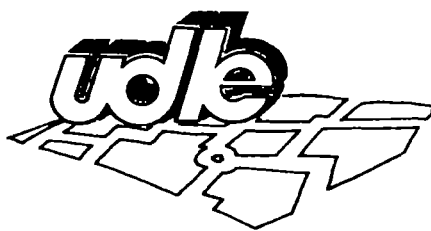


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*promotion of  
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Ministry of Education, Kathmandu

in Cooperation with GTZ, German Agency for Technical Cooperation

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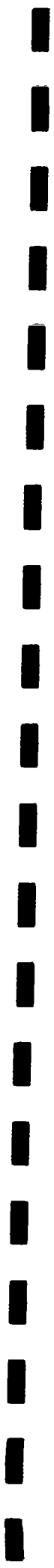
**LESSON PLANS**  
**ON**  
**RESPONSIBLE WASTE HANDLING**

**An Aid for Teachers**  
**to Prepare Lessons Concerning**  
**Environmental Sanitation and Hygiene**  
**in Urban Areas**

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## List of Abbreviations

BPEP	Basic Primary Education Program
CBO	Community Based Organisation
CDC	Curriculum Development Centre
CMA	Community Medicine Auxiliary
CTEVT	Centre for Education and Vocational Training
DOE	District Educational Officers
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Co-operation)
HMG	His Majesty's Government
HSEC	Higher Secondary Education Council
MLD	Ministry of Local Development
MoE	Ministry of Education
MoH	Ministry of Health
NFE	Non Formal Education
NGO	Non Governmental Organisation
UMN	United Mission to Nepal
VHW	Village Health Workers



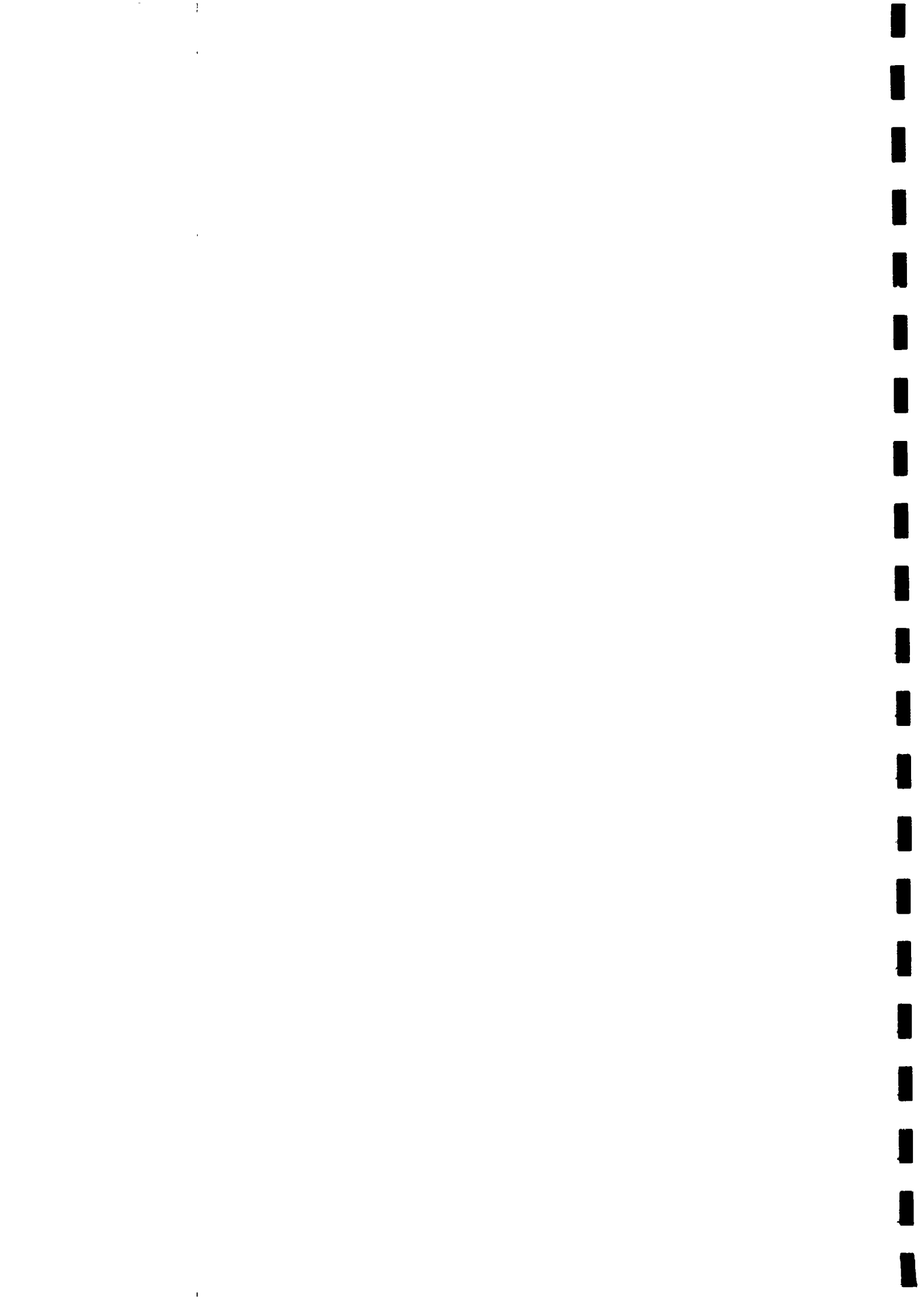
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## **Preface**

An important part of school education should be to improve the personal hygiene of the children and the sanitary living conditions of their school - and home environment. A lack of personal hygiene and environmental pollution in the surrounding of children endangers their health and their well-being.

The Ministry of Education co-operates since 1989 with GTZ to develop educational material suitable to teach children in learning how to develop personal strategies to contribute to a clean environment and to improve personal hygiene. In close co-operation with teachers lesson-plans have been developed which enable teachers to give lessons aiming at an improvement of the behaviour of children towards responsible waste handling. The lesson plans indicate how to make children aware of the waste problem and its consequences on various aspects, such as hygienic, aesthetic, ecological and economic level.

The lesson plans give guidance how teachers and students can inform themselves through investigation of their surrounding, analysing the problems of pollution and coming up with alternative ideas on an improved environment: the lesson plans provide information about technologies of responsible waste handling, such as waste avoidance, waste recycling and composting, adequate waste disposing, and strategies how to keep the environment clean.

The lesson plans aim at improved knowledge, skill and attitude of the children. Teachers who are not sufficiently informed on how to teach these aspects get detailed orientation on how to carry out the lessons. The lesson plans can be understood as a bridge between lacking knowledge of teachers who hardly had any pre-service education nor intensive in-service training and the need of participatory learning oriented educational concepts. At the same time, the lesson plans respect the time constraint of teachers, who usually allocate only very limited time for the preparation of lessons. Instructions can be read a few minutes before and during the lesson.

The preparation of the lesson plans presented in this booklet was carried out by a project team. We would like to thank Mr. R.R., Khanal, Dr. R.K. Maharjan, Ms. R.L. Nakami and Dr. Y. Pradhananga, Dr. K.N. Shrestha and Ms. V. Hatzfeldt (GTZ advisor) for their dedicated work to prepare these lesson plans. The intensive effort to evaluate the lesson plan concept with teachers and pupils revealed a concept which contributes to substantial improvement of teacher performance in the class. Experience proves that the lesson plans have a rather positive impact on children's knowledge, skill and attitude with regard to proper solid waste handling. This success would not have been possible if teachers co-operating in the long lasting evaluation procedure would not have intensively contributed on school level.

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## 1. INTRODUCTION

### 1.1 Basis of Co-operation

HMG with its Ministry of Local Development and the German Agency of Technical Co-operation as a development agency of the Federal Republic of Germany was co-operating for more than 15 years to improve the sanitary living conditions of the people living in the urban areas of the Kathmandu Valley. Project co-operation started in 1976 with a planning period. Implementation took place from 1978 till 1993. From the beginning of co-operation, the Project: "Solid Waste Management in the Kathmandu Valley" considered the co-operation of the people a very important component in its implementation strategies. It was felt that any technical approach not using the self-help capacities of people would fail because public institutions were not able to fulfill the tremendous and further increasing tasks of solid waste management: Due to higher per capita waste generation and a new structure of non-organic urban wastes the waste accumulation had increased drastically during the past. At the same time, the Kathmandu Valley attracted a growing number of people from rural areas adding to the already high urban population, thus implying further increasing problems in urban pollution. Industrialisation as a consequence of the growth of the population is another reason for waste management problems. (There is hardly any experience available how to cater for the wastes stemming from the newly established production units.)

HMG established the Solid Waste Management and Resource Mobilisation Centre SWMRMC to develop a new concept of solid waste management in Kathmandu and Lalitpur. However, SWMRMC was not designed to give *individual* service to the citizens due to the implied high costs. It would be impossible to finance such services in a poor country like Nepal. The people themselves have to bring their waste to collecting points, the containers. From there on the SWMRMC is responsible for managing the waste. Only together with the co-operation of the people the SWMRMC can achieve its target to leave the urban areas free of waste.

In various awareness programmes through the media and direct campaigns the population had to be reminded of their responsibility concerning their own waste; they had to be advised how to improve their behaviour towards proper waste handling.

The integration of awareness programmes and training towards improved behaviour in waste handling within the official curriculum of school education seemed to be of high importance, to make responsible waste handling a continuous learning process. About 45% of the population of urban areas are under 15 years old. Their improved awareness in responsible waste handling on the one hand aims at a long future. On the other hand they are supposed to bring their responsible, action oriented attitude into their families already during the time they receive classes.





## **1.2 Frame of Co-operation**

In 1989 the Ministry of Education and Culture together with the Ministry of Housing and Physical Planning decided that GTZ via its advisory team working with SWMRMC should assist in the integration of a programme for improving children's behaviour in proper waste handling in public school education of the urban areas of the Kathmandu Valley. Children had to be informed on waste management technologies, they had to be motivated to practice them within the school, the home and the immediate surrounding. In close co-operation with the Curriculum Development Centre.

- the curriculum for primary grade had to be elaborated in the subjects Health- and Environmental Education,
- a textbook, a teachers' guide and teaching material had to be developed,
- lesson plans had to be designed to allow the teachers to make best use of the newly developed material and the new participatory approach in learning.
- the elaborated curriculum together with the educational material had to be tested
- teachers had to be qualified (by in-service training).

In order to change behaviour a teaching approach, which made active participation of children an essential part of teaching, had to be chosen. As this differed fundamentally from the rote teaching methodologies formerly applied in schools, lesson plans had to be developed to guide teachers in actually applying the new teaching approach.

## **1.3 Project purpose, project results**

### **1.3.1 Project purpose**

The project purpose is to inform children on waste handling technologies and to develop from early age on proper habits, aiming at increased knowledge, skill and attitudes with regard to proper waste handling and increased hygienic awareness.

Before informing children and teachers and then motivate them to improve their behaviour towards responsible waste handling they have to become aware of the waste problem and its consequences on different levels: the hygienic and the mental level, the ecological -, the aesthetical, and the economic level. They have to be made aware of their own responsibilities and the necessity for their active co-operation. Being informed about appropriate waste handling technologies, having practiced them and being motivated to apply them in the school and its environment they are asked to bring the responsible action-oriented attitude into their families and communities.



### 1.3.2 Project Output

To achieve the project purpose, various results had to be obtained.

1. The curriculum had to be elaborated
2. Different types of educational material had to be developed and introduced.
3. Teachers and headmasters had to be motivated and trained.
4. Consultations had to be given out to allow appropriate integration of the new teaching approach into the curriculum and textbooks of secondary and higher secondary grades as well as of other institutions.

Based on the needs of the elaborated curriculum, the project aimed at the development of the following *material*:

1. Development of a textbooks
2. Preparation of pictorial teaching cards and posters
3. Preparation of lesson plans
4. Preparation of a teachers' guide.

At the same time, *teachers' training* was to be carried out to enable the teachers to make proper use of the material developed and to apply the newly introduced concept of education.

## 1.4 Project Implementation

### 1.4.1 Coverage of the Project

In the beginning, the project was to cover all grades of the public primary schools in the urban areas of the Kathmandu Valley starting with the first, second and third grade

As a next step, also private schools were included. They showed keen interest in the application of the teaching approach and the material developed.

Realising the growing importance for education in hygiene and sanitation related to waste and observing the positive effect of the new teaching approach the project was requested to finalyse the educational material for grade 4 and five to fully cover primary education.



Presently the material developed is modified in such a way that it can be used on national level, fitting into a series of textbook/guides for optional subjects.

At the same time the project team is requested to prepare a suitable concept for the utilisation of the material in the non-formal educational sector

Due to the wide scope of work to be carried out, in the formal- as well as the non-formal sector, a lot of "co-operating" partners had to be contacted. Details are presented in Graphic (1).

## **1.4.2 Project Progress**

### **1.4.2.1 Urban Area of Kathmandu Valley Primary Education Grade 1 to Grade 3**

In 1989/1990 the official curriculum of Health Education in primary level was elaborated to improve children's behaviour in waste handling and hygiene. The elaboration was done by specialist from the Institute of Education and the Institute of Medicine together with the specialists of health education section from the Curriculum Development Centre and a short term advisor from Planco/GTZ, forming the Supporting Committee for Curriculum Elaboration. A textbook for children of primary grade was developed, as well as pictorial teaching cards and a guide for teachers.

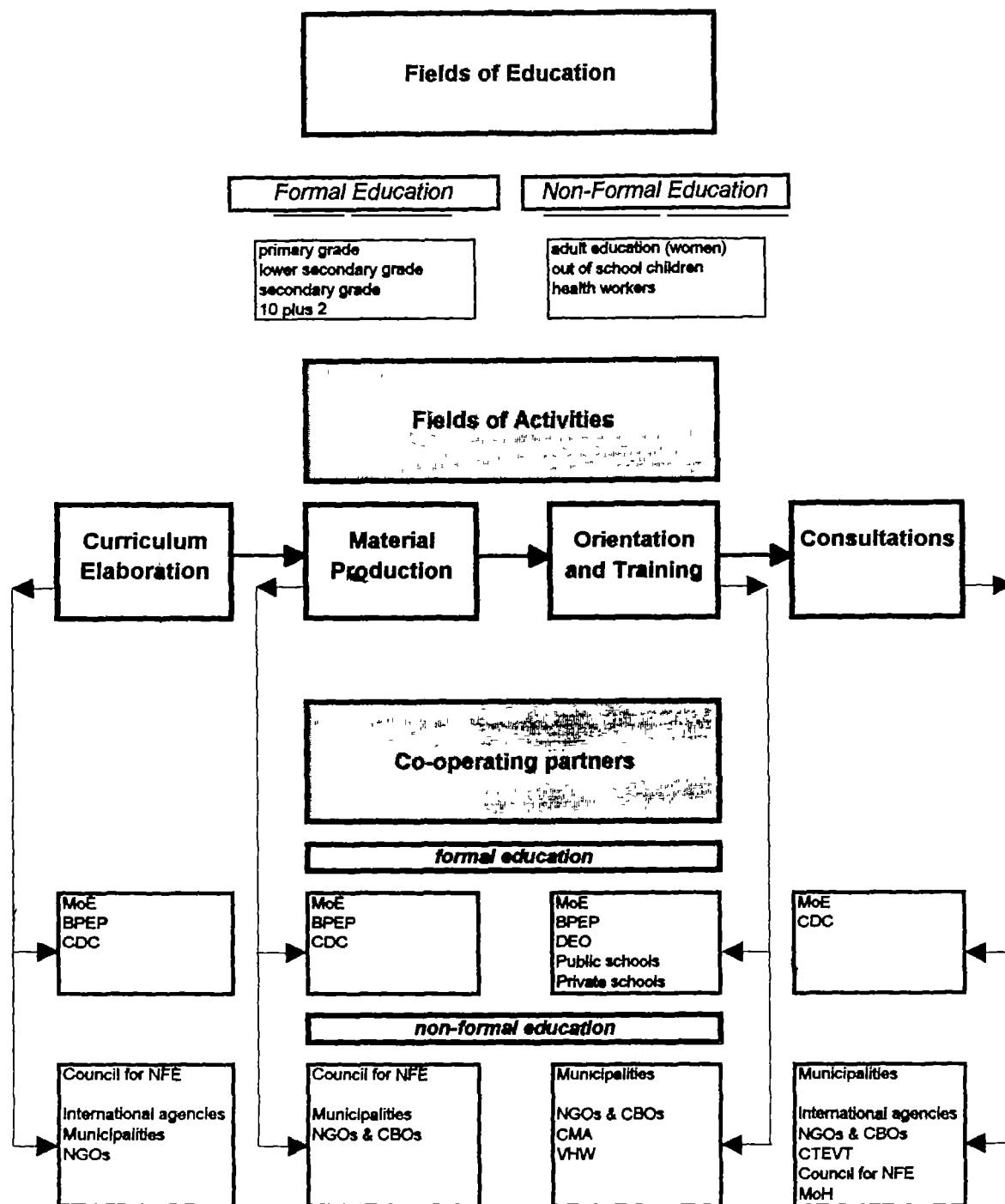
During 1991 the work concerning the integration of the elaborated curriculum was stopped due to political reasons and problems within the SWMRMC. In 1992 project implementation proceeded with a year of delay. Further delays incurred due to changes in political orientation: political changes as a consequence of democratisation revealed the need to change the national curriculum accordingly.

In 1992, the learning outcomes for all grades of primary school, the textbook, guide and the lesson-plans for 1st to 3rd grade had been finalised. However, to make the elaborated curriculum an integrated part of the official national curriculum, the Supporting Committee for Curriculum Elaboration had to adapt the elaborated curriculum in form and partly in contents to the new national curriculum, which is being introduced to the primary grade between 1993 and 1997. This again implied some re-orientation of material.

Additional field tests became necessary: The selected teachers and observers, who had participated already in the tests in 1990, participated in the adaptation of the educational material.



Graph (1): Main Activities and Co-operating Partners



- |       |  |     |                               |
|-------|--|-----|-------------------------------|
| BPEP  | Basic Primary Education Program                        | MLD | Ministry of Local Development |
| CBO   | Community Based Organisations                          | MoE | Ministry of Education         |
| CDC   | Curriculum Development Centre                          | MoH | Ministry of Health            |
| CMA   | Community Medicine Auxiliary                           | NFE | Non Formal Education          |
| CTEVT | Centre for Technical Education and Vocational Training | NGO | Non Governmental Organisation |
| DEO   | District Education Office                              | VHW | Village Health Workers        |





In the beginning of the school year 1993 training workshops were given to teachers and headmasters of public (out of 151 public schools 138 participated) and (about) 80 private schools in the urban areas of the Kathmandu Valley. Each school, having participated in the training workshop received the educational material for first to third grade. More than 30 000 children were taught now how to improve their waste handling and through this their personal hygiene.

During the first and second school year many schools have been visited, follow up meetings with teachers, headmasters, the District Educational Officers and the Joint Secretary from the Ministry of Education have assisted to make the elaborated curriculum an integrated part of the national curriculum to be implemented initially in the Kathmandu Valley.

In 1994 assistance was given to the teachers of first, second and third grade to make proper waste handling an effective part of the everyday teaching.

#### **1.4.2.2 Urban Area of Kathmandu Valley Primary Education Grade 4 and Grade 5**

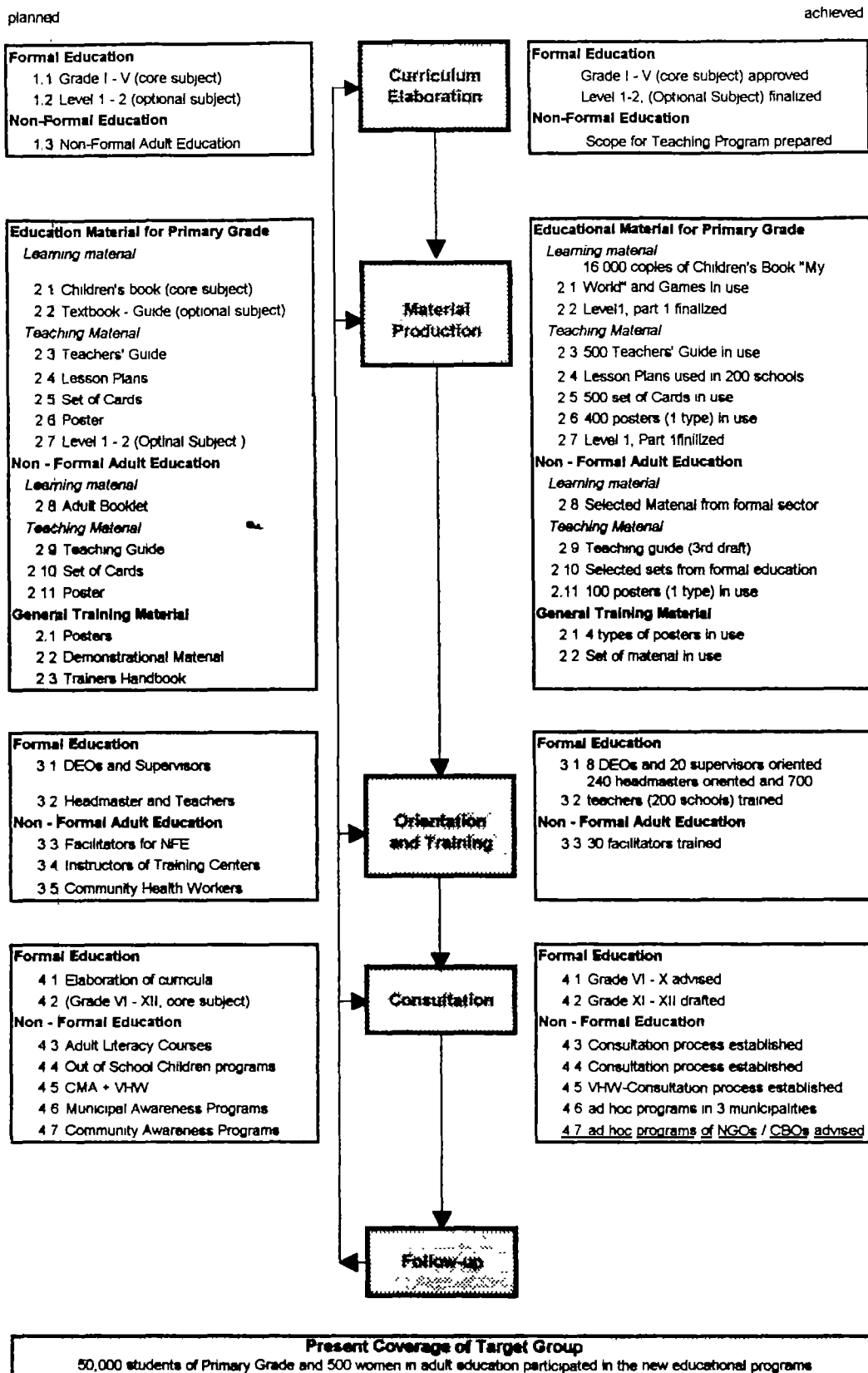
In 1993/1994 the project work was extended to additional grades of primary education to fully cover it. The elaboration of the curriculum had to be adapted to the new curriculum, prepared by BPEP and lesson-plans were prepared and tested for 4th and 5th grade. It was ready to be implemented in the school year, 1995. The learning material, consisting of selected chapters and games out of the book "My World", already had been developed on the basis of the learning outcomes for all grades of primary education. The children's book "My World" is directed to students of grade 1 to 5. This might imply some weaknesses. However, these should be accepted to reduce development costs.

#### **1.4.2.3 National Coverage of Primary Education**

The growing waste problems in other cities of Nepal had lead to the request to prepare one package of educational material concerning proper waste handling for optional subject. In the new curriculum three hours a week are dedicated to optional subjects, from which the teachers and students can choose. Solid waste handling was to be included as one of the optional subject. The textbook/guide has to be prepared in the same way as for other optional subjects. The educational material already developed by the Supporting Committee for Curriculum Elaboration serves as a basis. The Basic Primary Educational Project (BPEP) being responsible for the new curriculum, textbooks and teachers' training for primary grade had asked the Supporting Committee to develop the textbooks/guides in cooperation with them.



**Graph (2): Objectives and Achievements**





For the 5 classes of primary grade the first, second and third level of learning outcomes have been developed and the guide/textbook for the first level will be ready for illustration by the end of this year. The implementation of this optional subject will make waste handling techniques a permanent part of the national curriculum in all cities and communities in Nepal, facing a waste problem. Therefore it can improve the waste handling behaviour of teachers, children and a number of their parents throughout the country.

#### **1.4.2.4 Extension to Secondary Education**

The collaboration of Supporting Committee for Curriculum Elaboration was requested in the development of the national curriculum for grade 6 to 10 and 11 and 12. Consultations were given to the Curriculum Development Centre, the Higher Secondary Education Board and the Ministry of Education.

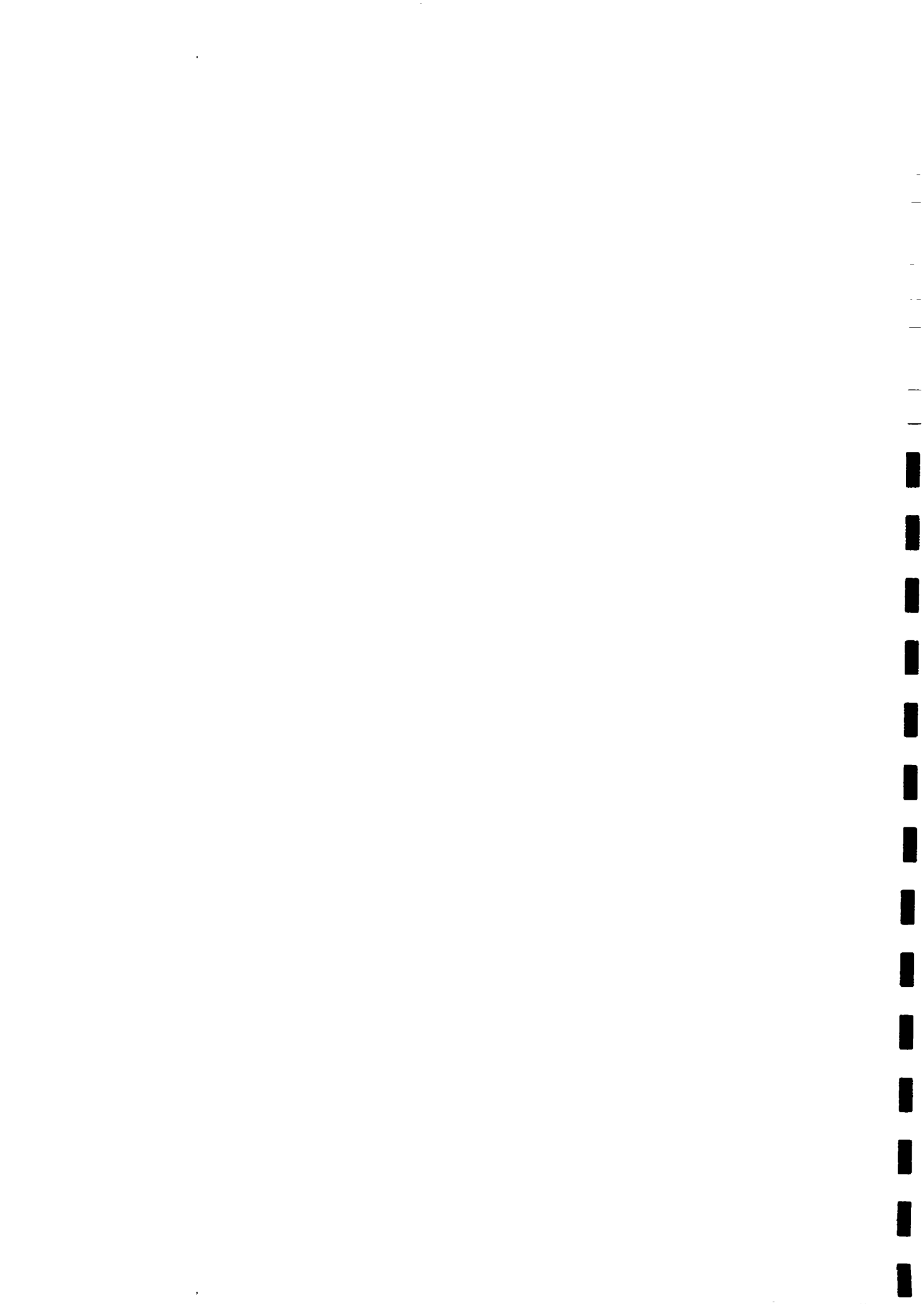
#### **1.4.2.5 Non-Formal Education**

The growing awareness of the waste problem in the Kathmandu Valley has also lead to requests from municipalities and NGOs/CBOs for assistance in including proper waste handling in non-formal education. Several organisations like Nepal Red Cross Society, the United Mission to Nepal and the Community Health Development Programme from the Lalitpur Municipality have already worked with the educational material as prepared for the schools. They found it very effective but asked for some adaptations to their learning conditions (mostly adults, who attend classes in the evenings, they are barely literate. Workshops for organisers and facilitators of non-formal education were given; a guide on how to teach environmental sanitation to adults had been designed in co-operation with facilitators.

#### **1.4.5 Lesson-Plans**

In the course of project implementation about 100 lesson plans were developed. They cover fields of *environmental education* and *health education*. In environment education, the unit "environmental contamination" was elaborated. In health education, lesson plans have been developed for personal hygiene, environmental sanitation (solid waste, excreta disposal and water) and communicable diseases.

The final function of the lesson plans within the setting of the educational system still remains to be defined: Lesson plans were developed on test basis to find out whether they can contribute to improve teacher performance. Their functions have to be seen against the background of poor teacher pre- and in-



service training. Whether the contribution proves to be effective with regard to teacher performance and efficient as a tool of teacher in-service training still remains to be evaluated.

## **2. CONCEPT FOR THE DEVELOPMENT OF LESSON PLANS**

### **2.1 Lesson plan as a model for teaching in a participatory way**

The Ministry of Education, MoE, through the Curriculum Development Centre, CDC, which develops on the national level the curriculum for schools, asked the Supporting Committee for Curriculum Elaboration to develop lesson plans to guide teachers in some fields of environmental education. The MoE was of the opinion that teachers should learn to prepare their lessons, in order to

- use a more participatory approach of teaching in their classes
- to plan their lessons more systematically and
- to evaluate constantly to what extent they achieved their learning goals.

The lesson plans should serve as a model to enable teachers to improve their teaching abilities. Teaching in school should turn from rote learning to a participatory, active learning approach of teaching. This kind of guidance was felt necessary because the majority of teachers never received any preparation in teaching skills, adequate guidance was required to teach more effectively.

A study about the teaching material, developed by the CDC and cooperating agencies, showed that a few teaching guides had already been prepared which seemed to be too difficult for teachers of primary grade. Other teachers' guides were easily understood by teachers. They aimed at improving the teaching skill of the teachers, but they were far too extensive. Hence, these guides were not or only hardly consulted by the teachers.

The study also showed that many teachers allocated no or only little priority to health and environmental education in the recent past. The guidelines given in the national curriculum which gave information on what and how to teach health education, were too general. Textbooks for the children did not exist for the first three schoolyears of primary grade

For all those reasons it was decided to develop lesson-plans as a teaching guidance which is simple to follow and which needs no or at least very little preparation. The information has to be limited so the teacher is able to teach without extensive preparation. Only a few minutes of preparation are needed to follow one lesson plan as a guidance for teaching. Lesson plans had to be short in indication. The plans consist of one to two pages. They contain only the very necessary information for immediate teaching about:

- the objectives of each particular lesson,





- the subject matter, (in brief)
- the demonstration material needed for each lesson,
- the teachers activities,
- expected children's behaviour and
- the approximate time which is required for each activity

Once the teacher has become familiar with using a lesson plan, those lesson plans can facilitate them to use the educational material skillfully and introduce the learning activities efficiently. At the same time the lesson plans are supposed to serve as a sample for planning systematically classes in other subjects.

The development of lesson plans for each lesson implied a considerable amount of workload. Nevertheless, it was decided to meet that request due to the following reasons:

- to give teachers guidelines how to use the new, more participatory learning approach;
- to provide an example which can serve teachers to teach more systematically and effectively;
- to make the teaching of health- and environmental education easier thus increasing the dedication of teachers on this issue;
- to motivate the teachers to teach children about waste handling even if they belong to cast societies which are not supposed to deal with waste;
- to assist teachers in motivating and guiding children to learn about reduction of waste generation, reuse of material, recycling and proper waste handling;
- to increase the chance to actually improve the behaviour of the children in solid waste handling.

## **2.2 Lesson plans and other educational material for the elaborated curriculum**

Lesson plans provide only the essential information to enable the teacher to teach in a participatory way. At the same time teachers must be in a position to evaluate to what extent the objectives of a lesson are achieved.

For further in depth preparation of a lesson other material has been prepared

### **Guide Book**

- the guide book gives much more extensive information to the teacher. It contains:



- a scope and sequence chart of the topics being taught, integrated into the national curriculum of the CDC;
- explains the position the elaborated curriculum holds in the national curriculum;
- it presents in detail the objectives which should be achieved in each topic,
- it also contains detailed explanations about the teaching approach;
- gives an interpretation to the chapters in the children's book and
- didactic, methodological ideas how to use the children's book, the games and the teaching cards in the learning process;
- the guide finally provides background information about proper waste handling.

The teachers get encouraged again and again to study the teacher's guide, but experiences show that they hardly do so. The study coincides with the experiences the CDC had made concerning other teaching guides. Nevertheless each school receives a few manuals which serve as a resource material to give interested teachers the possibility to study more in detail the new teaching approach especially for the chosen subjects.

#### Teaching Cards:

- As a motivating teaching material the teaching cards were developed to motivate teachers and children to understand the problem of uncontrolled waste accumulation and the necessity to develop a responsible action oriented attitude.

#### Children's Book

- The children's book serves as a motivating learning material. It consists of attractive, funny stories and games, each one leading to actions by which the students learn skills of proper waste handling.

The lesson plans indicate when each of the teaching- and learning material should be applied in the teaching process and in what way it should be applied.

## 2.3 Evaluation of the Lesson Plans

### 2.3.1 Evaluation Cycle

In the development of the educational material three factors were highly respected:

- The material had to be prepared in a way that teachers and children could easily understand it.



- The material had to be motivating, presenting real life situations of the children. The illustration and the stories had to be attractive and funny. Only by this way a topic like waste could be accepted in Nepali schools.
- The economic factor of the educational programme had to be respected (keep the material cheap)

The educational material was developed in close cooperation with the Ministry of Education and its acting institutions, the Curriculum Development Centre and the Basic Primary Education Project. It was designed in a way to motivate teachers and pupils to act responsibly in their homes and neighbourhood. On the one hand they aim at creating awareness towards the hygienic risks from improper waste handling and at developing a "self help approach" motivating people to bring their waste to public containers. On the other hand children are being taught and inspired to reduce their waste production by consuming consciously and by recognising the value of waste for possible manual reuses and composting as well as industrial recycling.

The development of proper teaching - and learning material is not only a desk work. The material needs proper field testing to make sure that it will contribute to appropriate knowledge development, an increase of skills. As a main focus it should have a positive impact on attitudes by changing individual behaviour of children. To achieve this, a dynamic, time consuming evaluation cycle had to be applied to test the material in the field and to revise and adapt it.

The practicability of the educational material and the proposed activities was tested on two levels:

In the first test the educational material was given to a limited number of teachers, who were responsible for teaching health education in their respective schools. The teachers gave a feed back on how they understood the educational material and on the possible use in the public schools. They gave, whenever necessary, recommendations for improvement.

In the second test teachers applied the improved educational material in their schools, teaching about 300 children in public schools. Monitoring of the teachers and of observers from health- and educational institutions during the classes were the basis for improving the elaborated curriculum and its educational material. Once the understanding and the practicability of the teaching - and learning material (including the proposed activities) was tested, teachers, observers and the Supporting Committee for Curriculum Elaboration improved the educational material for the trial teaching.

Trial teaching was prepared in selected schools in the three cities of the Kathmandu Valley in order to verify or falsify if the educational material and the proposed learning activities were appropriate to achieve the learning outcomes mentioned in the curriculum on the knowledge level, the skill- and attitude level. In 20 schools pupils, their parents at home, teachers and headmasters were questioned and their behaviour was observed before and after trial teaching.



During the 5 months of trial teaching regular monitoring from teachers, as well as observers gave ample information on improvement in the behaviour of children. Improvement in children's behaviour were noticeable in the classrooms, school compound and also in the home environment, even after a short period of 5 months. For example there was an increase of 67% of children, identifying the value of waste and finding ways of reuse, a 30% increase in proper disposal of waste into the container and an increase of 23% participating in cleaning activities.

After evaluation of the data the educational material was finalised.

### **2.3.2 Testing and evaluating the lesson plans**

Together with the Chief of the Curriculum Development Centre, the CDC, a health specialist and a language specialist for primary grade from CDC, 97 lesson plans were developed for grade 1 to 5. The lessons were directed to environmental- and health education focussing on proper waste handling in urban areas. The lesson plans cover all objectives mentioned in the elaborated curriculum.

The lesson plans were tested on two levels,

1. Level of understanding and practicability of the proposed activities
2. Level of achievement of proposed objectives

The sequence of testing and evaluating the lesson plans was as follows:

- (i) Evaluation and revision of the first draft by a small group of teachers (2 weeks)

Selected teachers from 15 schools in Kathmandu, Patan and Bhaktapur revised the lesson plans. Their comments towards improvement of the lesson plans and adaptation to the reality of every day teaching in the public schools were included.

- (ii) First class room tests in selected schools (4 weeks)

Teachers followed the improved lesson plans in the schools, using the proposed educational material. During the classes senior teachers and external experts working as observers in the classes systematically observe the classes and gave comments to the practicability of each lesson plan. On the basis of experience gained, the lesson plans were improved together with selected observers and teachers.

- (iii) Mid-term second classroom tests in selected schools





The improved lesson plans, well understood by teachers, and adapted to the teaching possibilities in the schools were given to other selected teachers of 12 schools in the Kathmandu Valley together with all other improved educational material, children's book, games and teaching cards. Within a 5 months trial teaching in the 12 schools teachers and external experts again systematically commented to what extent children achieved the objectives given in each lesson plan. The lesson plans which could not assist in achieving those objectives were changed with the suggestions of the teachers and observers.

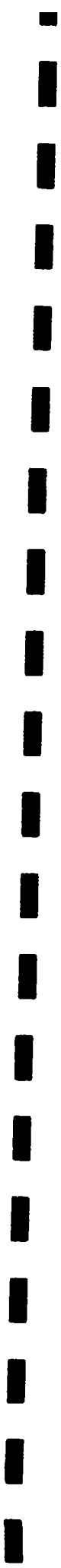
After this long process of adapting the lesson plans to the specific classroom situation they were well understood by teachers, who did not have any difficulty in following them. At the same time the lesson plans were found appropriate for teaching in the public schools of the Kathmandu Valley. The proposed activities could be carried out even in schools with very limited facilities. The objectives proposed on top of each lesson plan as well as the objectives given in the elaborated curriculum could be achieved, in case the lesson plans were systematically and properly followed.

#### **2.4 Implementation of the lesson plans**

Considering that many teachers are not trained at all to teach at schools, it could not be expected that in the future they would receive training in teaching proper waste handling. That is why the educational material was prepared in such a way that they are self-explanatory and that no further training was required. Nevertheless it was decided by the MoE to give a 2 to 3 days training workshop to the teachers of the urban primary schools of the Kathmandu Valley. District Educational Officers, DEO, invited the schoolteachers and headmasters and participated together with supervisors of the district. The target of the training workshop was

- to motivate the teachers to teach about proper solid waste handling
- to familiarize them with the new, participatory teaching approach, the educational material and the main activities
- to reassure them, that the elaborated curriculum is an integrated part of the official curriculum of the Ministry of Education, at least for the Kathmandu Valley
- to give teachers a chance to gain confidence in teaching the topic solid waste handling, applying the proposed teaching approach and using the educational material and following selected lesson plans during the training.

In the first year of implementing the elaborated curriculum, the visits to school and the regular follow up meetings with teachers showed that many teachers still did not follow the lesson plans systematically. Though the teachers agreed



that they did not have any difficulties in following the lesson plans many preferred to use the educational material: the children's book, the games and the cards without looking at the lesson plans. The main reason was that they were not used to follow lesson plans and felt uneasy using them in front of the students. The teachers who had received training in the faculty of education to become a professional teacher (about 10 %) had already learnt how to develop lesson plans and how to follow them during the classes. But during their daily school teaching they lost the habit of doing so. Also they had to be encouraged to follow the lesson plans. But very quickly they realized the importance to follow the lesson plans systematically.

In the second year of implementation of the elaborated curriculum those teachers who followed the lesson plans and therefore achieved the target much faster than the children improved their behaviour towards proper waste handling could convince more teachers to try to follow the lesson plans systematically. Now about 65 to 70 % of the teachers teaching in the subjects health- and environmental education follow the lesson plans.

## **2.5 Future strategy**

In the follow up meetings the teachers will further encourage to follow the lesson plans systematically. The experiences of those teachers who already follow them will assist in convincing more teachers.

During the training teachers study and present selected lesson plans. The visits in the schools show us that those lesson plans practiced during the training course are also followed later in the classroom by almost all teachers. Therefore, in future, the training procedure will put more emphasis on letting the teachers experience themselves the sequence of the lesson plans and at the same time find out by themselves while following systematically the lesson plans they can achieve their objectives more easily. If the District Educational Officers permit us to extend the days of training for one more day, teachers could go through almost all lesson plans. Furthermore the collaboration with the supervisors of the districts will be improved. They will get some orientation about monitoring the classes and giving support to the teachers. They receive specific supervision forms to monitor the progress of the teachers more systematically and encourage the teachers at the same time, to teach more effectively by following the lesson plans.

The lesson plans presented in this booklet are translated from the original versions which were prepared in Nepali. Hence, the lesson plans as presented here are not used by teachers, who are not used to communicate in foreign languages. The translation was prepared to allow other experts working in the field of education to inform themselves on the work carried out in Nepal.



### 3. LESSON PLANS FOR GRADE 1 TO 5

#### 3.1 Introductory Remarks for the Teacher

These lesson-plans have been developed to assist teachers to teach to Grade 1 Grade 2 and Grade 3 in the Unit:

- Environmental Contamination of the Subjects Environmental Education

and the Units:

- Personal Hygiene, Environmental Sanitation and Communicable Diseases of the Subject Health Education.

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For Grade 4 and 5 lesson-plans have been developed in the Units:

- Environmental Pollution of the Subject Environmental Education
- Environmental Cleanliness of the Subject Health Education

Only those lessons have been selected under the above mentioned units, which are related to sanitation problems and its consequences in urban areas.

The lesson-plans are only directed to the teachers and should not be read to the children!

It is assumed that solid waste-management is neither very familiar to the teacher nor does it seem very attractive to them. That is why a teaching-approach has been developed which makes it interesting for teachers to teach and attractive for the children to learn.

The main objective is not only to improve the knowledge, but to change the attitude and with the attitude, the behavior of children; that is why it seems essential to use other methods than only the ones which improve the knowledge of the children.

Different methods have been included in the teaching-approach like: discussion, role-play, games, paper-recycling, composting and other activities inside and outside the classroom.

In this way it is necessary to stimulate teachers and the children to adopt a new attitude towards our direct environment, which needs our care. We choose very little lecturing because we believe that children rather change their behavior when they participate actively, learn by experiences and through



actions. This way children should come to a deeper understanding than through pure repetition.

Each lesson consists of:

### I Objectives:

- related to knowledge
- Children learn on a theoretical level. Children recall information which is based on the mental process. These objectives should be achieved in each lesson and should be evaluated at the end of each lesson.
- related to skill
- Children learn on a practical level. These objectives can be partly achieved step by step and partly in one lesson. We decided to relate also those objectives to skill, which are still theoretical, but directed to practical actions;
- related to attitude
- These objectives are directed to change the consciousness and the way of feeling of children and can only be achieved step by step. We mention objectives on the attitude level in each lesson plan to remind teachers, which special attitude we intend to change in each lesson.

The teacher should read the lesson plan from the left all the way to the right, starting with: "Subject for teaching", then "Material needed", "Teaching Activities", "Learning Outcomes" and "Estimated Time". We start to read the text under 1 and only after having read every section of 1, we go to 2, then 3 and so on. This way the teacher has all necessary ingredients at hand to teach each activity

### II Subject for Teaching

The "Subject for Teaching" gives the main information, which teachers should know to be able to perform each activity suggested in the lesson plan. We sometimes advise the teacher to read again the introduction. "Reasons for the Elaboration of the Curriculum/Educational Material for Environmental Concern in Urban Areas" and the guide to the book: 'My World' for further information.

The "Guide to the Book" contains interpretations of the stories presented in the book, which can help the teacher to understand the meaning of each story and game, if she/he feels it is necessary.

Though the "Subject for Teaching" in the lesson-plan gives sufficient information to allow the teacher to start teaching without further facts.





### **III Material needed**

This column of the lesson plan indicates the educational material which is needed for each activity. The teacher should provide or prepare this material before the lesson starts.

### **IV Teaching Activities**

The "Teaching Activities" give suggestions what the teacher should do, which steps she/he should take and how he/she should teach.

### **V Learning outcomes**

The "Learning Outcomes" indicate very clearly what the students are actually supposed to do in each activity the teacher proposes. This way the teacher can ascertain whether the objectives of the lessons have been achieved or not, whether the pupils have improved their knowledge, skill and attitude, which they are supposed to learn within the lesson.

### **VI Estimated Time**

The estimated time we propose gives the teacher an idea how long more or less each activity should take in order to follow all suggested activities in one lesson. The teacher can accept this time-estimation or can change it due to her/his teaching experience. She/he should consider though, that all steps proposed in the lesson-plan can be conducted.

### **VII General Information**

We sometimes refer to the Nepali language class or the Art class, where certain activities can be followed up, providing material for those lessons and possibly enriching them.

The book should always be collected after each lesson. This way books last longer and many groups can work with the same book.

We sincerely hope that these lesson-plans together with the educational material can be of assistance for teachers to make the teaching enjoyable for themselves and for the children!



### 3.2 Distribution of Lessons in Grade 1 - 3

The following lesson-plans are developed to assist teachers in teaching those lessons of the subjects "Health Education" and "Environmental Education" to grade 1 to 3, which are related to sanitation problems in urban areas.

In the existing curriculum the following units are related to waste problems:

in the subject Environmental Education:

Unit 4 : Environmental Contamination, which will be taught in each grade 4 to 5 lessons,

in the subject Health Education:

Unit 1 : Personal Hygiene, which will be taught in each grade in 2 to 3 lessons,

Unit 2 : Environmental Sanitation, which will be taught in each grade in 11 to 15 lessons,

Unit 3 : Communicable Diseases, which will be taught in each grade in 3 lessons.

To teach about Environmental Sanitation in the urban areas is of particular importance as the accumulation of people living so close together and the considerable production of diverse waste are causing severe problems on different levels. We decided to give extra lessons in this Unit and form the following Sub-units:

- Sub-unit 1 : Solid Waste
- Sub-unit 2 : Excreta Disposal
- Sub-unit 3 : Water

All together we developed 22 lesson-plans in 1st grade, 24 lesson-plans in 2nd grade as well as in 3rd grade.



**3.3 LESSON PLANS GRADE I****TABLE OF CONTENTS:****ENVIRONMENTAL EDUCATION****Unit 4: Environmental Contamination**

- Lesson 1: Harms due to dirty environment of classroom
- Lesson 2: Solid waste in the environment
- Lesson 3: Clean classroom environment
- Lesson 4: Reasons for dirty classroom environment and its related harms
- Lesson 5: Responsibility to keep the classroom clean

**HEALTH EDUCATION****Unit 1: Personal Hygiene**

- Lesson 1: Method of hand washing
- Lesson 2: Rules to be following in hand washing
- Lesson 3: Effects of dirty hands

**Unit 2: Environmental Sanitation***Sub-unit 1: Solid waste*

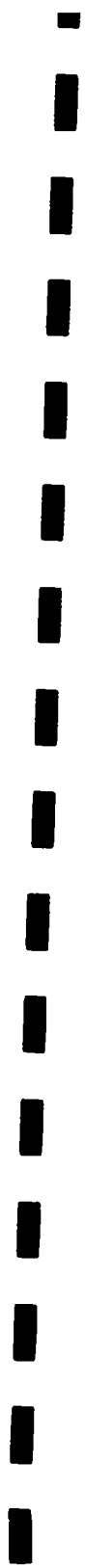
- Lesson 1: Ways of keeping the classroom clean
- Lesson 2: Classification of waste materials composting
- Lesson 3: Reusing the leftovers
- Lesson 4: Compost production
- Lesson 5: Preparation to recycle paper
- Lesson 6: Responsibility of waste handling in the class room
- Lesson 7: Paper recycling practise

*Sub-unit 2: Excreta Disposal*

- Lesson 1: Proper/Improper defecation places at school
- Lesson 2: Defecation in the open

*Sub-unit 3: Water*

- Lesson 1: Importance of safe and clean drinking water
- Lesson 2: Uses of water in school



**Unit 4: Communicable Diseases**

Lesson 1: Introduction to communicable diseases

Lesson 2: Lice infestation

Lesson 3: Preventive measures of communicable diseases





**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade I**

**Lesson 1** Harms due to dirty environment of the classroom

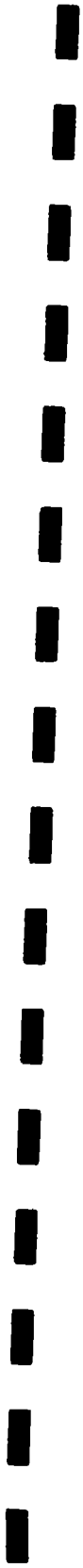
**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:** a) point out the harms from improper waste disposal.

This lesson also helps the students to develop following attitudes.

**Attitudes:** b) become curious about harms of improper waste disposal.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 The story presents a thoughtless and careless attitude of throwing away leftovers onto the street. They pile up and create a problem.  (See manual, guide to the book page 5/6)	Books "My World", "Animals help us" page 7-10	1 First, the teacher distributes the books and invites children to look at the pictures page by page, then teacher reads the text. The teacher asks the students to comment on the story	1 Students comment that we should not throw waste indiscriminately	20 minutes
2. Waste thrown away improperly harms us in different ways e.g unpleasant environment, bad smell and view	Books "My World", "Animals help us" page. 7-10	2. Teacher asks what are the harms from dumped waste which is piling up as in the story. The children give their answers to the class. The teacher helps if necessary to identify the proper answers	2. Students name different harms from improper waste-disposal	7 minutes
3 See above "subject for teaching" Sections No. 1 and 2	No material needed	3. The teacher asks what harms may derive from dumped waste in the classroom. Children are asked to comment to the whole class, and the teacher will help if necessary	3 Students name the harms which may be caused by dumped waste in the classroom.	6 minutes
4 See above "subject for teaching" Sections. No. 1 and 2	Blackboard	4 The teacher summons up what children say and writes those comments onto the blackboard. "Harms of improper waste-disposal", then she/he reads the list to the children and lets them repeat and comment	4. Students name harms of improper waste-disposal.	7 minutes



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade I**

**Lesson 2: Solid Waste in the environment.**

**Objectives:** At the end of this lesson, students will be able to.

**Knowledge:**

- a) name different leftovers
- b) describe a proper way of waste disposal

This lesson also helps the students to develop following attitudes.

**Attitudes:**

- a) enjoy the active involvement in solving the waste problems in the classroom

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. Story from the book: Children throw waste in the street Cat and mouse don't like it and try to stop them.	One book. Animals help us (only for the teacher).	1. The teacher asks the children if they recall the story about "Animals Help Us". Some children will tell the whole class. Teacher helps out; if necessary, and completes the whole story again, holding up the pictures of the book.	1. Children narrate the first part of the story: "Animals Help Us"	10 minutes
2. Waste is piling up in front of their doors.	Page 10-12 of the book	2. The teacher distributes the books and invites children to look at the pictures scene by scene, then teacher reads the text of the story. Then teacher asks students to comment.	2.a Children explain what cat and mouse are doing 2.b Children name leftovers in the street	15 minutes
3. The possible end of the story is that the children change their attitude and do not throw away any more waste improperly. Children could present their stories by role playing.	No material required	3. The teacher asks children to close the book and imagine how the story could end. Teacher assists if needed.	3. Students name possible ways to end the story	10 minutes
4. Waste should be disposed in waste containers or baskets.	No material required.	4. The teacher asks the students where they dispose their waste materials. Then, he explains proper ways of waste disposal	4. Children name waste container as the right place for waste disposal	5 minutes



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade I**

**Lesson 3: Clean classroom environment**

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge:**

- a. differentiate between a clean and a dirty place  
 b. name advantages of having a clean classroom environment

**Skill :**

- a. observe the classroom environment in order to identify whether it is clean or dirty

This lesson also helps to develop the following attitudes:

**Attitudes:**

- a. realize the need for keeping the classroom environment clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. Our environment or surrounding areas, our living, playing and reading places all need to be kept clean. Our classroom is our reading, studying and writing place, we should also keep it clean	Not needed	Teacher will ask the students how clean and dirty places look like. After the students' responses the teacher will again ask the students to name any clean or dirty places around the school they have seen. Teacher asks to name activities students do in the classroom	1 a Students say how clean and how dirty places look like  1.b Students name the functions of their classroom	7 minutes
2. Our classroom becomes dirty if there are following items. <ul style="list-style-type: none"> <li>- pieces of paper</li> <li>- dust</li> <li>- chalk pieces (lying everywhere)</li> <li>- remaining parts of foods</li> <li>- pieces of plastics etc</li> <li>- dirty walls</li> <li>- dirty floor</li> <li>- dust which comes after sharpening pencils</li> </ul>	Chalk, duster, board	The teacher will ask the students to look at the places near them: the floor, corners, under the desks or benches, the walls etc. The teacher will instruct the students to look only and not leave their seats. After the observation, the teacher will ask the students to describe dirty conditions in the classroom. The teacher will write all observations concerning contamination of the classroom on the blackboard. Teacher will add some dirty items if necessary. The teacher will read it to the students and ask them to repeat.	2 a Students name dirty conditions in a classroom  2.b Students name the items which they saw in different places of the classroom	15 minutes
3. Because we spend almost the whole day in the classroom, it should always be kept clean. If we can keep it clean there are many advantages such as <ul style="list-style-type: none"> <li>- it looks nice</li> <li>- reading, writing or learning is more enjoyable in a clean classroom</li> <li>- no flies</li> <li>- no bad smells</li> <li>- no risk of getting diseases</li> </ul>	Chalk, duster, board	The teacher will ask the students what the advantages are of having a clean classroom environment. In conclusion, the teacher will explain the different advantages of having a clean classroom. The teacher will repeat all advantages to the students and ask them to repeat	3. Students name the different advantages of having a clean classroom environment.	7 minutes
4. See No 3	Coloured pencils, papers for each child	Teacher asks children to paint a room where we like to learn or a room here they do not like to learn. Teacher asks each student to write the name on the picture in the end of the class and collects the paintings.	4. Students paint a clean or a dirty learning space.	11 minutes



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade 1**

**Lesson 4: Reasons for dirty classroom environment and its related harms**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a. name the reasons for a dirty classroom environment
- b. describe the related harms due to dirty classroom environment
- c. list the ways for keeping the classroom environment clean

This lesson also helps to develop the following attitudes:

**Attitudes:**

- a. became curious about one's own attitudes

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1. We stay in our classroom almost whole day Therefore, we should keep our classroom environment clean We make the classroom environment dirty because of the following activities</p> <ol style="list-style-type: none"> <li>a) by throwing waste pieces everywhere</li> <li>b) by eating in the classroom and and spilling food everywhere</li> <li>c) by carelessly sharpening the pencils and throwing the dust in the classroom</li> <li>d) by not cleaning the classroom regularly</li> <li>e) by throwing pieces of chalk in the classroom</li> <li>f) by touching desks and ails etc. with dirty hands</li> <li>g) by wwriting on the board which blows dirts into the classroom</li> <li>h) by carrying dirt under the feet into the classroom</li> </ol>	<p>Paper pieces, pencil, pencil sharpner, few peels of fruits, brooms, basket</p>	<p>Teacher will throw paper pieces, one or two fruit peels and sharpens the pencil in front of students, he throws the dust which comes after sharpening the pencil on the floor Teacher asks to name more ways of letting the classroom become dirty</p>	<p>1 Students name the reasons of dirty classroom environment</p>	<p>10 minutes</p>
<p>2 If our classroom becomes dirty, it will harm us in several ways, like</p> <ol style="list-style-type: none"> <li>a) it looks dirty, we do not like to live, read etc in such places</li> <li>b) touching dirt, parasites can get to our mouth and make us sick</li> <li>c) it attracts flies and other insects Flies bring diseases causing organism in their feet from the dirty places. If they sit on our food or even on our hands, we will be sick by eating those foods or by eating the foods with the hands where such flies had sat</li> <li>d) we can get accident by slipping on the peels of the fruits.</li> <li>e) it gives bad smells</li> <li>f) it attracts rats</li> </ol>	<p>Cards: 7, 33, 19, 20 flannel board</p>	<p>Teacher will stick the picture 7 on the flannel board and asks the students wether the environment there is clean or dirty, there are flies and rats or not? If we make our classroom dirty the same will happen to our classroom or not? etc He will make it clear by question and answer Then he will show the picture 33 and explains the students that the fly over there has many pathogenic organism on its feet. These organisms cause diseases to us We have to see them through a microscope (as shown in the picture). These organism enter our body and make it sick The teacher asks, in which places we usually find most flies After getting the response from the students the teacher will explain how the flies spread the disease in us. Then, teacher removes the pictures and replaces it with the picture 19 on the flannel board and ask the student 'what is the boy eating there ? Then he will stick the picture 20 and again ask the student 'if we throw such peels in the classroom whether we will get accidents by slipping on it or not ? Finally, the teacher will describe each of the harms of dirty environment to the students and ask them to repeat it.</p>	<ol style="list-style-type: none"> <li>a Students recognize the dirty environment</li> <li>b Students say that dirty places contain diseases causing organism</li> <li>c Students say most flies are to be found in the dirty places.</li> <li>d Students say flies spread diseases</li> <li>e Students express if they throw fruit peels in the classroom, they can get accident.</li> <li>2 f Student name the harms due to dirty classroom environment</li> </ol>	<p>10 minutes</p>





**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade I (Continued)**

**Lesson 4: Reasons for dirty classroom environment and its related harms**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a. name the reasons for a dirty classroom environment
- b. describe the related harms due to dirty classroom environment
- c. list the ways for keeping the classroom environment clean

**This lesson also helps to develop the following attitudes:**

**Attitudes:**

- a. became curious about one's own attitudes

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>3 Ways of keeping the classroom environment clean.</p> <ol style="list-style-type: none"> <li>a) putting waste materials into a container</li> <li>b) brooming the floor</li> <li>c) dusting the bench</li> <li>d) keeping hands+feet clean</li> <li>e) not touching the walls or glass</li> <li>f) not eating in the classroom</li> <li>g) sharpening the pencil on a piece of paper</li> </ol>	Not needed	<p>Teacher will ask:            What are the different ways of keeping our classroom environment clean. Finally, the teacher will explain the different ways of keeping the classroom environment clean to the students. Students will repeat.</p>	<p>3 Students name the different ways of keeping the classroom environment clean</p>	10 minutes
<p>4 Our surrounding is more pleasant if we keep it clean</p>	<p>Colored pencils            pictures of children</p>	<p>Teacher distributes the paintings started in the previous lesson and asks students to finish them. If one has finished the pleasant room he can start to paint the unpleasant room or the other way round. In the end of the lesson teacher collects the pictures.</p>	<p>4 Students paint a picture of a room they like or they don't like.</p>	10 minutes

**Note:** In the next class the teacher shall bring one empty tin can (to be used as a flower pot) and some flowers.



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade I**

**Lesson 5: Responsibility to keep the classroom environment clean**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

a. name different ways of keeping the classroom environment clean.

b. mention that they are also responsible to keep the classroom environment clean.

**Skill:**

a. participate in the activities of keeping the classroom environment clean.

This lesson also helps to develop the following attitudes:

**Attitudes:**

a. feel a sense of responsibility in keeping the classroom environment clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1. We should keep our classroom clean and pleasant, because we are the ones who stay in the classroom and we mostly made it dirty. If we act responsibly and improve our habits, we could keep our classroom environment clean and pleasant. For example</p> <p>a) by not throwing the wastes in the classroom</p> <p>b) by using the baskets for wastes</p> <p>c) by cleaning the classroom regularly, brooming and dusting</p> <p>d) by improving our personal habits like: keeping hand and feet clean, not touching the walls, not eating the classroom, not sharpening the pencil carelessly.</p> <p>(Revision)</p>		<p>1 Teacher will ask the students to name different ways of keeping the classroom environment cleaned and pleasant (Revision from the previous class)</p> <p>Teacher will ask the students why they should be the ones who keep the classroom clean</p>	<p>1 a Students describe different ways of keeping the classroom environment clean</p> <p>1.b Students express the need for improving their habits for keeping the classroom environment clean</p> <p>1 c Students name ways to keep the classroom clean and pleasant.</p>	5 minutes
<p>2 We are responsible for keeping our classroom environment clean. For this purpose, we do not need any special group of people or individuals like sweeper or peon etc. They alone can not do this job all the time. We should also help them. Again we should not feel ashamed in keeping our classroom clean because we are the ones who stay in it most of the time and have made it dirty.</p>	<p>0-1Y</p> <p>Brooms, baskets, cloth pieces soaked in water, soap water towel.</p>	<p>2 Teacher will select 5 students and ask them to watch the activities done by their friend. (5 students older ones, to come forward) Teacher will demonstrate how to use brooms, clean the desks with cloth pieces (soaked with water) He will ask other students to watch the activities done by their friends (5 students) Then teacher will ask them to collect paper pieces and other waste materials from the floor and put it in the basket. Similarly, he will ask them to clean some of the desks with wet cloth pieces. Teacher will also work with them and clean his/her table, chairs etc. Finally, he will wash his hands with soap and water and use the towel. Teacher will ask the students to wash their hands</p>	<p>2 a Students express that they are also responsible to keep their classroom environment clean</p> <p>2.b Students participate in cleaning the classroom environment</p> <p>2.c Students observe the activities of cleaning the classroom environment</p> <p>2 d Students wash their hands properly</p>	20 minutes



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade I (continued)**

**Lesson 5: Responsibility to keep the classroom environment clean**

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge:**

a. name different ways of keeping the classroom environment clean.

**Skill.**

b. mention that they are also responsible to keep the classroom environment clean.

a. participate in the activities of keeping the classroom environment clean.

**This lesson also helps to develop the following attitudes.**

**Attitudes:**

a. feel a sense of responsibility in keeping the classroom environment clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>3. Children have to learn from an early age to take the responsibility for keeping their space clean</p>		<p>3 Teacher will name those 5 students (who were involved in activities No. 2) as responsible children. He will explain them that this week they are responsible to keep the classroom environment clean and pleasant.</p> <p>Teacher will ask them to watch if their friends make the classroom dirty. Then, the teacher explains the whole class that for this week, these five children are 'responsible children' for keeping the classroom environment clean. From today do not make the classroom dirty. Improve your bad habits. If somebody makes the classroom dirty, the 'responsible children' will inform me. By rotation everyone of you will be selected to work as responsible children every week."</p>	<p>3 a Students take the responsibility of keeping classroom environment clean.</p> <p>3 b Students express that every one should take the responsibility to keep the classroom clean.</p> <p>3 c Students express the need for improving their bad habits.</p>	<p>5 minutes</p>
<p>4. We can make our classroom pleasant by other ways too, for example.</p> <p>a) by using tin cans or a bottle as flower pots. Placing it in the classroom with flowers</p> <p>b) keeping the chairs, tables, benches etc. at the right places</p> <p>c) hanging children's painting on the wall</p>	<p>Tin, flowers, nails + hammer, pictures prepared by the children.</p>	<p>4 Teacher asks a student to fill the tin or glassbottle with water and put the flowers into it. How else can we make our classroom more pleasant. If time permits pictures can be put on the walls</p>	<p>4 a Children name ways how to make the classroom more pleasant</p> <p>4 b Students participate in decorating</p>	<p>10 minutes</p>

Note \* Teacher should assign other children to be responsible every week



**SUBJECT: HEALTH EDUCATION**

**UNIT 1: PERSONAL HYGIENE**

**Grade 1**

**Lesson 1 Method of hand washing**

**Objectives . At the end of this lesson, students will be able to:**

**Knowledge :** a) explain the use of soap and water to wash the hands  
b) distinguish between clean and dirty hands

**Skills :** a) demonstrate how to wash hands

**This lesson also helps to develop the following attitudes.**

**Attitudes :** a) appreciate clean hands  
b) enjoy washing hands properly

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Though our hands look clean however they may be dirty. Hands are used in working, touching dirt, washing anus, etc so they become dirty.	Chalk dust or dust	1.a Teacher will show his/her two hands, one clean, one dirty and ask them about the differences. The students' responses will be collected and finally he will explain that one is a clean hand and another is a dirty hand.  1 b Let the students observe their hands to know whether or not their hands are clean.	1.a Students will say that one hand is dirty and the other one is clean.  1 b They will distinguish whether their hands are clean or not.	5 minutes
2 a We do not like dirty hands. We all like clean hands.  2 b We should wash our hands using soap and water.	Soap and water	2.a Teacher will ask the students why should they like clean hands  2 b Students will be asked what should be done if hands become dirty.  2.c What should we use to wash our hands? The teacher will show a soap, and a bowl of water and will say that soap and water should be used.	2.a Students say that they like clean hands because they look nice.  2.b They will say that hands should be washed.  2.c They will say that soap and water should be used to wash hands.	5 minutes
3 When we use soap and water to wash our dirty hands, we will see that there will be dirt in the soap and water. After washing hands we feel that hands become clean and nice	Soap, water, towel, bucket, bowl, mug etc.	3.a The teacher will demonstrate hand washing using soap and water. He will also explain the methods while demonstrating. After washing hands, he will show them to the students and ask them to describe what they see  3 b The teacher will select two students who have dirty hands. One will wash his hands so that comparison of dirty and clean hands could be presented. Then students will be asked to distinguish.	3.a The students identify clean hands.  3 b They will say that the washed hand is clean and the other is dirty.	10 minutes
4 While washing hands, care should be taken to clean soap water from the hands	Soap, water, towel, bucket, bowl, mug etc	4 Let the students wash their hands as per their convenient. The teacher will observe their actions and instructions will be given if necessary. Finally, he will say that they should wash their hands when coming to the school.	4. They will practice hand washing under teacher's guidance.	20 minutes

**Note** Activities No 4 should be performed outside the classroom. It does not mean to take students very far if the number of students is high, recess can be used or next class can be used.





**SUBJECT: HEALTH EDUCATION**

**UNIT 1: PERSONAL HYGIENE**

**Grade 1**

**Lesson 2: Rules to be followed in hand washing**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:** a) name rules to be followed in hand washing

**Skills:** a) practice hand washing before eating, after defecation and when hands become dirty

This lesson also helps to develop the following attitudes.

**Attitudes:**  
 a) appreciate clean hands  
 b) realize that hands washed with soap and water look clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 We should appreciate clean hands and we should suggest to wash hands to those who have dirty hands	Chalk, duster and blackboard	1 Teacher will observe the students' hands to see whether or not they are washed. The teacher will praise those students who have clean hands and students who have dirty hands should be suggested to wash them again.	1 Students observe their hands.	10 minutes
2 Preferably soap and water should be used for washing hands		2 The teacher will ask the students what did they learn in the last lesson and what should we use to wash the hands.	2 The students will say that hands should be washed with soap and water.	2 minutes
3 In addition to soap and water we can use husk, ash, rice/maize flour etc. to wash our hands. Soil should not be used to wash our hands because germs are there in the soil. The best thing to use is soap.		3 The teacher will remind that they learnt to wash hands with soap and water. Then he will ask what things can be used to wash hands other than soap. The teacher will write all their responses on the blackboard. Finally, the teacher will emphasize on husk, ash and soap water for hand washing. He will also suggest them not to wash their hands with soil.	3 The students will say that husk, ash, soap water etc can be used to wash their hands. They will say that they should never use soil to wash the hands.	10 minutes
4 We should always wash our hands in the following conditions <ul style="list-style-type: none"> <li>- before eating</li> <li>- after defecation</li> <li>- when hands become dirty</li> </ul>		4 The teacher will ask the students when hands should be washed. Then he will collect the answers.  The children have to repeat.	4 The students will say that hands should be washed before eating, after defecation and when hands become dirty.	10 minutes
5 Hands have to be rinsed well after using soap	Water, soap or husk or ashes	5 If time permits, children who want to wash their hands are asked to come outside the class and wash their hands.	5. Children wash their hands properly.	8 minutes



**SUBJECT: HEALTH EDUCATION****UNIT 1: PERSONAL HYGIENE****Grade 1****Lesson 3: Effects of dirty hands**

**Objectives :** At the end of this lesson, students will be able to:

**Knowledge .**

- a) explain dangers caused by dirty hands
- b) explain the importance of cleaning rules and habits

**Skills :**

- a) help to keep classroom clean by practicing personal hygiene

This lesson also helps to develop the following attitudes.

**Attitudes :**

- a) appreciate clean hands

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. Clean hands are praised by everyone. Therefore, hands should be washed whenever they become dirty. We avoid the risk to become sick.		1. The teacher will observe the students whether or not they have clean hands. Students, who have clean hands, will be praised and dirty ones will be instructed to have clean hands in the next class.	1. Most students have clean hands.	5 minutes
2. If we touch food with our dirty hands the food becomes dirty. When we eat dirty food we also eat the dirt of the hand and can become easily sick.	a piece of biscuit or bread	2. The teacher will take some dust in his hand to make his hand dirty. He/she asks whether the hand is clean or not. Then he/she will take a piece of biscuit or bread with that dirty hand and ask students whether or not he can eat that. Finally, he/she will show some dirt in the biscuit or bread.	2. The students will explain that the teacher's hand is dirty. They will answer that if they eat a biscuit, touched by the teacher they will eat dust, too.	5 minutes
3. If we touch or throw nasal flow, our hands become dirty and when we eat with the hand we also eat the flow. If we do not wash our hands after defecation and eat with the hands we may suffer from the diseases. Therefore, fingers and other things should not be put into the mouth.	Card - 35, flannel board (if available) and piece of bread or biscuit	3. The teacher will show picture No. 35 and place it on the flannel board. Then he will ask the following questions for discussion.  - Are the hands dirty? How do they become dirty? Do we eat dirt if we use these hands to eat the bread or biscuit? What happens if we do not wash our hands after defecation and eat with the same hands.  Finally the teacher will point to the picture No. 35 to explain the students that if we use dirty hands while eating, put fingers and things in the mouth, we may eat dirt.	3. The students say that hands get dirty touching dirty items. If we use dirty hands, we eat the dirt and can become sick.	10 minutes
4. When we touch anything with our dirty hands, it becomes dirty. They add to make our classroom environment dirty.	chalk dust	4. The teacher will let the students touch the chalk dust and let them touch their benches again. Then he will show them how benches are becoming dirty. In this way classes become dirty.	4. The students will explain that if their hands are dirty they may create dirty classroom.	10 minutes
5. If we have dirty hands, we find the following effects  - the risk of becoming sick is very high - hands smell bad - others do not like to touch them - hands feel bad		5. The teacher will ask the students to feel and smell their dirty hands and to observe the hands of others.	5. The students will explain that a dirty hand feels, smells and looks ugly, nobody likes it.	10 minutes

**Note:** The teacher will ask the students who touched the chalk dust to wash their hands.



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

**Grade I**

**Lesson 1: Ways of keeping the classroom clean**

**Objectives:** At the end of this lesson, students will be able to.

**Knowledge:** a) name some of the ways of keeping the classroom clean  
 b) classify waste materials

**Skill :** a) classify waste materials which are present in the classroom  
 b) help in organizing proper waste disposal in the classroom  
 c) separate the wastes in the classroom

This lesson also helps the students to develop the following attitudes.

**Attitudes:** a) enjoy involving actively in solving the waste problems in the classroom

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. Waste thrown away improperly harms us in different ways e.g. unpleasant environment, bad smells + bad views and causing accidents	1. Black board and chalk	1. Teacher writes the topic "Harms of improper waste-disposal" onto the blackboard and lets the students discuss on the topic and identify the various harms. The teacher writes the points onto the blackboard. The teacher reads the list. Children repeat	1. Children name the harms of improper waste-disposal	10 minutes
2. Students can clean the classroom by the following ways e.g. a. sweep regularly b. collect waste materials: paper, remaining parts of food stuffs etc. and putting them in the container.	2. No material needed	2. The teacher asks the students how they clean their classroom and discusses the ways of keeping the classroom clean. If needed the teacher will help them	2. Children participate in the discussion and name the different ways of keeping the classroom clean	8 minutes
3. There are different types of leftovers:  Green labeled for composting everything that comes from the earth, like peels of fruits vegetables and food leftover, which transforms back to the earth  Red labeled for items which can be reused in the classroom  Yellow labeled for the container The rest is all inorganic material Some can be reused/recycled and some can be used for land filling	3. Black board and chalk.	3. Teacher asks the children to name waste materials which he writes onto the blackboard in three columns labeled with Green/Red/and Yellow colours. Teacher adds some material if necessary. She/he reads the the green labeled list and asks where they come from; he writes 'for compost'. On top of the red labeled column he writes 'for use' and on top of the yellow labeled column he writes 'for the container'. He asks where these materials came from. He adds that we discuss about them in one of the next lessons	3. Students list the different waste materials separately under the heading or as written in the various colours labeled columns - for composting - for reusing in the classroom - for the containers	12 minutes
4. See above "Subject for Teaching" No 3.	4. Different waste materials like banana peel, paper, plastic etc	4. The teacher puts the waste (see subject matter 3) in front of class and invites children to classify the items into three groups.	4. Children separate the waste materials into three groups properly.	10 minutes

**Homework:** The students are asked to bring leftovers from their home. The teacher brings leftovers of the three categories himself/herself

**Note.** The teacher should collect money to buy 3 small waste baskets which will be needed in further lessons. If this is not possible, the teacher has to bring 3



**SUBJECT : HEALTH EDUCATION**

**UNIT 2 : ENVIRONMENTAL SANITATION**

**Sub-Unit 1 : Solid Waste**

**Grade I**

**Lesson 2** Classification of waste materials - composting

**Objectives** At the end of this lesson, students will be able to

**Knowledge** a) explain different classification of waste-materials

**Skills** a) separate the waste materials in the classroom  
b) keep classroom free of solid waste  
c) participate in making a compost pile at the school

This lesson also helps the students to develop the following attitudes

**Attitudes** a) enjoy involving actively in solving the solid waste problems in the classroom  
b) become curious about how to produce compost

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 There are three types of waste List "What to do with leftovers"</p> <p>green for composting    red for recycling    yellow for rest of the materials which can be reused/ recycled or not.</p>	<p>Blackboard and chalk</p>	<p>1 The teacher writes list of the waste materials onto the blackboard with three different categories, identified by three different colours, with the help of students</p>	<p>1 Students classify the waste materials properly</p>	<p>7 minutes</p>
<p>2 We are responsible for our own waste and have to cooperate in keeping our environment clean</p>	<p>Not needed</p>	<p>2 The teacher asks the students the question like who are responsible for the management of waste in the classroom. The she tells them we are responsible for the management of our waste in the classroom.</p>	<p>2 Students describe that they are also responsible to produce waste. Therefore, they should cooperate in keeping the class- room clean</p>	<p>5 minutes</p>
<p>3 Organic leftovers can be used for composting. Paper can be recycled and remaining wastes can be or can't be reused.</p>	<p>1 basket with a green mark, 1 basket with a red mark, 1 basket with a yellow mark</p>	<p>3 The teacher demonstrates the three coloured baskets and relates them to the three categories of waste. He then invites children to put the items brought by them and by the teacher into the corresponding basket. Always before a child throws the items into the basket, he explains why? The content of the red basket should be collected, the contents of the yellow basket should be emptied in the container * (See below)</p>	<p>3. Children put the different waste objects onto the right basket.</p>	<p>15 minutes</p>
<p>4 Organic matter should be piled up and covered with some dry leaves, grass or soil</p> <p>The transformation of organic matter into compost needs heat which is being produced in the process of decomposition. That is why we have to cover the pile when it is cold in the rainy season. It should be covered by plastics.</p>	<p>A mat, if necessary a compost container, if raining a plastic</p>	<p>4 The teacher invites children to take the green basket and follow him into the courtyard. They should put the content of the basket onto a chosen place or into a compost box. They cover it with an old mat, in the rainy season also with some plastic. He invites the children to remember what they put onto the pile. He tells them that after one week they will see what has happened to the leftovers. They wash their hands afterwards * (See below)</p>	<p>4 Students participate in the procedure of making compost and they wash their hands properly after their work</p>	<p>13 minutes</p>





**SUBJECT : HEALTH**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 1 : Solid Waste**

## Grade I

Lesson 3 Reusing the leftovers

Objectives At the end of this lesson, students will be able to

Knowledge a) name the different ways of reusing leftovers directly or indirectly  
 b) name the value of waste objects

Skills a) help in organizing proper waste disposal in the classroom  
 b) keep the classroom free of solid waste  
 c) classify waste materials in the classroom

This lesson also helps the students to develop the following attitudes.

Attitudes a) enjoy involving actively in solving the solid waste problems in the classroom  
 b) become curious about the reasons and ways how to separate leftovers

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Being responsible for our leftovers and cooperating in managing them is the basis for a clean environment.	Not needed	1 The teacher asks some students what people do for the management of waste materials, how you can clean the classroom, if only one individual can keep the classroom clean? Etc He/she will help them if necessary to complete the answers	1 Students explain what they do in order to keep the classroom clean	10 minutes
2. The yellow containers contain lots of materials which can be reused, recycled and used for composting	Not needed	2 Teacher asks what waste materials are stored in the yellow container For each type of material he asks: Can somebody still use some of the leftover material, in order to reduce the amount of waste?	2 Students explain the importance of separating waste materials in order to reduce and reuse them	20 minutes
3 Most of the leftovers still have some value We can get money from the leftovers too Scavengers collect some waste like glass, paper, tins, plastic.	No material needed	3 Teacher asks children who could be interested in the collection of some leftovers? Children should tell their experiences e.g their observations of scavengers collecting the waste Teacher should help if necessary	3 Students name the people who are interested in the leftovers of our homes	5 minutes
4. Scavengers earn money selling the leftovers to a factory which they recycles them into new tins, new plastic items The organic matter is used for composting	No material needed	4 Teacher asks why scavengers are interested in certain leftovers, and what is being done with these leftovers? The teacher will help, if necessary, to identify the proper answers	4 1 Students explain what the scavengers do with the leftovers 4 2 Students name the leftovers which can be recycled in the factory or used for composting	5 minutes



**SUBJECT:** HEALTH EDUCATION  
**UNIT 2:** ENVIRONMENTAL SANITATION  
**Sub-Unit 1:** Solid Waste

Grade I

Lesson 4: Compost production

Objectives: At the end of this lesson, students will be able to.

Knowledge: a) explain that the transformation process of organic waste-piles into compost needs air

Skills: a) follow up on the process of composting

This lesson also helps the students to develop the following attitudes.

Attitudes: a) enjoy involving actively in solving the waste problems in the classroom  
 b) be curious about the functions of the solid waste management and resource mobilization center  
 c) appreciate the process of producing compost  
 d) appreciate the reuse of waste materials

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 To be responsible for our leftovers and to cooperate in keeping the classroom clean is the basis for maintaining a pleasant environment.	No materials needed.	1 The teacher asks the students the following questions Who cleans your classroom? What should we do to make the classroom clean?	1 Students explain that they are responsible themselves for keeping the classroom clean and they have to do it by cooperating each other.	10 minutes
2. The transformation process of organic waste into compost starts in a few days.	- compost-pile - mat to cover waste pile - plastic sheet	2. Teacher invites children to come down to the courtyard Through question and answer the teacher will explain that the organic waste is in the process of transformation (changing into earth).	2. Students observe the compost-pile and explain that the leftovers are being transformed in the pile	10 minutes
Optional. Consult Section 3 of "Background Information" portion of the Manual.				
3 The transformation process needs oxygen (air) that is why the compost pile has to be turned several times The organic leftovers will turn into soil during this process.	Shovel (for turning the compost-pile)	3 Teacher turns the compost pile and explains why. Children assist. They wash their hands afterwards	3 a Students explain that the transformation process needs oxygen (air)  3 b Students assist in turning the pile properly and then wash hands	20 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

Grade I

Lesson 6 Preparation to recycle paper

Objectives: At the end of this lesson, students will be able to:

- Knowledge: a) describe the ways of reusing waste paper
- Skills: a) organize proper waste disposal activities in the classroom  
 b) prepare waste paper for recycling

This lesson also helps the students to develop the following attitudes.

- Attitudes: a) enjoy involving actively in solving the waste problems in the classroom  
 b) curious about paper recycling

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 "Harms from improper waste disposal" e.g unpleasant environment, bad smells, accidents, bad effect on our health etc	1 Blackboard and chalk	1 The teacher writes harms of waste onto the blackboard. He reads them to the children, they repeat.	1 Students assist the teacher in recalling the harms of improper waste disposal	5 minutes
2 We have to feel and act responsibly - to keep our class environment clean - to produce a good fertilizer - to reuse valuable leftovers	2 No needed	2 The teacher asks some students in which way they clean the classroom.	2 Students explain their responsibilities to keep the classroom clean	5 minutes
3 Used paper does not have to be thrown away. The old paper can be used as wrapping paper or as little bags etc. New paper can be prepared by recycling the old paper	Blackboard + chalk	3 Teacher writes "used paper" onto the blackboard and says: let us see what should be done with it. a) reuse it in some ways b) recycle it;	3 Students explain that used paper should not be thrown away. If saved it can be used again or recycled	5 minutes
4 a White paper is made of timber finely ground and glued together  b In order to make new paper we need a lot of raw material lots of water lots of wood and labor. We can make new paper again using much less expenses and labor	4 to 6 pieces of paper	4 Teacher asks if somebody knows what paper is made of. He/she distributes some papers and asks students to hold it against the light. He/she asks what they see. Teacher helps if needed. He/she explains what paper is made of and that we can grind the used paper again and make new paper. They are asked to look for used paper and collect it.	4.1 Students say that they see light and dark parts in the paper (the fibers of the wood) 4.2 Students name materials which are needed for making paper. 4.3 Students explain that they can make new paper out of used paper with little expense and labor	25 minutes
5 Home work Bring used paper				



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

**Grade I**

**Lesson 6: Responsibility of waste handling in the classroom**

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge.** a) describe personal solutions for solid waste handling in the classroom based on one's own sense of responsibility  
 b) describe the procedures of composting

**Skills:** a) keep the classroom free of solid waste (particularly the waste papers)  
 b) participate in the preparation for paper making

**This lesson also helps the students to develop the following attitudes.**

**Attitudes:** a) enjoy involving actively in solving the waste problems in the classroom  
 b) enjoy making compost in the school  
 c) become curious about how to make paper

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Feeling and acting responsible for our environment, helps to keep it clean. Keeping the classroom clean needs  a. disposing your waste in the basket  b. collecting waste and dispose it  c. sweeping	Board and chalk	1 Some students are asked to answer the question like what did you do to keep our classroom clean	1 Students describe their behavior dealing with leftovers and name ways of keeping the classroom clean	7 minutes
2 The compost pile has to be turned several times, at least every 7 days. Inside the pile leftovers are being transformed into earth	Shovel (for turning the compost) soap, water, towel	2 Teacher invites the children to come down to the compost plant. They look at it.  Teacher turns the compost pile children assist and others describe what they are doing. The teacher will help them if necessary	2 1 Students describe the process of composting and the need for turning it every seven days  2 2 They wash their hands properly	18 minutes
3 As a preparation for making paper, the used paper has to be torn into tiny pieces this way it dissolves more easily	- Sheets of used paper - basins with water	3 Teacher gives pieces of paper to the children or asks to take the pieces of paper brought by them and tear them into tiny pieces. He demonstrates it. One day before the following lesson the teacher puts the pieces into water	3 Students tear paper into tiny pieces.	15 minutes





**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

**Grade I**

**Lesson 7: Paper recycling practice**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:** a) name the method of recycling used papers

**Skills:** a) recycle the paper

This lesson also helps the students to develop the following attitudes.

**Attitudes:** a) enjoy involving actively in solving the waste problems in the classroom  
 b) enjoy recycling the paper

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outco	E. Estimated Time
1. Used paper torn up dissolved in water, with a screen another piece of paper can be produced (see detailed instruction on page 89-92 of the book - "My World")	- 2-3 basins - 3-4 paper making screen - newspaper - mixture of paper - Book P 89-92	1 Teacher in front of the students puts the mixture into the basin and adds water as required. She asks students to grind it with their hands or with pestle or mortar	1. Students list out the different materials needed for paper recycling	15 minutes
2. See instruction on page 89-92 of the book - "My World"	- some cloths - jar with water if possible. - pestle and mortar, or bottle	2. The teacher demonstrates how to recycle a paper, he/she sinks the screen into the water slowly, asks them to wipe out the water underneath with the help of a cloth. Teacher goes through the whole procedure of making paper with the help of a student.	2. Students assist the teacher in making paper.	5 minutes
3 See instruction page 89 - 92 of the book "My World"	3 See above	3. Teacher asks children (2 for each frame) to come in front or outside in the courtyard and practice paper recycling Others form a circle around them	3. Some students recycle paper and other students describe the procedure of paper recycling.	20 minutes

Note. If we want to make coloured paper, just add the desired colour in the paste



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-unit 2: Excreta disposal**

**Grade 1**

**Lesson 1: Proper/Improper defecation places at school.**

**Objectives .** At the end of this lesson, students will be able to:

**Knowledge :**

- a) name the proper defecation places at school.
- b) name the harms due to defecation at improper places in the school
- c) name the rules of proper defecation at school

This lesson also helps the students to develop the following attitudes.

**Attitude :**

- a) appreciate the proper places and rules of proper defecation in the school

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. If there are latrines in the school and if they are in good condition we should always use latrine for defecation purpose	Card 48	1. Teacher will ask the students 'Where do you normally defecate at the school?' He should explain them that as far as possible we have to use latrines at the school for defecation purposes.	1 a Students name the defecation places at school 1 b Students express that they use a latrine for defecation purposes if there is one.	5 minutes
2. If we defecate carelessly around the schools there will be many harms for us, such as, a) it attracts flies; excreta stick on the flies' legs, while they sit on top of the excreta. If the fly sits on other places around us or on top of food, which we touch or eat, the excreta with all the parasites can get into our body and make us sick b) our school environment becomes dirty c) disease will spread d) it gives bad smells.	Chalk, duster, board, cards No 38, 33, flannel board (if available)	2. Teacher will show the picture No 38 to the children going through the rows and then stick it on the flannel board, if there is one, and ask the students, whether the boys shown in the picture are defecating at the proper places or not. Teacher will also ask them, whether it is good or not to do so. Then teacher will ask the students about the harms due to defecation at the improper places. Teacher will collect the responses and, if necessary, he also adds his points. While talking about the harms of defecation at the improper places, the teacher will show the picture 33 then stick it on the flannel board if there is one and explain how the flies, spread diseases among us	2 a Students say they should not defecate at improper places in the school. 2 b Students name the harms due to defecation at the improper places 2.c Students describe how the flies spread diseases them	15 minutes
3. - Using a latrine avoids: a) bad smells b) polluting the environment c) hygienic risks  - Preferably a latrine should be used, if there is one	Not needed	3 Teacher will ask the student 'do you go to a latrine for defecation?' Teacher asks why they should use the latrines if there is one. If necessary the teacher explains	3 a Students say they are using or will use latrine for defecation. 3 b Students say that they should use a latrine if there is one	10 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-unit 2: Excreta disposal**

Grade I (continued)

Lesson 1: Proper/Improper defecation places at school.

Objectives : At the end of this lesson, students will be able to:

Knowledge :                   a) name the proper defecation places at school.  
                                       b) name the harms due to defecation at improper places in the school.  
                                       c) name the rules of proper defecation at school.

This lesson also helps the students to develop the following attitudes.

Attitude :                   a) appreciate the proper places and rules of proper defecation in the school

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>4 We need to follow some of the rules while using the school latrine for defecation purpose, such as:</p> <p>a) We should carry enough water, if there is no provision of it in the latrine.</p> <p>b) We should flush the excreta by pouring enough water.</p> <p>c) We should wash our hands with soap and water (if soap is not available, we should wash the hands properly with enough water)</p> <p>d) We should keep the latrine clean because others also have to use it.</p> <p>e) We should not touch the water containers, walls and the parts of our body before washing the hands</p> <p>f) We should defecate right in the hole of the pan</p> <p>g) Wash away the excreta after defecation</p> <p>h) Pour water at the pan after unnaton and before defecation</p> <p>i) Not to put different materials like stone or wood pieces, plastic item etc., in the pan</p>	<p>Cards No 48,39</p>	<p>4 Teacher asks to recall the rules for proper use of school latrines he explains the rules if necessary showing the pictures</p>	<p>4. Students describe different rules which needs to be followed while using latrines in the school</p>	<p>10 minutes</p>

Note. Teacher should ask the helper who is responsible for cleaning the toilet to take extra care



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-unit 2: Excreta disposal**

**Grade I**

**Lesson 2: Defecation in the open**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) describe the different criteria which should be considered while defecating in the open
- b) name some of the rules which need to be followed after defecating in the open.

**Skills:**

- a) demonstrate proper ways of using latrine by acting.
- b) demonstrate the rules to be followed after defecating in open by acting.

This lesson will also help the students to develop following attitudes.

**Attitude:**

- a) be willing to use a latrine at school and appreciate the rules which should be followed while defecating in the open.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 If there is no latrine in the school or if it is not in the good condition we need to defecate in the open. We should consider some of the criteria while selecting the place for open defecation, such as</p> <ol style="list-style-type: none"> <li>a) We should not defecate at the places where people are walking (roads etc.)</li> <li>b) We should not defecate at the places near water sources.</li> <li>c) We should not defecate at the place which is damp or where the sun does not come. In damp places the larvae which comes from the eggs of the worms and which is in the excreta live for a long period of time</li> <li>d) We should not defecate at the places where animals come for grazing</li> </ol>	<p>Not needed</p>	<p>1 Teacher will ask the students 'What are the things to be considered if we need to defecate in the open. 'where should we not defecate'. After students responses teacher explains the different criteria which need to be considered while selecting open places for defecation</p>	<ol style="list-style-type: none"> <li>1 a Students describe the open places where they should not defecate.</li> <li>1 b Students explain how they select an open place for defecation, naming different criteria</li> </ol>	<p>10 minutes</p>
<p>2 Even after defecation in the open, we have to follow some rules, such as</p> <ol style="list-style-type: none"> <li>a) We should carry enough water</li> <li>b) We should cover the excreta with soil properly. If the soil is too hard leaves should be used</li> <li>c) We should wash the anus properly</li> <li>d) We should wash our hands most preferably with soap and water (if soap is not available with enough water properly)</li> </ol>	<p>Card No 47 Chalk, bowl, jug (with water) a bag full of soil, a paper, soap, towel)</p>	<p>2 Teacher will ask the students 'What are the rules we need to follow after open defecation. Finally, teacher will explain each of the rules, showing the picture 47</p> <p>Teacher will invite one student (one of the older one) to come forward and ask him to act as if he is defecating in the open. Tell him to act without putting off the clothes. Teacher will ask other students to observe carefully. Teacher will also observe whether the students act correctly or not covering the excreta and washing hands properly. Finally, teacher will tell the students to give comment on their friend's acting, whether he had followed all the rules or not. Teacher will also give his comments. Teacher will ask other students to act out again. Students are asked to clean up</p>	<ol style="list-style-type: none"> <li>2 a Students name the rules which need to be followed while defecating in the open</li> <li>2 b Students demonstrate the rules which need to be followed while defecating in the open by acting</li> </ol>	<p>25 minutes</p>
<p>3 If we follow the above mentioned rules, we will have the following advantages</p> <ol style="list-style-type: none"> <li>a) There won't be any bad smells</li> <li>b) Places won't look dirty</li> <li>c) Flies won't multiply so much.</li> <li>d) Diseases won't spread</li> </ol>	<p>Chalk, duster, board</p>	<p>3 Teacher will ask the students about the advantages of following the rules while defecating in the open. After responses, teacher will explain each of the advantages to the students. He will also write the advantages on the board and ask the students to repeat them.</p>	<p>3. Students name the advantages of following the proper rules while defecating in the open.</p>	<p>5 minutes</p>





**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-unit 3: Water**

**Grade I**

**Lesson 1: Importance of clean and safe drinking water**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge :**

- a) explain how water is contaminated in the school
- b) list methods of keeping drinking water clean

**Skills :**

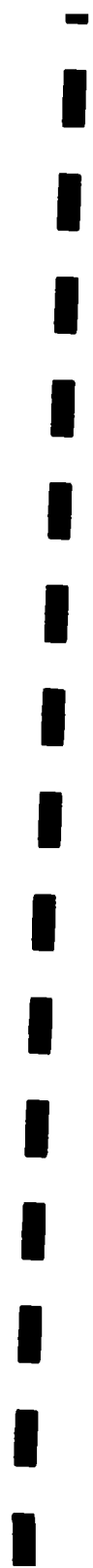
- a) use drinking water properly

**This lesson also helps to develop the following attitudes.**

**Attitude :**

- a) realize the need of using water properly

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Contaminated water should not be drunk. If we drink contaminated water we may suffer from different communicable diseases.	Two glasses, water and dust (soil)	1 The teacher will take two glasses of water and put some dust in one glass so that dirty water can be easily recognized. Then he will ask students which glass they prefer to drink. At last he will explain that contaminated water should not be used for drinking.	1 Students will respond that the contaminated water should not be drunk, only clean water should be drunk.	8 minutes
2 Water can be contaminated at school in the following ways: - mixing dust, dirt in the water - not covering the water pot - unsafe (dirty) filling pot - stored in a dirty Jaf - touched by dirty hands & fingers - throwing waste near the water source - defecate near the water source		2 a Students will be asked how water becomes contaminated in school.	2.a Students will say that water becomes contaminated if dirt and dust can get into the water.	12 minutes
	Two glasses, water and dust (soil)	2 b The teacher will let a student mix some dust into a clean glass of water so that the students will know how water becomes contaminated in the school.	2 b Students will observe how water becomes contaminated.	
	See above	2 c The teacher will show the dirty glass and ask what are the causes of water contamination. Then he will collect the responses of the students and he will explain the causes of water contamination.	2 c The students will explain the causes of water contamination.	
3 Even water which seems to be clean, can contain small living creatures which we don't see. They can make us sick. Preferably water should be boiled or a medicine should be put in that way the little creatures die, or at least the water should be filtered.	Book page 63 Glass of clean water	3 Teacher holds up the glass with the clean water and explains that we still might get sick from this water. He asks the students to open the book "My World" on page 63. He describes that through a microscope we can see what we can't see with our naked eyes that is why we see the creatures in a drop of water. Teacher explains what should be done with apparently clean water.	3 Students explain how to make drinking water safe.	10 minutes
4 Drinking water should be preserved in the following ways: - water should be covered water should be stored in a clean jar/pot clean mug should be used to serve water - water should not be touched with dirty hands	Glass of clean water and a cover	4 The teacher will ask the students how to preserve drinking water safely. He puts the cover on the glass to protect the water from dust.	4 Students will explain ways of preserving water.	10 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-unit 3: Water**

**Grade I**

**Lesson 2. Uses of water in the school**

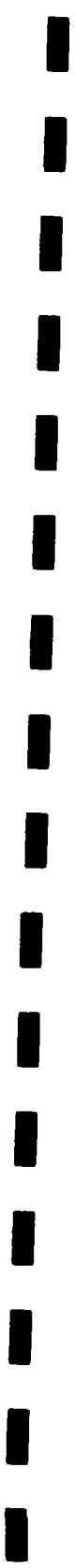
**Objectives** At the end of this lesson, students will be able to:

- Knowledge .**
- a) name different uses of water in the school
  - b) mentioned that they should use only clean water for drinking purposes
  - c) explain that water should be used consciously and economically

**This lesson also helps to develop the following attitudes.**

- Attitude :**
- a) be aware of proper use of water in the school

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 There are many uses of water in the school such as a) For drinking purposes b) For the maintenance of personal hygiene, like - washing hands before and after eating something - washing hands after defecation	Not needed	1 Teacher will ask the students to name different uses of water in the school. After student's responses teacher will also explain each of the uses clearly	1 Students name the different uses of water in the school	10 minutes
2 Drinking water can be preserved in the following ways: - water should be covered - water should be stored in a clean jar/pot - clean mug should be used to serve water - dirty hands should not be used	A clean water pot, cover, a clean mug	2 The teacher will ask the students how water is preserved. He will also demonstrate how water can be preserved by bringing the children to the place where water is stored or bringing the water pot and mug to the classroom	2 The students will observe and explain the ways of preserving water	15 minutes
3 There are so many uses of water, so we need plenty of water every day. And we have many people in the valley. Each one needs a lot of water. But there is a limited amount of water. We have to be careful how to use water: not to contaminate it by throwing garbage into the water or not to defecate near the pond and not to use it carelessly.	Book "My World" page 64	3.a Teacher asks the children to open the book on page 64 and asks: "We want to keep our water clean, which activities should not be done at the pond."  3 b Teacher explains to use water economically from the tap or well as far as possible. So there is enough for everyone.	3 a Students identify contaminating activities  3 b Students say that they should use water economically.	15 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

Grade I

Lesson 1: Introduction to communicable diseases

Objectives: At the end of this lesson, students will be able to:

Knowledge :

- a) explain that feeling strong and active means to be in good health
- b) explain that feeling weak and having pain means to be in poor health
- c) explain how communicable disease is spread

This lesson also helps to develop the following attitudes.

Attitude :

- a) appreciate good health
- b) appreciate clean body and clothes

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 A person, who is free from diseases looks strong and active. On the other hand a person, who is affected from communicable disease, looks weak and gets pain.	Chalk, duster and blackboard	1 Students will be asked whether they have ever seen an ill person. The teacher will also ask the characteristics of a healthy person and person having a poor health. After collecting ideas/responses from the students, he will conclude that a person who seems strong and active, is a healthy one and a person, who looks weak and having pain, is in poor health.	1 Students explain the characteristics of good and poor health.	15 minutes
2 Being healthy we feel more active and stronger.		2. Students will be asked whether they have ever suffered from a disease or not and let them tell their symptoms. Then they will be asked to point to a strong student in the class who looks strong. Finally the teacher will ask if that student looks healthy or sick. The teacher will summarize their responses.	2.a Students explain the symptoms of diseases and point out an active and strong friend. They also give the reason why the student is strong and active. 2 b They realize that being healthy implies that we are active and strong.	15 minutes
3 Most communicable diseases can be spread through contaminated water, food and through dirty hands and dirty habits. Therefore, we should try to be clean and use clean food and water.	Chalk, duster and blackboard	3 The teacher will ask the students what will happen if we eat things with dirty hands, dirty food. Finally, he/she will act out how dirty food and dirty hands can spread the disease from one person to another.	3 Students explain that communicable disease can be spread through dirty habits.	10 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

Grade I

Lesson 2: Lice Infestation

Objectives : At the end of this lesson, students will be able to:

Knowledge .

- a) explain that lice are small animals commonly found in the hair of the people, who don't wash regularly or live in dirty surroundings
- b) explain that itching of the head is the most common symptom of lice infestation
- c) explain the prevention and control of lice infestations

Skills :

- a) demonstrate the use of a comb

This lesson also helps to develop the following attitudes.

Attitude :

- a) praise the students with clean clothes, clean body and a clean head

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Lice are small animals found on our body and on our head	A louse, chalk, duster and blackboard	1 The teacher will ask the students about lice (do they see any or do they have any themselves) Responses will be collected to ensure that everyone knows what a louse is. Finally he will show a louse or draw a picture of a louse to explain them what a louse is.	1 Students say that lice are small animals found on our body and on our head	10 minutes
2. The symptoms of lice infestation is mainly itching. It also causes a dangerous disease called typhus. Fever, weakness and blue spots on the body are symptoms of the typhus	Chalk, duster and blackboard	2. Let the students explain what they would do if they had lice. The teacher will then interpret their responses	2 Students say that lice cause itching on both the body and the head	5 minutes
3 Lice can be found on many children. Lice can be transmitted through the clothes, comb and through direct contact.	Dirty clothes and a dirty comb	3 The teacher will ask the students where lice can be found. The students will then be shown dirty clothes and a comb to demonstrate how lice can be transmitted.	3 Students explain that lice can be transmitted through clothes, comb and through direct contact.	5 minutes
4 The best way to get rid of lice is to follow good personal hygiene rules. They are as follows: hair should be washed frequently and combed, clothes should be clean	A clean comb and brush (comb should be cleaned after use)	4 Let the students explain how they keep their clothes and hair clean. Take some students and demonstrate the use of a comb, praise some of the clean students.	4 The students explain that their clothes and hair should be kept clean. Some of the students demonstrate the use of a comb.	10 minutes
5 If we have lice we should apply a solution of kerosene and oil or some medicine against lice infestation in the evening. In the morning we should wash our hair with soap and comb it with a fine toothed comb	A fine toothed comb, kerosene, oil and a plate.	5 The teacher will take equal amount of kerosene and oil to make a solution. He will demonstrate how to make solution then he will instruct students how to use it.	5 They observe how the solution is prepared and explain the methods of using solutions	10 minutes





**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

**Grade I**

**Lesson 3. Preventive measures of communicable diseases**

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge :** a) describe the causes of transmitting communicable diseases  
 b) explain the preventive measures of communicable diseases

**Skills :** a) practice following preventive measures for some communicable diseases  
 - wash their hands and comb their hair  
 - cover nose and mouth  
 - avoid spitting

This lesson also helps to develop the following attitudes.

**Attitude :** a) accept the importance of cleanliness in preventing communicable diseases

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. We learnt about some of the communicable diseases which are transmitted through in-hygienic behaviors as well as direct contact with persons having such diseases	Chalk, duster and blackboard	1 Teacher will ask students that what they learnt in previous lessons. Then they will be asked how they can become sick. The teacher will write all the responses on the blackboard to conclude the ideas.	1. Students say transmission of diseases is mainly due to a lack of cleanliness.	5 minutes
2. No germs can reach our body without any means. The means can be our dirty hands or dirty surrounding in which people spit as well as direct contact with people who don't cover their mouth and nose while coughing	Card 35	2 Let the students observe the picture. The teacher will ask the means of transmitting communicable diseases. Teacher will help if necessary	2 Students say that communicable diseases will be transmitted through: a) dirty hands b) spitting c) not covering nose + mouth while coughing d) dirty surrounding	10 minutes
3. - Cleaning hands - Avoid to spit - Covering nose and mouth while coughing - Proper waste disposal are important measures to prevent many communicable diseases		3. Teacher will ask students what should be done to prevent communicable diseases. Finally, he will explain the measures to prevent many communicable diseases.	3. Students will say that cleanliness is the main measure to prevent many communicable diseases	10 minutes
4. See No 3 Practicing these preventive measures is important for children	Mug, water and soap	4 Teacher asks the students to demonstrate in role play covering the mouth and nose while coughing and cleaning hands.	4 Students will practice preventive measures for communicable diseases.	15 minutes



### 3.4 LESSON PLANS GRADE II

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#### HEALTH EDUCATION

##### Unit 1: Personal Hygiene

- Lesson 1: Effects of dirty hands, feet and face
- Lesson 2: Methods of cleaning hands, feet and face
- Lesson 3: General rules for personal hygiene

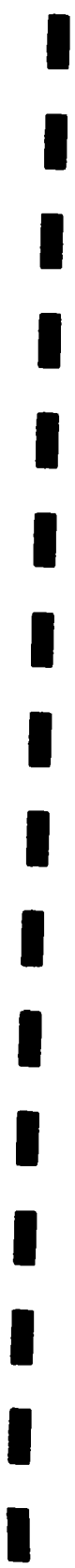
##### Unit 2: Environmental Sanitation

###### *Sub-Unit 1: Solid waste*

- Lesson 1: Organic/inorganic waste
- Lesson 2: Organic/inorganic waste
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- Lesson 1: Proper places of defecation at home
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*Sub-Unit 3: Water*

Lesson 1: Uses of water

Lesson 2: Methods of preserving water

**Unit 4: Communicable diseases**

Lesson 1. Introduction to communicable diseases

Lesson 2: Round worm common cold

Lesson 3. Diarrhoea and dysentery



**SUBJECT : ENVIRONMENTAL EDUCATION**

**UNIT 4 : ENVIRONMENTAL CONTAMINATION**

Grade II

Lesson 1 Disadvantages of dirty environment in the homes

Objectives At the end of this lesson, students will be able to

Knowledge

- a) name the disadvantage of throwing away solid waste at home improperly
- b) say that in order to be physically healthy and mentally sound, the household waste should be properly managed

This lesson also helps the students to develop the following attitudes.

Attitudes

- a) be aware of the harm involved when throwing away solid waste at home improperly
- b) realize that in order to be physically healthy and mentally sound, the solid waste at home should be properly managed

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Improperly throwing away solid waste at home makes the environment dirty. It makes the floor slippery, accident-prone, causes bad smells and different kind of diseases. It is also very unpleasant. Dirty places attract more rats and insects. (See manual, guide to the book, page 6/7)	The book, "My World", Page 15-21, "My Beautiful City"	1 The teacher divides the class into groups according to the number of books and students and then distributes the books. Let each of the student read the dialogue from each page of the story "My Beautiful City". Let one student read and the rest of them can listen. After this let the students discuss the story among themselves and ask questions. For the discussion and question period the teacher asks the following: Why did Krishna fall down on the way? After Krishna fell down, what did they think and what did he talk about with the boys walking with him? What did all the boys decide? Etc. After discussing those questions, the teacher should again ask and discuss the following with the students: Can we fall down inside our home as Krishna did? Why? Besides falling down, can anything else happen? Why could all that happen? Etc. etc.	1 a Students read the story and discuss what effects improper waste-disposal has.  1 b Students discuss the consequences of throwing away solid waste at home not properly	25 minutes
2. Improperly throwing away solid waste makes the home environment dirty	a) Cards of a dirty and a clean courtyard in the back pocket, the book "My World", page 4+5  b) Colouring pencils	2 The teacher should ask some groups of students to colour-in the clean court-yards and some other groups for colour in the dirty courtyard. While doing this, the teacher should ask the students to work in the same groups as before and give each of them a chance of colouring-in. Teacher should assist in applying appropriate colours.	2.a Students should select the appropriate colours for a clean and a dirty courtyard  2.b Student use clear bright colours for a clean courtyard  2.c Students use dull grayish colours for a dirty courtyard	10 minutes
3 If we do not manage well our household waste or if we do not use the articles at home properly, we will be physically as well as mentally unhealthy	Pictures of clean and dirty courtyards coloured-in by the teacher	3 The teacher asks the students to stop colouring-in, he/she holds up one clean courtyard and one dirty courtyard as an example and asks the students to compare the pictures. When the pictures have been compared, the teacher asks the following question: Which courtyard do you like and why? What happens if solid waste is thrown away improperly? Why? In order to make us (our body) and our mind happy what should we do with the solid waste?	3 a Students name the different harmful effects caused by the improper disposal waste  3 b Students name the advantages of proper waste disposal	5 minutes
4 Homework. Complete colouring the two courtyards + bring some remains of vegetable (students+ teachers)				





**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade II**

**Lesson 2: Types of Solid Waste**

**Objectives:** At the end of this lesson, students will be able to.

**Knowledge:** a) name the different types of solid waste which are produced at home and thrown away as useless items.

This lesson also helps the students to develop following attitudes.

**Attitudes:** a) be aware of things in our home which are considered useless and therefore turn into solid waste.  
 b) be aware that all the things which are thrown away as solid waste at home are really useless

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Every day we eat something everybody does not eat the same all the time, they eat different kind of food	Blackboard, chalk, duster etc.	1 The teacher explains to the students that all of us eat many kinds of food items everyday. The teacher asks each of the students in turn what vegetable or curries they took today and writes on the blackboard the names of the vegetables or curries mentioned by the students. The teacher also tells the name of curry he/she took and writes it on the blackboard.	1 Students name different food items	5 minutes
2 We consider the remains of the refined vegetables, peels or skins of fruits, husks of rice etc as solid waste and useless. They can be used for feeding animals or for producing compost.	The remains of vegetables	2 The teacher asks the students what they do before they cook vegetables in their home. When the teacher gets the answer that they first clean vegetables, he/she asks them what they do with the remains of the cleaned vegetables. Then he/she will show some remains of the vegetables and peels which are brought from home. Finally he asks them what can be done with them and collects their answers.	2 a Students name the remains which are left after preparing vegetable or fruits for eating. 2 b Students explain what should be done with food leftovers	10 minutes
3 The household things which we consider solid waste or useless, are thrown away. They consist of papers, pieces of clothes, bottles, plastics, tins, leaves, glass, straw etc	Blackboard, chalk, duster, exercise books, pens etc for students	3 We throw away the remains after cleaning vegetables or fruit and consider them as solid waste, they are apparently useless for us. Ask students, what things they throw away in their home? After one or two students answer the question, the teacher writes them on the blackboard, then she/he lets all students write the names of those things which are considered useless or solid waste at home, in their exercise books. When all the students finish their writing, the teacher makes them exchange their exercise books between two students. Let each of them read the names from his/her friends' exercise book and the teacher writes them on the blackboard.	3 Students write down different types of solid waste which is produced at home.	15 minutes
4 See above No 3	Chalk, duster, blackboard, exercise book	4 After writing all the names mentioned by each student on the blackboard, the teacher asks the students if there is anything more. If so, he/she writes it on the blackboard. Then if the teacher himself has something more he should tell the students and write it on the blackboard. Ask them if they are really useless things. Read out all the names written on the blackboard and let students copy them into their exercise books.	4 Students complete the list of solid waste items produced at home questioning whether they are really useless.	10 minutes
5 Homework: Students should observe how their environment looks like, clean or dirty? If it is dirty explain why in the next lesson. They bring the pictures of clean and dirty courtyards, which they coloured in.				



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade II**

**Lesson 3: Responsibility and ways of keeping the home environment clean.**

**Objectives:** At the end of this lesson, students will be able to:

- Knowledge**
- describe one's own responsibility to keep the home environment clean.
  - list the ways of keeping one's home environment clean.
  - list the advantages of a clean home environment.

This lesson also helps the students to develop following attitudes.

- Attitudes**
- feel a sense of responsibility in keeping one's home environment clean.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 We are also responsible to keep our home environment clean because we have also made it dirty. Our parents alone cannot keep the home environment clean. We have to help them in this job.</p>	<p>Cards 15 flannel board.</p>	<p>1 Teacher will hold the card 15 in his hand and show it to all the students, then she/he will stick it on the flannel board or hold it up. The teacher will ask the student what all the people are doing in the picture? In the conclusion the teacher will make the students clear that if we could work together at our home and co-operate each other, we can keep our home environment clean.</p>	<p>1 a Students say they are also responsible to keep the home environment clean. 1 b Students express that each of the family members need to work together to keep the home environment clean.</p>	<p>5 minutes</p>
<p>2 If we could keep our home environment clean, we will have following advantages.</p> <ol style="list-style-type: none"> <li>It looks pleasant.</li> <li>We will like to read, play and live in such places.</li> <li>There won't be any risk of getting accidents (we slip and get wounds in dirty places).</li> <li>There won't be flies and other insects (mosquitoes, cockroaches).</li> <li>Rats won't come in clean places.</li> <li>There won't be the presence and growth of pathogenic organism (these organism are very small insects, which we cannot see with our naked eyes. They can make us sick).</li> <li>There won't be any bad smell.</li> <li>People like to come to our home and will appreciate keeping the home environment clean.</li> </ol>	<p>Cards 3,7, flannel board, chalk, duster, board, pictures of clean- and dirty courtyard</p>	<p>2 First of all, teacher will hold the card 3 with the help of students and again he will hold the next card i.e. 7. Teacher will ask the students to compare both sets of pictures and ask: In which pictures there are flies, insects, rats etc. Teacher asks the students to explain why card 3 looks clean without flies and card 7 full of flies. In which environment the people look healthy etc. Teacher holds up the pictures of clean and dirty courtyards. Finally, teacher will write each of the advantages of a clean home environment on the board and explains it to the students to repeat it. (If flannel board is available it should be used).</p>	<p>2 a Student differentiate the homes with clean and dirty environment. 2.b Students name the advantages of clean home environment.</p>	<p>20 minutes</p>
<p>3 We can keep our home environment clean and pleasant by different ways, such as</p> <ol style="list-style-type: none"> <li>by not throwing the leftovers indiscriminately in and around the home.</li> <li>by not scratching and writing on the wall.</li> <li>by not spitting everywhere.</li> <li>by not entering the home with dirty shoes.</li> <li>by keeping the household materials in proper places.</li> <li>by not defecating carelessly in and around the home.</li> <li>by organizing cleaning activities regularly in the home.</li> <li>by constructing garden in the home (if there is suitable place for this) and planting different kinds of plants (flower and fruit plants).</li> </ol>	<p>Not needed</p>	<p>3 Teacher will ask the students to name the ways of keeping the home environment clean. After students' responses the teacher describes how to keep the home environment clean.</p>	<p>3 Students name the ways of keeping the home environment clean.</p>	<p>15 minutes</p>



**SUBJECT: HEALTH EDUCATION**

**UNIT 1: PERSONAL HYGIENE**

**Grade II**

**Lesson 1. Effects of dirty hands, feet and face**

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge:** a) explain the effects and dangers of having dirty hands, feet and face

**Skills:** a) observe and distinguish clean and dirty hands, feet and face

This lesson also helps the students to develop the following attitudes.

**Attitudes:** a) appreciate clean hands, feet and face

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 If we have chalk dust or any dust in our face it becomes dirty	Chalk dust	1 The teacher will put some chalk dust in his face and ask students whether his face, hands and feet are clean or dirty	1 Students say that his face and hands are dirty	5 minutes
2 If we have clean hands, feet and face people will appreciate it		2 The teacher will ask the students to observe their partner's hands, feet and face to distinguish whether or not they are clean He/she will also observe them and will praise those who have clean hands, feet and face	2 They observe and distinguish whether or not their hands, feet and face are clean.	10 minutes
3. If we have dirty hands, feet and face, they have the following effects a dirty hands may cause diarrhoea b danger of skin disease like pimples and infections in cuts c it smells bad and looks nasty	Chalk and duster	3. The teacher will ask the effects of dirty hands, feet and face to the students. He will discuss the responses given by the students and add some points if necessary Some children repeat.	3. The students will respond and distinguish whether or not their hands, feet and face are clean.	6 minutes
4 If we keep our hands, feet and face dirty, it will affect our home, classroom and school.	Rice husk, or ash or soil	4 The teacher will put some husk or ash or soil in front of the door and one of the students will be asked to step there and come back to his own seat At the same time the teacher will show the students how a dirty place affects other places He will also touch door and desk with his hand (chalk dust) to show how dirty hands make another place dirty	4 Students explain how dirt can be transmitted to another place.	15 minutes
5 We should clean our hands, feet and face if they become dirty		5 Students will be asked what should we do if we have dirty hands feet and face The teacher will collect the responses of the students and finally he will say that we should wash them.	5. Students will say that we should wash our hands, feet and face	4 minutes



**SUBJECT: HEALTH EDUCATION**

**UNIT 1: PERSONAL HYGIENE**

**Grade II**

**Lesson 2: Methods of cleaning hands, feet and face**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:** a) explain that soap and water should be used to wash hands, feet and face

**Skills:** a) demonstrate washing hands, feet and face

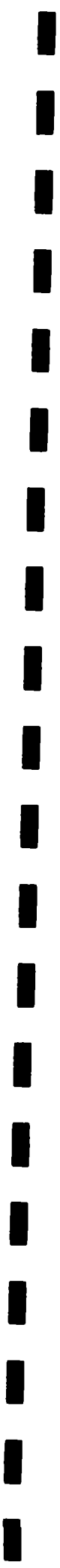
This lesson will also help the students to develop following attitudes.

**Attitudes:** a) enjoy washing hands, feet and face

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 We should use soap and water to wash our hands, feet and face	Chalk dust	1 The teacher will ask what should be used to wash hands, feet and face Then he will explain that we should use soap and water to wash them	1. Students will say that soap and water should be used to wash.	5 minutes
2. While washing hands, feet and face, we should first wash feet, then hands and face. We should use soap and water and wash carefully.	Soap, water, towel, mug, bucket, bowl etc.	2. The teacher will take the students outside the classroom.  Students will be organized in a semi-circle, form to demonstrate them how to wash hands, feet and face. Then teacher will demonstrate	2. Students will follow the teacher without making noises.  Students will observe the demonstration of washing hands	6 minutes
3. Care should be taken to wash bases of the fingers Face should be washed after washing feet and hands.	Soap, water, towel, mug, bucket, bowl etc.	3 Students will be divided in groups in accordance with availability of soap water and place. They will be asked to wash their feet, hands and face Rest of the students will watch the practicing of washing. The teacher will also observe the task and make necessary corrections in washing.	3. Students will wash their feet, hands and face as instructed by their teacher.	20 minutes
4. After washing hands, feet and face they smell nicely.		4. After washing their hands, feet and face the students will be asked to observe their partners to examine whether or not they are clean.	4. They will observe their partners and will identify if they are clean.	5 minutes
5 We always feel comfortable when we have washed our hands, feet and face. We also realize that we are clean		5. Students will be asked whether they realize the difference between being clean or not. Then the teacher will ask the students whether or not their hands smell bad. Finally, the students will be instructed that whenever they come to school they must wash their hands, feet and face	5 The students will realize that they are clean	4 minutes

**Note** If water tap or tank is available in the school, activities under 3 should be conducted there.

If not available we can use bucket If it is also not possible, nearby water sources can be used





SUBJECT: HEALTH EDUCATION  
UNIT 1: PERSONAL HYGIENE

## Grade II

## Lesson 3: General rules for personal hygiene

Objectives: At the end of this lesson, students will be able to:

## Knowledge:

- a) explain the importance of hygienic rules and habits to clean hands, feet and face  
b) prepare a list of hygienic rules to prevent hands, feet and face from being dirty

## Skills:

- a) practice personal hygiene to keep environment clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Persons having clean hands, feet and face are always praised and they themselves also feel good		1 The teacher will observe all the students to know whether or not they are clean. He will praise those students who are clean. He will suggest to clean themselves to the dirty ones.	1 Students have clean hands, feet and face	5 minutes
2 It is necessary to establish habits of keeping clean hands, feet and face daily clean. For developing these habits hygienic rules should be followed		2 The teacher will let the students discuss about how to develop cleaning habits. Finally he will emphasize to follow hygienic rule to develop cleaning habits	2 Students will explain the importance of following hygienic rules for developing cleaning habits	5 minutes
3 Hygienic rules should be made to keep hands, face and feet clean. - hands should always be washed with soap water before eating, after defecation and whenever we touch the dirt. - feet should be washed after walking in dirt, after playing and before going to bed - shoes should always be worn - face should be clean after awaking after playing and before going to the bed	Chalk, duster, blackboard           exercise book	3 a The teacher will ask the students when should hands, feet and face be washed. He will write 'rules of personal hygiene' on the board and under that heading he will write the students' responses.  3.b Let the students read the rules written on the blackboard. Each student will be allowed to read a rule. The teacher will help if necessary. Then he will let the students discuss about the rules.  3 c Students are asked to copy the rules for personal hygiene from the blackboard.	3 a Students will participate in making hygienic rules  3 b They will read the rules and take part in discussion.  3 c Students write down the rules for personal hygiene.	12 minutes  12 minutes  8 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

**Grade II**

**Lesson 1. Organic/Inorganic waste**

**Objectives:** At the end of this lesson, students will be able to:

- Knowledge:**
- a) name the different things which are perishable or will rot (organic) and those which will not rot (Inorganic)
  - b) classify things which are considered solid waste or useless in the home.

This lesson will also help the students to develop the following attitudes.

- Attitude:**
- a) be curious in classifying solid waste or things to be considered as useless.
  - b) realise that solid waste or useless things at home should be classified before throwing them away.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 The organic or perishable things consist of the living things like plants or animal matter and the products or the remains of such items. The inorganic or those substances which do not rot are lifeless material, so are the remains of these materials like glass, plastic, etc	Chalk, duster, blackboard	1 Let students list the names of useless things (leftovers). The teacher would write the two groups, "rotten or perishable things" and "not rotten or not perishable" on the blackboard. (Make a table). Let each student tell one item, discuss in which group it belongs and conclude with question answer whether the choice is right. The teacher should write it in the appropriate group. The students should also classify leftovers into two groups.	1 Students name different things which are perishable and will rot and those which will not rot (organic and inorganic)	10 minutes
2 The peel of a banana, apple core and other remaining parts of the fruits and vegetable matter (perishable things) should not be thrown away but can be put on one pile, covered with soil or leaves. They will transform into a rich fertilizer for flowers + vegetable + grains.	Book page 73	2 Teacher distributes the book and asks children to look at the third row of cards, which represent a compost-pile, banana peel, apple core and some flowers. Children describe, the teacher explains the process for composting.	2 Students explain what happens with perishable things.	10 minutes
3 Inorganic leftovers also can serve as something useful, i.e. a tin can be used as a flower pot or decorated as a pencil holder. Paper can be collected and recycled to make new paper. Glass can be collected and recycled to make new glass items.	Book page 73 Game, page 6 - 9 in the back-pocket of the book	3. Teacher asks to look at all other cards and lets children describe. He/she helps and explains how to reuse or recycle some leftovers at home which can be reused.	3 Students describe the picture and explain how to reuse some inorganic leftovers.	15 minutes
4 "Garbage is a matter of opinion" means that for some people certain leftovers are useless like old paper, glass cans and to some people they are very useful. Those leftovers are not waste for everybody.	Book page 73	4 Teacher reads the text of page 73 and asks children to interpret. He/she helps if necessary.	4 Students say that many leftovers are waste to one person and useful items to others.	5 minutes

**Note:** Some money should be collected to buy three small waste baskets. If this is not possible, the teacher should find 3 cardboard boxes for lesson 3.



**SUBJECT :** HEALTH EDUCATION  
**UNIT 2:** ENVIRONMENTAL SANITATION  
**Sub-Unit 1:** Solid Waste

**Grade II**

**Lesson 2 . Organic/Inorganic waste**

**Objectives :** At the end of this lesson, students will be able to:

- Knowledge:** a) to name organic and inorganic leftovers which can be used again  
**Skill :** a) classify things which are considered solid waste or useless in the home

This lesson will also help the students to develop the following attitudes.

- Attitude:** a) be curious in classifying solid waste or things to be considered as useless.  
 b) realise that all leftovers at home should be classified and reused if possible

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Many leftovers can be reused by somebody, like bottles, plastic bags, tins, paper, cardboard and all organic leftovers	Not needed	1 Teacher asks students to name leftovers at home which can be reused by somebody for something	1 Students name leftovers which can be reused. The teacher explains how to reuse them.	5 minutes
2 Playing the card game we learn the classification of waste materials. The four cards, which have the same small pictures above, form one set. The aim of the game is to collect as many sets as possible, asking other players for missing cards. If the player has the card he/she is obliged to give it, if not it is his/her turn. Otherwise he/she can go on asking. (See "My World" Page 88/89)	Games in the back pocket of the book (No 6-9) Instruction "My World" Page 88/89. Scissors Additional Colouring pencils, glue, cardboard	2 a) Teacher asks to take out the games No. 6-9 from the back pocket of the book. b) Teacher teaches students how to play cards. Students read the instructions of the game on Page 88/89. c) Students are asked to cut out the cards and form groups of four to five. d) Teacher asks to describe the cards of each set. Note: If time permits cards can be coloured and pasted on cardboard	2 a) Students explain how to play the card game b) Students classify waste theoretically	15 minutes
3 Most of the leftovers are not to be thrown away because they can be reused, or used for composting. (See Manual, Teacher's Guide, Page 9)	See above	3 Teacher goes around and gives assistance to play the game. If necessary he/she demonstrates the card game with some other children	3 Students play the game, classifying leftovers.	20 minutes

Homework: Students are asked to bring leftovers from their homes: kitchen waste, old papers etc.



**SUBJECT :** HEALTH EDUCATION  
**UNIT 2 :** Environmental Sanitation  
**Sub-Unit 1:** Solid Waste

Grade II

Lesson 3. Classification of waste

**Objectives :** At the end of this lesson, students will be able to:

**Knowledge:**

- name the different problems caused by improper solid waste disposal at home
- name leftovers for composting, for recycling and reusing, and other non-usable leftovers

**Skills:**

- select proper methods of disposing solid waste produced at home
- classify organic waste, paper and inorganic waste

This lesson will also help the students to develop the following attitudes.

**Attitude:**

- be curious in disposing waste properly
- realize the problems of improper disposal of solid waste

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 In order to manage solid waste properly, first of all the leftovers should be separated according to their kinds, for example solid waste which is rotting should be kept in one container, papers and other leftovers which students can clean in another container, and the rest of solid waste in another container. If solid waste is not separated in this way but kept in one container, we face a problem where to leave solid waste. Dumping it carelessly affects the health of human beings and the environment also. Creating solid waste always remains a problem.	Solid waste brought by students and the teacher and a basket	1 Let all the students collect solid waste brought from home in one basket. By showing the basket of solid waste, the teacher should discuss by asking the following questions: <ul style="list-style-type: none"> <li>- What to do if waste is outside of the container?</li> <li>- What happens if all solid waste is always dumped in one container?</li> <li>- What happens if the waste container full of waste is kept in the classroom.</li> </ul> <p>In this way, solid waste is produced in our homes every day. If solid waste is collected in this way, where to keep them within some days, weeks, months or after three or four years? etc.</p>	1 Students dispose solid waste in a basket. They name problems caused by improper waste disposal.	10 minutes
2 Organic leftovers can be used for composting and will be stored in the green basket. Paper can be recycled at school and is stored in the red basket together with other leftovers which can be reused. Remaining leftovers which we cannot use or think we cannot give use are kept in the yellow container.	Three coloured baskets marked with a red, yellow and green pen. The former solid waste container, soap, water, towels etc.	2 The teacher keeps three baskets of red, green and yellow in the class. Let each student select only one thing from the previously collected solid waste container and keep it in one of the baskets. The perishable or rotting things should be kept in a green basket, only paper in the red basket and the rest of the things should be kept in the yellow basket. For this activity, the teacher divides students into three groups and let each group keep one thing in one basket. If students cannot decide, the teacher discusses on it with students and let them put it then in the appropriate basket. In this way, after all the solid waste items are kept in three separate baskets, let them wash their hands properly and cleanly.	2 Students classify organic waste, paper and inorganic waste. Students wash their hands properly.	20 minutes
3 <ul style="list-style-type: none"> <li>- green for composting</li> <li>- red for recycling</li> <li>- yellow for all remaining leftovers</li> </ul>	Blackboard	3 Teacher asks: From tomorrow students should bring useless things or solid waste from their home everyday and keep them in one of the baskets. Children are asked to bring the leftovers already separated. Teacher writes onto the blackboard (see subject matter) and let children name what they can bring from home and in which column it should be written.	3 Students name leftovers for composting leftovers for reuse/recycle and other leftovers. They write them into their exercise book.	10 minutes





**SUBJECT : HEALTH EDUCATION**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

**Grade II**

**Lesson 4 Making of compost**

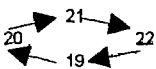
**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:** a) explain the method of making compost by using organic objects (rotting things) which are often considered useless and thrown away as solid wastes

**Skills:** a) start making compost by using organic objects (rotting things) collected from the previous classes

This lesson will also help the students to develop the following attitudes.

**Attitude:** a) realize that compost can be made from organic objects  
 b) be curious about making compost

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Compost can be made by dumping organic (rotting) things in one corner of a field or a kitchen garden. If there is no field or kitchen garden, compost can be made in a pot or compost container. We can keep it in a corner of a courtyard or just outside the house. Optional: Consult the manual 'Background information' and Guide to the book Page 8/9.	Teaching cards 19-22	1 The teacher puts up the cards one by one placing them in a circle, on a flannel graph (if there is one). The children are asked to explain what they see. The cards should be placed in the following order:  If there is no flannel board 4 students hold the cards	1 Students explain the procedure for composting with the example of a banana peel.	10 minutes
2. The organic leftovers being gathered in a pile transform into compost. Inside the pile heat is being produced in this process, killing all pathogen germs. Small piles have to be covered. After 7 days the pile has to be turned. a) to add oxygen which is needed in this process. b) to place the outer layers of the pile inside, so pathogen germs can be killed. In about 6 weeks the compost is ready.	Chalk, duster and board	2. The teacher asks students the following questions: <ul style="list-style-type: none"> <li>- What are organic objects or rotting things which are used for making compost?</li> <li>- What is to be done for making compost?</li> <li>- Why has compost to be turned (upside down every seven days)?</li> <li>- What is happening inside the compost pile?</li> <li>- Why has the compost pile to be covered?</li> <li>- When is compost ready?</li> <li>- For what purpose compost is used?</li> </ul> At the end the teacher explains to the students clearly about the method of making compost and why it is used.	2. Students explain the process of composting	10 minutes
3 The transformation process of organic leftover into compost (fertilizer) needs a) heat which is produced by the transformation itself. In small piles a mat protects the heat. b) oxygen that is why we have to turn the pile after some days, and c) moisture which the organic leftovers contain themselves. The pile should be protected against rain, because too much water makes the organic matter foul. If it is too dry, water should be sprinkled.	Penshable things or organic objects collected in the previous lessons and collected in the green basket. If possible: straw, soil, water, (plastic for covering if possible), soap, water, towel.	3 Let students carry the baskets of waste things collected in the class and pile them in one corner of the school. If students have brought organic objects today also let them dump it in the same place. If straw is available cover the organic leftovers with straw. If not cover with soil. After covering, sprinkle a little water on it if the organic waste material is very dry in the dry season. If it may rain, cover it with old mat, then with plastic. If there is no place in the school for making compost, let students make compost in the container. After covering the pile, all students including the teacher should wash their hands with soap and water.	3 Students will prepare some compost, cover it and then wash their hands	20 minutes
4 Homework: For the next lesson, tell the students to bring tin cans, and papers which are considered useless for their homes. Note: Teacher also brings these items.				

Note: The teacher should divide the students into eight groups. Each group is assigned to add organic leftovers gathered in the green basket and turn the compost collected in one corner of the school over every seven days. During leisure time of the day or after the last period, the teacher should take the duty group along with other groups to the compost place. Let the group turn over the compost properly, the teacher should help them. In this way, after six to eight weeks, the compost will be ready. That compost can be used for the plants of the school. The teacher should demonstrate the method and let them also practice it.



**SUBJECT : HEALTH EDUCATION**

**UNIT 2 : ENVIRONMENTAL SANITATION**

**Sub-Unit 1: Solid Waste**

**Grade II**

**Lesson 5: Reuse of inorganic wastes**

**Objectives: At the end of this lesson, students will be able to:**

**Knowledge:** a) describe that some of the inorganic household waste items like tin cans, boxes, papers and bottles can be reused.

**Skills:** a) reuse some of the inorganic household waste items like tin cans and bottles (demonstrate the methods of reusing those materials)

**This lesson will also help the students to develop the following attitudes.**

**Attitude:** a) be interested and enjoy making reusable items from some of the inorganic household wastes like tin cans and bottles

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 We can reuse small tin cans, cans of powder milk and boxes, etc. These materials can be used to keep different household items like combs, pen, pencils, tooth brush and similarly other materials. The reuse also reduces the waste.	Used tin cans (small or big in size) and boxes and papers Teaching cards 27, 28 and 29.	1 Teacher asks the students to hand over the tin cans or boxes. He distributes the material to the students according to the groups formed by the teacher. (If there are enough tin cans and every student can have one, there is no need to divide the students into different groups) Then the teacher discusses with the students on the methods of reusing the used tin cans.	1 Students name the different inorganic materials which can be used again. 1.1 Students discuss on how to reuse tin cans and boxes which are considered waste.	10 minutes
2 See above	Colouring pencils or water colour, brush combs, nail clipper, eraser, tooth paste, tooth brush, glue, plain paper, pencil etc.	2. Teacher assigns the students, individually or in group, to wrap the tin can with papers or to glue the papers on it, they draw different pictures. If there are not sufficient tins the cards 27, 28 and 29 should be coloured. Then he will demonstrate the students how to keep pen, tooth brush, combs, nail clippers etc. in it.	2. Students make containers for pen, pencils, combs, tooth brushes, nail clipper etc. and of used tin cans and colour it.	25 minutes
Note: If children did not bring tin cans, the teaching cards No. 27, 28 and 29 should be shown and explained.				
3 We can reuse bottles of different sizes as a container for keeping the spices, drinking water by just cleaning them. We can also use them as flower pots to decorate our room by painting it or sticking some beautiful pictures around it.	Used bottles of different sizes, flowers, water, paper flowers etc.	3 Teacher discusses with the students on the methods of reusing different bottles (beer, squash, ink, horlicks etc.) Then he demonstrates how to use these bottles to keep different household items as a flower pots etc. The glass bottles should not be given to the students because they could cut them.	3 Students name methods of reusing used bottles at our houses.	5 minutes
4 Homework: In the next lesson, we will discuss on how to reuse paper, plastic pieces, plastic bags etc. therefore please bring such useless materials from your house.				



**SUBJECT :** HEALTH EDUCATION  
**UNIT 2 :** ENVIRONMENTAL SANITATION  
**Sub-Unit 1:** Solid Waste

Grade II

Lesson 6 : Reuse of Inorganic wastes

**Objectives :** At the end of this lesson, students will be able to:

**Knowledge :** a) name some of the inorganic household wastes like paper, plastic, plastic bags etc. which can be reused and the method of reusing these materials

**Skills:** a) demonstrate how to reuse such materials like plastic containers, paper, plastic bags etc. (which are considered as waste at our homes)

This lesson will also help the students to develop the following attitudes.

**Attitude .** a) be curious, to enjoy and appreciate reusing some of the household inorganic waste like papers, plastic containers, plastic bags etc.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D Learning Outcome	E. Estimated Time
1 We can use paper (except small pieces) e.g. newspapers, old magazines etc. to wrap items or to make bags out of them etc.	Some big size papers e.g. old newspapers, magazines, notebooks, glue, towel etc.	1 a Teacher asks the students to separate small pieces of papers and big size papers etc. out of those papers which were brought by the students from their respective homes. Let the students know that today they will learn about how to reuse big size papers only. Next day only there will be discussion on how to recycle small size papers.  Teacher discusses on the methods of reusing big size papers by demonstrating it to the students. Finally, the teacher demonstrates the method of wrapping items in big size paper and the method of making paper bags gluing it together.  1 b Teacher distributes big size papers to each of the students and asks each one of them to make one paper bag.	1 a Students name some of the methods of reusing big size papers  1 b Students make paper bags out of old papers	20 minutes
2 We can reuse big size plastic pieces (except very small ones) to cover some materials in order to protect it from water. Similarly we can re-use old plastic bags by just cleaning them properly.	Big size plastic pieces, old plastic bags	2. Teacher explains the students how to reuse different type of plastic pieces as well as old plastic bags. Then he asks them to demonstrate it in the classroom. The students will use those plastic bags and plastic pieces which they had brought from their homes.	2 Students describe the methods of reusing old plastic bags	8 minutes
3 Besides paper and big pieces of plastics other used materials like small pieces of plastics, torn out of plastic shoes, mugs etc. can be sold to those people who come to collect these items from our homes. So, we can also generate some income out of these materials which have no more use to us. Similarly if we do not reuse other materials like old newspapers, magazines etc. we can sell it to those people who come to buy it or we can directly sell it to the shopkeepers too. Likewise, we can sell bottles, old metal items (which cannot be used again). We can sell these materials to generate some income.	Torn out plastic shoes, old and broken plastic pots, metal pieces	3 Teacher explains them that we can generate some income by selling - or giving them to somebody who collects them and then sells it - those materials which we cannot reuse at our homes e.g. shoes, old newspapers, bottles, metal pieces etc. He/she should clarify different ways of income generation out of those waste materials to the students by discussion and question/answers methods.	3 a Students name different types of old household items which are being taken away by the people who collect it from our houses.  3 b Students explain that we can generate some income by selling those materials which we cannot reuse at our homes.	12 minutes
4 Homework. Ask students to bring old papers (except oily and really dirty papers) from their houses for the use in the next class.				



**SUBJECT : HEALTH EDUCATION**

**UNIT 2 : ENVIRONMENTAL SANITATION**

**Sub-Unit 1: Solid Waste**

**Grade II**

**Lesson 7** · Recycling of paper

**Objectives** · At the end of this lesson, students will be able to.

**Knowledge :** a) explain the method of making new paper out of the used or useless papers at home

**Skills:** a) cut old paper into small pieces and wet them in order to make new (paper) ones.

This lesson will also help the students to develop the following attitudes.

**Attitude:** a) be curious about making new paper out of old ones.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 While making new paper out of old ones we can prevent the destruction of many trees and using lots of water  (See Manual, Guide to the book Page 11)	The story of paper Page 52-58	1 Teacher divides students according to their number and books available into groups, distributes the book "My World" to them and let them read and look at the story entitled "The story of paper." If students are not able to read the dialogue of the story let them look at the pictures and the teacher should read the dialogue. After reading the story and looking at the pictures, let the students discuss it by asking questions. During the discussions, let the students compare the cost of making paper out of raw material such as trees and out of old used paper. If necessary the teacher should explain it very clearly	1 a Students read the dialogue and look at the pictures.  1 b Students discuss the cost of making paper	20 minutes
2 Used paper is torn into tiny pieces soaked in water and ground. Water will be added and with a screen new paper can be produced		2 According to the instructions given in the back of the book, the teacher explains to the students, through discussion and question and answer, the method how to make new paper out of old one	2. Students should discuss the process of making paper	10 minutes
3 See above No 2	Paper collected in the previous lessons and the ones brought by the students today. Scissors, pot to soak the paper, water	3 The teacher distributes the papers collected in the previous lessons and the old papers brought by the students today and tears all those paper into small pieces. The teacher demonstrates then how small the pieces of paper should be. Let the students keep those small pieces of paper in a pot. The teacher should help them	3 Each student cuts or tears the paper into small pieces as a preparation for paper recycling	10 minutes
4 Homework Children should tear more paper into tiny pieces and hand them over at least a day before the next lesson				

Note All small pieces of paper should be soaked in water by the teacher one day before the following lesson.





**SUBJECT :** HEALTH EDUCATION  
**UNIT 2 :** ENVIRONMENTAL SANITATION  
**Sub-Unit 1:** Solid Waste

Grade II

Lesson 8 : Recycling of paper

Objectives : At the end of this lesson, students will be able to:

Knowledge : a) describe the procedure of paper recycling.

Skills : a) make new paper out of ground paper.

This lesson also helps the students to develop the following attitudes.

Attitude : a) be interested in making new paper out of old ones.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 The soaked pieces of paper should be ground and water would be added. Out of this mixture we can extract sheets of paper with a screen.</p> <p>See instruction in "My World" Page 89-92</p>	<p>Instruction for making paper, Page 89-92</p> <p>Paper making frames, wiping clothes, old newspapers, bottles etc</p> <p>Tray, water, ground paper</p>	<p>1 Teacher forms as many groups of four students as many frames she/he has got. The others form a circle. One student of each group sinks the paper-making frame into the pot with ground paper pulp and slowly lifts the frame out of that pot with both hands. The teacher tells them what steps they should do following the instructions. Then she/he lets the second student of each group wipe off the water from the frame with a towel and dry it (after drying). When it dries, let the third student of each group take out the wet paper from the frame and dry the paper by putting some old newspapers on it and pressing the covered paper with a bottle or with hands. When this paper becomes dry he/she lets the fourth or last student of each group take out the newly made paper, dry it in the sun or in the shade according to the appropriate situation. This way each group of four students make the paper. While students are busy involved in paper making work, the teacher would check/observe each student's work. If they are not working properly, the teacher should explain to them clearly and help and guide them according to their needs.</p>	<p>1 a Students assist in making paper in a group setting</p> <p>1 b Some students make new paper out of used papers</p> <p>1 c Students describe the procedure of paper recycling</p>	<p>40 minutes</p>
<p>Stick the papers made by the students onto the walls of the classroom. If possible or if time is available let them make cards out of that paper and draw pictures on those cards and paint them with colours.</p>				



**SUBJECT :** HEALTH EDUCATION  
**UNIT 2 :** ENVIRONMENTAL SANITATION  
**Sub-Unit 1:** Solid Waste

Grade II

Lesson 9 . Responsibility of proper waste disposal

Objectives : At the end of this lesson, students will be able to:

Knowledge : a) explain that each family member is responsible for solving the problems of solid waste produced at home.

Skills : a) find ways of solving the problem of dumping waste

This lesson also helps the students to develop the following attitudes.

Attitude : a) realize the responsibility of solving the problem of solid waste produced at home.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1. Each family member has the responsibility for managing solid waste produced at home properly</p> <p>If only one family member always cleans the house and the rest doesn't participate and handles waste carelessly, it will not be clean. It always stays dirty.</p> <p>In order to solve the problem, each of the family members are to participate in keeping the house clean.</p>	<p>The book "My World" "Animal Helps Us"</p> <p>Page 7-14</p>	<p>1. On the basis of the books available in the classroom, the students should be divided into groups and the books should be distributed to them. Let them look at the picture in the story "Animal help us" and teacher reads it out clearly. The teacher should ask the students the following questions:</p> <ul style="list-style-type: none"> <li>- What did you understand after reading the story?</li> <li>- Who has the problem and why?</li> <li>- How should we complete the story? Etc.</li> </ul> <p>Conclude the story through discussion and question and answer.</p>	<p>1. Students should read the story and look at the pictures. They should name possible endings to the story.</p>	20 minutes
<p>2. Possible endings of the story could be:</p> <p>a) children cooperate in cleaning the city or</p> <p>b) animals make a campaign in order to make the population aware and help them control the two children</p> <p>c) a fight between the animals and children</p>	<p>Scissors, different colours, glue, the book "My World", games, Page 1,2,3</p>	<p>2. The teacher forms the students into groups according to the situation in the classroom. He/she lets each group use the finger puppets (to be found in the back pocket of the book) in turn and then role play of the story, finding an adequate end. The teacher should encourage each of the groups to present their role play in a different way finding their own solution. The teachers should advise or guide the students according to their needs.</p>	<p>2. Students should act out the story with the finger puppets and invent a possible end to the story.</p>	15 minutes
<p>3. Each family member is responsible for solving the problem of cleaning up the solid waste which is produced at home</p> <p>Form good habits of always properly managing the solid waste or useless items by either keeping them in one</p>		<p>3. Teacher starts a discussion: Who is responsible for solving the problem of cleaning up the solid waste which is produced at home? Who should do it, etc? Ask the students these questions and discuss them. Teacher emphasises the responsibility of each child at home</p>	<p>3. Students explain why each family member is responsible for solving the problems of solid waste produced at home.</p>	5 minutes
<p>After each group has discussed their role play, the teacher should ask one group of students to present their role play. Let the rest of the group act out the roles during the next period. If there is no time left even for one group then the role play should be practiced or done during the next lesson.</p>				



**SUBJECT : HEALTH EDUCATION**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

Grade II

Lesson 10 : Proper habits for waste disposal

Objectives : At the end of this lesson, students will be able to:

Knowledge :

- explain the fact that different habits need to be developed in oneself and in each of the family members at home in order to manage solid waste properly
- mention his/her way of helping in order to cooperate in the management of solid waste at home properly
- identify the individual practices to be developed in each person in order to manage solid waste at home properly

Skills:

- help or cooperate in the work of solid waste disposal at home properly.
- select appropriate methods of solid waste disposal at home.

This lesson also helps the students to develop the following attitudes.

Attitude : 

- realize that it is his/her responsibility to manage the solid waste at home properly.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 In order to manage the solid waste or solve the problem(s) of solid waste, we should develop our own personal and individual habits. We have to practice many things. For example:</p> <ol style="list-style-type: none"> <li>As far as possible, do not use things which are unnecessary or used only once and cannot be reused</li> <li>Let us try our best to make things which are considered useless worth something (reuse).</li> <li>From good habits of always properly managing the solid waste or useless items by either keeping them in one place or placing them carefully in a container.</li> </ol>	Chalk, duster, board etc	<p>1 The teacher tells the students that it is our or each family member's responsibility to manage the solid waste or to solve the problem(s) of solid waste in and around the home. The teacher should ask the following questions during discussions.</p> <ol style="list-style-type: none"> <li>What kind of individual/personal habits should be developed in order to manage the solid waste properly?</li> <li>What kind of habits do we always have to practice?</li> </ol> <p>The teacher should write the conclusions of the discussions along with the comments and reactions from the students regarding the things written on the blackboard. Let the students copy from the blackboard all the individual and personal habits which they need to develop for managing solid waste</p>	<p>1 Students name the habits for proper waste handling at home.</p> <p>b. Children copy all the habits for proper waste handling from the blackboard</p>	10 minutes
<p>2. Children can help or cooperate in managing solid waste properly which is produced at home. For example, let the students collect solid waste from the home and keep it in one place or in a container. Classify the waste items into reusable and non-reusable. Give the reusable items a new use</p>	Chalk, duster, board, etc.	<p>2. The teacher asks the students the following questions and then discussions should take place:</p> <ul style="list-style-type: none"> <li>- What help or cooperation can you give in order to manage the solid waste at home properly?</li> <li>- How should you help or cooperate to manage the solid waste at home properly etc ?</li> </ul> <p>Now the students will know how to help or cooperate to manage the solid waste. But do the students know the causes why they should cooperate and help keeping their homes free of waste? Teacher collects the answers</p>	<p>2. Students name ways of cooperation in managing solid waste at home properly</p>	10 minutes
<p>3 To be healthy requires a healthy environment. If we can take care of the solid waste ourselves then we can save public money making useful things out of leftovers we can also generate an income. If we keep our surrounding clean, it looks nicer and we feel better. It can be fun to find out what to do with the leftover we think we don't need anymore (See manual, guide of the book, Page 12/13)</p>	Chalk, duster, board, the book "My World"  We all have good reasons to cooperate"  Page: 83-85	<p>3 The teacher forms students into groups on the basis of the number of students and books available in the classroom. Then he/she distributes the books to them. He/she lets the students read the last three pages of the lesson entitled "We all have good reasons why we cooperate." If they cannot read the lesson, the teacher should read it out loud and let the students discuss on each reason given by the children in the book. Then children are asked what is their main interest to clean. The students should copy all reasons from Page 84.</p>	<p>3.a Children read the text or listen to it</p> <p>3 b They should identify and name the different reasons for cooperating in proper waste management.</p>	20 minutes



**SUBJECT : HEALTH EDUCATION**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 2: Excreta Disposal**

**Grade II**

**Lesson 1** : Proper places of defecation at home.

**Objectives** : At the end of this lesson, students will be able to:

**Knowledge.**

- a) identify the proper places of defecation at home.
- b) name the harms due to defecation in the improper places at home.
- c) name different rules which need to be followed while using latrine at home.

This lesson also helps the students to develop the following attitudes.

**Attitude** : a) be aware of one's own habit of defecation.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. If we have a latrine at our home we should keep it in good condition, and we should always use it and should not defecate in other places.	Not needed	1. Teacher will ask the student "Where do you defecate at your home?" After getting the responses from the students, the teacher will explain them that the proper places of defecation at home are latrines.	1 a Students name the different places of defecation at home. 1 b Students say the latrine is the proper place for defecation at home	4 minutes
2. If we do not use the latrine at our home and defecate carelessly around our home, there will be many harms to us and our family members such as: a) It looks dirty b) It gives bad smells	Card 38, flannel board (if possible)	2. Teacher first shows the card 38 to the children and then sticks it on the flannel board if there is one and ask the students, Is it good to defecate around our home and the nearby roads? Teacher will explain some of the harms due to defecation at improper places.	2 a Students say it is not good to defecate around the home and on the roads. b Students name some of the harms due to defecation at improper places	7 minutes
3. If we defecate carelessly around our home, it will attract flies. Flies lay their eggs at dirty places like excreta and their numbers will be increased.	Card 33, flannel board	3. Teacher shows the card 33 to all the students, then she/he sticks the picture 33 on the flannel board if there is one and asks the students "Do you recognize this picture?" After the children's responses, teacher will again ask the students whether they get more flies in clean or in dirty places. In conclusion the teacher will explain the students in which places the flies prefer to lay their eggs.	3 a Students recognize the picture of a fly b Students say there will be more flies in dirty places. c Students explain in which places the flies prefer to lay their eggs	7 minutes
4. If we defecate on other places rather than the latrine at home, we can get diseases. The fly carries pathogenic organisms on the feet, from the excreta (these pathogenic organisms are very small insects which we cannot see with our naked eyes, we need a microscope to see it) and leave it on our food by sitting on it. When we eat that food the organisms also enter into our body along with the food and make us sick.	Card 33, 36 and 42, flannel board, book, Page 63	4. Teacher distributes the book and asks the students to look at page 63. She/he will explain the students that these pictures of different shapes are of pathogenic organisms. We can see them with the help of a microscope only (as shown in the picture).  Then, teacher shows the card 33 and sticks it on the flannel board and explains the students how the fly carries pathogenic organisms on its feet. Teacher will make it clear by sticking the picture 36 and explains how the fly leaves pathogen organisms on our food. Teacher again sticks the picture 42 and explains the students that this boy has eaten the food where the flies left pathogenic organisms. After eating such food this boy is sick	4.a Students say diseases are caused by pathogen organisms and can be found on excreta b Students express that pathogenic organisms can only be seen with the help of microscope. c Students describe how the flies transmit the diseases d Students explain that careless defecation around our homes can make us sick	12 minutes
5. We should follow some of the rules while using a latrine at home, for example a. If there is no water in the latrine we need to carry enough water, while going for defecation. b. Wash properly after defecation c. Washing hands with soap and water d. Not touching the walls, water containers and different part of the body with dirty hands etc	Chalk, duster, board	5. Teacher asks the students "Whether we need to follow some of the rules while using the latrine at home?" Teacher discusses it with the students. Finally, teacher explains some rules while writing them on the board	5. Students name the rules which need to be followed while using a latrine at our home	10 minutes

**Note** Teacher should tell the helper who is responsible for cleaning the toilet at school to take extra care in keeping it in good condition.





**SUBJECT : HEALTH EDUCATION**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 2. Excreta Disposal**

Grade II

Lesson 2 Proper use of latrine at home and its advantages

Objectives At the end of this lesson, students will be able to:

Knowledge. a) name the different ways of using latrine properly at home  
 b) list the advantages of using latrine properly at home.

This lesson also helps the students to develop the following attitudes.

Attitude: a) be aware of the advantages using a latrine at home.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 We should also follow some of the proper ways while using latrine at home such as</p> <p>a) To defecate right at the hole of the pan and not in other places like the place where we put our feet etc</p> <p>b) To wash away the excreta after defecation</p> <p>c) To pour water at the place where we pass urine</p>	Chalk, duster, board, cards 39 and 48, flannel board	1 Teacher will ask the students 'We need to follow proper ways while defecating in latrine what are those proper ways?' After responses from the students teacher will write each of the ways on the board and explain it to the students. Teacher will ask the students to repeat all the ways written on the board. Then, teacher will first show the card 48 to the students then stick it on the flannel board, if there is one, and ask the students 'whether the man in the picture is defecating properly or not?'	<p>1 a Students name the proper ways to use the latrine at home</p> <p>1 b Students name good habits and bad habits using a latrine at home and compare them.</p>	20 minutes
<p>2 a) If the 'pan' is dry we need to pour some water on it so that excreta will not stick on it.</p> <p>b) We should not put stone or wooden pieces, plastics, paper etc in the hole of the pan (it blocks the hole and we cannot use the latrine)</p>	See above	2. Likewise, teacher will ask other questions 'Whether the latrine is clean or not? Do you see other materials which are not needed in the latrine? Then, teacher will show the next card 39 to the children and then stick it on the flannel board, if there is one, asking the students 'What do you see in this picture?' Compare the two latrines.' 'We have to keep our latrine like which one?'	2 Students express that they should keep their latrine like the clean one in the picture	5 minutes
<p>3 If we use the latrine at our home properly and do not defecate carelessly in and around our home, we will have the following advantages</p> <p>a) The home environment looks clean</p> <p>b) Diseases won't be spread</p> <p>c) There won't be bad smells</p> <p>d) There won't be any flies.</p> <p>e) It will be convenient for us, as we need not select defecation places in the open</p>	Chalk, duster, board	3 Teacher will ask the students to name the advantages of using a latrine at our home. Teacher will discuss it with the students. Finally, teacher will explain each of the advantages to the children	3 Students name different advantages of using latrine at home	15 minutes



**SUBJECT : HEALTH EDUCATION**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 2: Excreta Disposal**

**Grade II**

**Lesson 3: Proper places and ways of defecation**

**Objectives:** At the end of this lesson, students will be able to.

**Knowledge:**

- a) name some of the habits which needs to be developed in order to use the latrine properly.
- b) describe the criteria of a proper place for open defecation
- c) name different rules which needs to be followed while defecating in the open
- d) describe the advantages of following the rules while defecating in the open

**Skills:**

- a) demonstrate proper use of latrine by acting in the classroom
- b) demonstrate the following of rules while defecating in the open by proper acting in the classroom

**This lesson also helps the students to develop the following attitudes.**

**Attitude :**

- a) be aware of the defecating in the latrine and in the open

A Subject for Teaching	B Material Needed	C Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 We have to follow the rules/ways whenever we use a latrine. In fact we have to develop these different rules/ways as our essential habits. For this, we have to practice it carefully Which are</p> <ol style="list-style-type: none"> <li>a) To defecate right into the hole of the pan and not in other places, i.e where we put our feet.</li> <li>b) To wash away the excreta and urine with water</li> <li>c) If the pan is dry we need to pour water on it, so excreta does not stick.</li> <li>d) To wash hands properly with soap and water</li> </ol>	<p>Chalk, duster, jug, water, bowl or bucket, soap towel</p>	<p>1 Teacher will make a small circle indicating the hole of the pan. With chalk he will also mark the places for putting the feet. Then, he will ask the students 'What is this?' 'Where shall we defecate?' After the students responses teacher will ask one student to come forward (better to invite an older student) and ask him/her to demonstrate how to use latrine (without putting off the clothes) and how to wash hands properly after defecating by acting. After the completion of his acting teacher will ask other students whether their friend has followed rules/ways correctly or not or what are the things he left out. Teacher will also ask the students 'how can you do it correctly, following all steps mentioned before?' Finally teacher explains how to follow rules/ways correctly. Lastly, teachers erases the circle on the floor.</p>	<ol style="list-style-type: none"> <li>1 a Students say where they have to defecate in the latrine.</li> <li>b Students demonstrate the rules/ways which need to be followed while using latrine by acting.</li> </ol>	<p>10 minutes</p>
<p>2. If there is no latrine at home and if there is, but not in good condition, we need to defecate in the open But we have to consider some of the criteria to select proper places for defecation, for example: the places where we go for defecation should not be a busy place where people gather or walk like roads etc It should not be a damp place (because in such places pathogenic organisms and hookworm larvae live for longer period of time We should not defecate too close to water sources like river, ponds etc We should not defecate in the places like playing grounds, gardens, we should not defecate on the places where animals use to graze. (they spread the disease if they happened to place their feet on the excreta)</p>	<p>Chalk, duster, board</p>	<p>2. Teacher will ask the students 'whether it is good to defecate any place we like to do so?' Is there any thing to be considered while selecting the place for open defecation? After the responses the teacher will explain different disadvantages for defecating at certain places. Finally, teacher will write on the board in which places we would not defecate, she/he explains each of the points.</p>	<ol style="list-style-type: none"> <li>2 a Students say that they should not defecate everywhere they like.</li> <li>b Students name the places where they should not defecate</li> </ol>	<p>10 minutes</p>



**SUBJECT : HEALTH EDUCATION**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 2: Excreta Disposal**

Grade II (continued)

Lesson 3: Proper places and ways of defecation

Objectives: At the end of this lesson, students will be able to:

Knowledge

- a) name some of the habits which needs to be developed in order to use the latrine properly
- b) describe the criteria of a proper place for open defecation
- c) name different rules which needs to be followed while defecating in the open
- d) describe the advantages of following the rules while defecating in the open

Skills:

- a) demonstrate proper use of latrine by acting in the classroom
- b) demonstrate the following of rules while defecating in the open by proper acting in the classroo

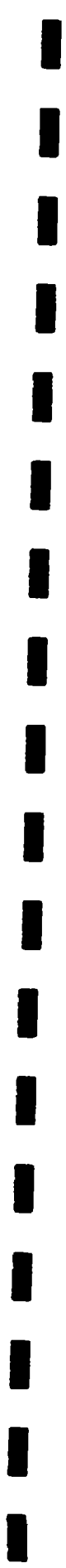
This lesson also helps the students to develop the following attitudes.

Attitude .

- a) be aware of the defecating in the latrine and in the open

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
3 We have to follow some general rules even if we go to open places for defecation, such as to cover the excreta with soil after defecation, washing properly, washing hands properly with soap and water after covering the excreta (if soap is not available washing hands with water).	Cards 38 & 47 flannel board (if available)	3 Teacher will show the cards 38 and 47 then he will stick them on the flannel board and asks the students "Which one of the boy seems to follow proper rules after open defecation?" Finally teacher will explain each of the rules to be followed while defecating in the open.	3.a Students name the rules to be followed when they go for open defecation 3 b Students explain that excreta should be covered to avoid bad smells and others getting sick.	5 minutes
4 If we cover the excreta with soil, it will have many advantages, such as: the environment does not look dirty, there won't be bad smells, it does not attract flies (if we did not cover the excreta the flies can spread the diseases by sitting on it and carrying organism on their feet and again sitting on the food)  (The food is uncovered) - If we consume such food we will get sick like the man shown in the picture 11	Cards 33, 36 & 42 flannel board (if available)	4. Teacher will ask the students to name the advantages of covering the excreta with soil after defecation in the open places (if they can). Then teacher will show the card 38 by holding it on the hand and ask the student "Do you recognize this picture?" After the responses, teacher will make the students clear about how the fly transmit diseases after sitting on the dirty place and coming to our food. Teacher shows the cards 36 and 42 one by one and explain the students that the fly sits on our food and spreads the pathogenic organisms there. Then, the teacher will explain each of the advantages of covering the excreta after defecation at open places	4 a Students say how the fly spreads diseases. b Students name the advantages of covering the excreta after open defecation.	5 minutes
5 (Subjects for teaching 3+4)	One jute bag, one plastic bag bag full of soil, soap, water and towel	5 Teacher puts the jute bag on the floor and invites one student and asks him to demonstrate open defecation without putting off the clothes by acting He asks the student to act as if he is covering the excreta with soil After the acting teacher will ask other students to give their comments. Teacher will ask other students to put the soil again into plastic bags and wash their hands with soap and water	5 a Student demonstrate open defecation following proper rules by acting. b Students give their comments on the acting	10 minutes

Note Teaching activities No. 1 and 4 can be demonstrated in the school ground or courtyard too, in doing so, teacher asks the students to sit in a semicircle and watch the actings



**SUBJECT : HEALTH EDUCATION**

**UNIT 2 : ENVIRONMENTAL SANITATION**

**Sub-Unit 3: Water**

**Grade II**

**Lesson 1 : Uses of water**

**Objectives** . At the end of this lesson, students will be able to:

**Knowledge:**

- a) explain what is water used for in home
- b) explain the importance of water in personal hygiene and health
- c) explain how water can be contaminated

**This lesson also helps the students to develop the following attitudes.**

**Attitude:**

- a) appreciate clean water

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 In home, water is used in the following ways  - drink and cook - clean pots and homes - bath and wash clothes - irrigate - serve to cattle	Glass, water, chalk, duster	1 The teacher shows a glass of water and asks what is water used for in their homes. Then he will write the responses on the board and he will discuss the uses of water in homes.	1 The students will explain the uses of water in their homes	10 minutes
2. Water is very important for our health and personal hygiene. We should not contaminate the water. Water can be contaminated by waste and by excreta disposal. After breathing, drinking is the second important activity we have to do in order to survive.	Game No. 11, 12 in the book "My World" scissors, glue	2 Teacher distributes the Game No. 11 + 12 and asks children to cut out the circle of Picture No. 11 and paste these on the picture No. 12 which contain contaminating activities. Teacher asks the students to explain the water contaminating activity before pasting.	2 Students identify contaminating activities and paste the concerning circle on the drawing.	20 minutes
3 Similarly we should not contaminate the water we collected and stored in a container, using dirty pots, inserting dirty hands, leaving it open to dust and insects. Contaminated water can make us sick.	Not needed	3 Teacher asks where children get their water from and how they store it. Teacher asks for the danger how this water can be contaminated.	3 Students describe where they get their water from and how they store it at home.	10 minutes





**SUBJECT : HEALTH EDUCATION**  
**UNIT 2 : ENVIRONMENTAL SANITATION**  
**Sub-Unit 3: Water**

Grade II

Lesson 2 : Methods of preserving water

Objectives At the end of this lesson, students will be able to:

Knowledge. a) list the methods of preserving water in home  
 b) explain the importance of using water economically

Skills: a) use water conscientiously

This lesson also helps the students to develop the following attitudes.

Attitude: a) aware of using water properly

A. Subject for Teaching	B. Material Needed	C Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Water can be preserved in homes in the following ways - covering water pots/jars - using clean pots - not touching by dirty hands - taking water from only safe sources	Chalk, duster	1 The teacher will ask for the causes of water contamination then he will ask this question  - What should we do to keep water safe?  The teacher will collect the responses and explain the ways of preserving water  If students are fast, they should copy the answers or just repeat several times.	1 Students name the ways of preserving water	10 minutes
2 Water should be used conscientiously which means as little as possible and not contaminating water sources. Water level in reservoir reduces, if we use too much water		2 The teacher will ask some questions to the students, as where do they get water, is there a tap in their home? After collecting responses from the students he will explain that water should be used conscientiously	2. The students will explain that water should be used economically + with care. It should not be polluted	10 minutes
3 While using soap in cleaning and washing activities, water tap should be closed	Water, soap, towel, bucket, mug and bowl	3 The teacher will take students outside the class to demonstrate how water is used conscientiously in washing hands and feet. He will also let the students wash their hands *	3 The students will wash their hands using water conscientiously	20 minutes

Note \* If it is not possible, teacher + students should demonstrate in role play



**SUBJECT: HEALTH EDUCATION**  
**UNIT 4. COMMUNICABLE DISEASES**

**Grade II**

**Lesson 1. Introduction to Communicable Diseases**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) explain what a communicable disease is
- b) list some of the communicable diseases.
- c) describe preventive measures against communicable diseases.

**Skills:**

- a) wash their hands and cut their finger nails.

This lesson also helps the students to develop the following attitudes.

**Attitudes:**

- a) realize hygienic behavior is the main measure for preventing communicable diseases.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Communicable diseases are those that spread from one person to another. These diseases are caused by germs.	Chalk, duster and black board	1 Let the students explain what is a communicable disease. The teacher will summarize the ideas given by the students.	1 Students will explain that communicable diseases are those that spread from one person to another.	5 minutes
2 Some common communicable diseases are dysentery, cough, cold, lice infestation, round worms and diarrhoea. In the same way non-communicable diseases are diabetes, cancer, etc.	Chalk, duster and black board	2 The teacher will ask the students about whether they have ever suffered from any communicable diseases and what they are. Responses of the students will be written on the board. Teacher will add the diseases under subject for teaching, if necessary.	2 Students will name some communicable diseases.	10 minutes
3 Most of the communicable diseases are transmitted through our hands, food, water, insects, soil and having direct contact with the patients.	Picture 33, 36	3 Teacher will show some pictures to explain them how some diseases are transmitted. Then he/she lets the students describe how communicable diseases are transmitted.	3 Students will describe that communicable diseases are transmitted through dirty hands, food, water, soil, insects and having direct contact with the patient.	10 minutes
4 Most of the preventive measures to communicable diseases are hygienic behavior. They are as follows. hands should be washed frequently, hair should be combed and washed, nails should be made short, etc.	Water, soap, nail cutter, pots, and towel	4 The teacher will check all the students to find whether they have dirty hands & long nails. Then he will explain how diseases are prevented. Finally he will demonstrate how to wash hands and cut nails. Teacher will ask the other students to do the same and show their hands and nails in the next class.	4 The students will explain why they should wash their hands & hair. Some of them will demonstrate how to cut their nails and how to wash their hands.	15 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

**Grade II**

**Lesson 2: Roundworm, common cold**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge**

- a) explain what roundworms are
- b) explain the symptoms of roundworm
- c) explain how roundworm is transmitted
- d) explain the symptoms of a common cold and cough
- e) explain how to prevent a common cold and cough

This lesson also helps the student to develop following attitudes.

**Attitudes**

- a) realize the importance of using a latrine to prevent roundworms

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Roundworms are giant intestinal parasites found in almost all countries. They are off-white or pink in colour.	Chalk, duster and black-board	1 Teacher will ask the students some questions about whether they have ever suffered from roundworms and what they look like. The teacher will then explain what roundworms are.	1 Students will explain that roundworms are parasites and they are pink in colour.	5 minutes
2 Roundworms caused indigestion, weakness, sleepless and discomfort in the intestines.	Chalk, duster and black-board	2 Let the students explain the symptoms of roundworm. The teacher will write their responses on the blackboard to remind them.	2 Indigestion, weakness and discomfort in the intestines are the symptoms of roundworm.	5 minutes
3 Eggs produced by worms are passed in the stool. People with long finger nails and dirty hands get roundworms very easily because the eggs may stick under the finger nails or on our hands. If we swallow eggs from worms these eggs will hatch and will affect our health.	Cards 33 + 35	3 The teacher will show the cards 33 + 35 so that the students will understand how worms are transmitted. Dirty hands and flies are means of contacting sources of germs (piles of waste).	3 The students will realize that roundworms are transmitted by thoughtless and dirty habits.	10 minutes
4 Preventive measures for roundworms are washing hands before eating and after bowel movements, keeping finger nails short, using latrines and avoiding raw vegetables that haven't been cleaned.	Water, soap, nail cutter and pots	4 The teacher will check the students' hands and any student with dirty hands and finger nails will be separated. The teacher will demonstrate how to wash hands and how to keep the nails short.	4 The students will explain how to cut their nails and how to keep their hands clean.	10 minutes
5 If we suspect we have round worms stools should be checked and medicine should be taken.	Chalk, duster and black-board	5 The teacher will ask what should we do if we have worms. Finally he will summarize the control measures.	5 They will explain that stools should be checked and medicine should be taken.	5 minutes
6 Having a common cold, the nose is running and we feel miserable. To prevent common cold we should dress warm enough and stay away from people who have common colds.	No materials needed	6 Teacher asks how many children have had a common cold. Students are asked to describe how they feel then. He/she asks how we should try to prevent a common cold.	6 Students name symptoms of having a common cold. They name ways to prevent getting a common cold.	5 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

**Grade II**

**Lesson 3: Diarrhoea and dysentery**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) define diarrhoea
- b) explain that diarrhoea and dysentery causes dehydration
- c) discuss preventive & control measures against diarrhoea / dysentery

**Skills:**

- a) demonstrate the methods of preparing salt, sugar, and water.
- b) protect food and water covering water and food container.

This lesson also helps the students to develop the following attitudes.

**Attributes:**

- a) realize the need of 'Jeevan Jal' or rehydrating solution and liquid diets while getting diarrhoea
- b) realize that having dysentery a doctor or health worker should be consulted.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D Learning Outcome	E. Estimated Time
1 When a person has loose or watery stools, he has diarrhoea. If mucus and blood can be seen in the stool he has dysentery	Pictures 42	1 Teacher will show the card 42 and will ask students what it is. Their responses will be discussed.	1 Students will define diarrhoea and dysentery	5 minutes
2 Diarrhoea causes dehydration, weakness and malnutrition. Dysentery causes abdominal pains and repeated diarrhoea.	Chalk, poster and black board	2 Teacher will ask students what do they feel when they have diarrhoea, and what when they had dysentery	2 They will explain the symptoms of diarrhoea and dysentery	5 minutes
3 Causes of diarrhoea and dysentery are only due to non hygienic behavior and poor nutrition. If we do not dispose waste properly it can also transmit dysentery. Food, water, flies and dirty hands are responsible to transmit these diseases	Pictures 33/35 and 36]	3 Teacher will show the pictures 33/35/36 in sequence. Then he will ask what will happen if food is not covered, hands are dirty, flies are existing and disposals are not properly done. Finally he will explain how diarrhoea/dysentery is transmitted	3 Students will explain that diarrhoea/dysentery is transmitted through dirty hands contaminated food, water and waste	10 minutes
4 Sanitary behaviors such as washing hands, covering food and water, should be followed and a balanced diet such as varieties of food groups should be taken to prevent these diseases. The use of latrines also prevents diarrhoea and dysentery	Pictures 44,46 and 47	4 The teacher will break the disease transmitting process of No 3 activities by replacing some of the pictures. For example 36 is replaced by 44, 37 is replaced by 46, 43 will be replaced by 47 and she/he will ask what will happen if we replace the picture. In conclusion, he will explain the preventive measures against diarrhoea/dysentery	4 Students will realize the hygienic behaviors which are responsible for preventing diarrhoea and dysentery	10 minutes
5 Diarrhoea causes dehydration so large amount of water with sugar should be given. 3 glasses of water, 4 finger scoop of sugar and 3 finger pinch of salt should be mixed or Jeevan Jal should be prepared. If we suffer from dysentery a doctor/health worker should be consulted.	Salt, sugar, water, jar and picture 49 Jeevan Jal	5 First the teacher will show the card 49 and explain it. The she/he will demonstrate the mixture students will taste it. Finally he will explain the reasons of giving rehydrating drink. Teacher will ask what to do if we have dysentery. He/she explains if needed	5 Students will observe how rehydrating drink is prepared and they will taste it	10 minutes





### 3.5 LESSON PLANS GRADE III

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**SUBJECT:****UNIT 4:****Grade III**

**Lesson 1:** Clean environment in the school and its surroundings.

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge.** a) explain what the solid waste consist of at our home school and in the direct neighbourhood.

This lesson will also help the students to develop following attitudes.

**Attitudes:**

- a) become curious about one's own school environment
- b) enjoy being an important part of the environment and feeling responsible for it.
- c) experience one's active involvement in the school.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 The book is directed to all children of different ethnic groups and different surroundings in the urban areas of Nepal. (Teacher's guide to the book page 3-5)	Books "My World", page 3-6, (Introduction)	1 Teacher distributes the books, forms groups of 5-7 students and lets the children look through page 3-6 and read the text to one another. And the teacher helps if needed. (group-work)	1. Students read the text and look at the different pictures with interest.	10 minutes
2 In the book we will experience different emotions.	See above page 4	2 Children are asked to read to the whole class page 3-6. They are asked to tell their friends what they've seen.	2. Students read the text and look at the different emotions shown in the pictures.	5 minutes
3. We are all a part of our environment, which means we can enjoy it and also have responsibilities to make it beautiful (Manual: Guide to the book page 3-5)	See above page 6.	3 Children are asked to read page 6 and comment on the meaning of this page. Teacher explains if necessary	3. Students read and look at the pictures attentively. b. Students identify themselves as one part of the environment as shown in the pictures.	8 minutes
4. Being part of our school neighbourhood implies a concern for it and to act in a responsible way	No material needed	4 Teacher asks what our obligations are at school, and its direct neighbourhood. If they do not mention taking care of our waste the teacher should mention it	4. Students explain that they have the responsibilities to make their home, school and its direct neighbourhood clean and pleasant.	8 minutes
5 We throw away the things which seem worthless to us like leftovers from foods, from shopping and from working	Blackboard and chalk	5 Children are asked to name waste items. Teacher writes them onto the blackboard under "leftovers" Children are asked to copy the list.	5 Students name and copy the different waste items	11 minutes

**Homework 1** Children are invited to complete the list of waste-items, which they see at home, at school and its direct neighbourhood



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade III**

**Lesson 2. Investigation of dirty environment in the school**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) name the different places in the school and its immediate surroundings.
- b) name the different reasons which makes the school and its immediate neighbourhood environment dirty.
- c) name the harms due to dirty environment in the school and its immediate neighbourhood.

**Skills:**

- a) observe and identify the dirty places in the school.
- b) conduct survey to find out the reasons of dirty environment.

This lesson will also help the students to develop following attitudes.

**Attitudes:**

- a) be eager to keep the school and its surrounding environment clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 The school and its immediate neighbourhood means the school and its close neighbouring places like courtyard playing grounds, houses, shops, roads in front of the school or around the school. We should keep the environment of these places clean because we walk, play and live in the school environment almost the whole day. In addition to this we also eat food which are being sold in these places	Chalk, duster, and board	1 a Teacher will ask the students 'What are the different places in the school and its close surrounding places like on the left, right, front and behind the school  1 b Teacher asks the students whether they consider the school clean or dirty	1 a Students will name different places which are situated in the front, left, right, and on the behind of the school  1 b The students will give their opinion on the cleanliness of their school	5 minutes
2 The reasons of dirty environment in the school and its surrounding neighbourhood are as follows  a) by dumping or carelessly throwing the wastes or not properly disposing it in the basket or any waste container at the school or in the container placed by the Solid Waste Management and Resource Mobilization Centre at the nearby place  b) by defecating carelessly in the school and its surrounding places	Card No 10	2. Teacher shows card No. 10 to the children and asks them to comment on the picture. Teacher will ask the students to get to the left, right, front and behind the school premises and find out dirty places (if any), teacher will also ask them to find out the reasons of dirtiness in these places. Teacher accompanies them through all areas inside and outside the school premises	2 Students observe dirty places in the school and the direct surrounding. They investigate why these places become dirty	25 minutes
3 (As in above in no 2)	Chalk, duster and board	3 After coming back the teacher will ask them what they have identified and what are the materials they saw in dirty environment. The students will name the reasons for dirty environment. The teacher completes if necessary	3 a Students name the dirty places which they have identified in the school premises.  3 b Students name the possible reasons for dirty environment	10 minutes





**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

**Grade III**

**Lesson 3** Responsibilities to keep the school and its surrounding environment clean.

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge.**

- a) express that we are the ones who are responsible for the waste, because we produce it.  
 b) name harms from improper waste disposal in the homes, school and its direct neighbourhood.

**Skills:**

- a) help in organising proper waste disposal in the school and its direct neighbourhood

This lesson also helps the students to develop following attitudes.

**Attitudes:**

- a) become curious about detecting the harms of improper waste disposal in the school and its direct neighbourhood.  
 b) feel a sense of active involvement in solving the waste problems in the school and its direct neighbourhood

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 The throw away leftovers can be glass, plastic, tins, paper, vegetable and dead animal matter etc		1 Teacher asks to name the list of leftovers which they observed in their neighbourhood, each child adds to the list what is missing. Teacher also writes on the blackboard	1 Students complete the list of leftovers	10 minutes
2 Waste which is thrown away improperly harms us in many ways - unpleasant school environment - bad smell and view - makes us idle - may cause accidents	Blackboard and chalk	2 Teacher asks the students what the consequences are if waste is dumped in the street. Teacher writes them onto the blackboard with the title "Harms from Improper waste-disposal" If needed teacher helps. He asks Who is responsible to clean the waste thrown by us?	2 a) Students name harms from improper waste-disposal 2 b) Students say that they are responsible to clean the waste thrown by them.	10 minutes
3 Our school and its direct neighbourhood often are not clean. It is our responsibility to keep them clean.	No material needed	3 Teacher asks to describe the level of cleanliness of their school and its direct neighbourhood. The teacher asks the children how the school environment can be kept clean. The children are asked to think more ideas in their home.	3. Students describe the level of cleanliness of their school neighbourhood	5 minutes
4 A clean courtyard can have bright, clear colours. a dirty courtyard dark grey and brown colours	Pictures of courtyard a - clear colour b - dirty, like grey dark colour  Games, No. 4+5	4 Pictures of courtyards are distributed to the students, half of the students receive the picture of a clean courtyard and half the picture of the dirty courtyard. The teacher gives them the colours, discussing about how to use them. Then the students are asked to colour them.	4 Students choose the appropriate colours for a clean courtyard and a dirty courtyard	15 minutes



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL CONTAMINATION**

Grade III

**Lesson 4 Clean Environment**

**Objectives.** At the end of this lesson, students will be able to.

**Knowledge:**

- a) name and list advantages of a clean school environment.
- b) name ways of keeping the school environment clean.

**Skills:**

- a) practice the activities of keeping the school and its immediate neighbourhood clean.

This lesson also helps the students to develop following attitudes.

**Attitudes:**

- a) be aware of keeping the school and its neighbourhood environment clean.
- b) feel a sense of responsibility in keeping the school environment clean.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 If we keep the school and its immediate neighbourhood clean, we will have following advantages</p> <ol style="list-style-type: none"> <li>a) Looks clean - in clean environment there won't be flies, insects, pathogenic organism, rats etc There won't be any chances of getting sickness and having accidents (by slipping) in such clean environment.</li> <li>b) Pleasant - clean environment looks pleasant. We like to live, read and play in such environment. We will be happy in such environment</li> <li>c) Beautiful clean environment looks beautiful. There won't be any bad smells. Every one likes such places</li> </ol>	<p>Chalk, duster, board, flannel board</p> <p>Picture of clean and dirty courtyard</p>	<p>1 Teacher will show the coloured pictures of a clean and a dirty courtyard and ask the students to recall the harms due to dirty environment (revision from the previous class) After the responses from students teacher will ask the students to tell whether the environment shown in the picture is clean or dirty After getting the answer from the students the teacher will ask the students "Whether there will be such harms in the clean environment or not?" Teacher will ask the students to list the advantages of the clean environment. If necessary teacher will also add the advantages and write them on the board</p>	<ol style="list-style-type: none"> <li>1 a Students list the advantages of clean environment</li> <li>1 b Students discuss the consequences of throwing away solid waste at home improperly</li> </ol>	<p>10 minutes</p>
<p>2 We can keep our school and its immediate neighbourhood clean by different ways, such as</p> <p>By not throwing the wastes carelessly every where but putting it into the waste basket kept in the school or using the container placed by the Solid Waste Management and Resource Mobilization Centre</p>	<p>Chalk, duster, board, some wastes like paper and others (which are easily available in the school like dust which comes during sharpening the pencil etc )</p>	<p>2 Teacher will ask 2/3 students to collect the wastes kept on his table in the paper and put it into the waste basket After their returning teacher will ask them whether they have put it into the waste basket or not Finally, teacher will explain the students that they should not throw the waste carelessly everywhere Instead they should put it into the waste basket.</p>	<ol style="list-style-type: none"> <li>2.a Students express that one way of keeping the environment clean is to keep the wastes in waste basket in the school</li> <li>2 b Students put the waste in the waste baskets</li> </ol>	<p>5 minutes</p>
<p>3 We are also responsible for keeping the school and its immediate neighbourhood environment clean We can do this job by co-operating each other</p>	<p>Card 15</p>	<p>3 Teacher will hold up the picture 15 and ask the question to the students "What are the people doing there?" Finally, teacher will explain to students that if we co-operate each other and work together as well as feel the responsibility, we can keep the school and its immediate neighbourhood environment clean</p> <p>Students are asked to go out into the courtyard and start cleaning Teacher accompanies them and also assists Teacher asks them to wash their hands properly</p>	<ol style="list-style-type: none"> <li>3 a Students say they are also responsible to keep the school and its immediate neighbourhood clean</li> <li>3 b Students express the view that all of them should co-operate and work together in order to keep the school and its immediate neighbourhood clean</li> <li>3 c Students cooperate in cleaning the school and its immediate neighbourhood</li> </ol>	<p>25 minutes</p>



SUBJECT : HEALTH EDUCATION

UNIT 1 : PERSONAL HYGIENE

Grade III

Lesson 1 Effects of the dirty body

Objectives At the end of this lesson, students will be able to

Knowledge a) discuss the effects of poor personal hygiene  
b) name rules for personal hygiene

Skill a) observe personal cleanliness and distinguish clean and dirty hand, feet, face and body

This lesson also helps the students to develop the following attitudes

Attitudes a) appreciate clean hands, feet, face and body

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D Learning Outcome	E. Estimated Time
1 Personal hygiene helps to keep us healthy Our face looks clean and happy If we do not clean our body we will be easily unhealthy	Cards No 50, 42 and flannel board (if available)	1 The teacher will show picture No 42 & 50 to the class and will fix them on the flannel board, if there is one The he will ask the following questions - which one looks healthy and happy? - why does picture 42 not look healthy? - one of them did not was himself properly, who?  He/she will conclude that the girl, on picture 50, who leans her body, face, feet + hands, is healthy	1 a Students are able to distinguish between a healthy and an unhealthy looking face. 1 b Students explain that the consequences of being dirty can easily be sickness 1 c Students explain that the consequences of keeping oneself clean is to avoid getting sick.	10 minutes
2. If we do not follow the rules of personal hygiene it may affect as follows  It looks dirty, causes itching, pimples are seen, it may cause diseases, bad smells. We might get infested by lice.		2 a The teacher asks what are the effects of being dirty How does it look, feel, smell? What about diseases? Important points will be written on the board  2.b Teacher reads the writings on the board and lets them discuss the meanings of the points with the help of question-answer method	2 a Students name the effects of dirty habits  2 b Student name the effects of having dirty hands, legs, face and body	10 minutes
3. Clean hands, feet and face look nice and dirty hands, feet and face look nasty		3 a The teacher will show his hand which has chalk dust and show his face and feet and ask students whether they are clean or not.  3 b Students will be asked to check their partners to distinguish whether or not they have clean hands, feet, face and body The teacher will also observe the students and will praise those who have a clean body He/she will end the lesson by informing them to practice cleaning their bodies before the next lesson	3 a The students say that the teacher's hand is dirty and feet and face are clean.  3 b Students observe and distinguish whether or not they have clean hands, face and bodies	7 minutes
4 Rules of personal hygiene - hands face and feet should be washed before sleeping - after defecation, before eating, whenever we touch dirt, we should wash - bath should be taken at least once a week - fingers should be kept out of the face	Not needed	4 Teacher asks about some rules for personal hygiene When should we wash our hands, feet, face and body Teacher will write the answers onto the blackboard and complete them if necessary Children will repeat the rules	4 Students name rules for personal hygiene	13 minutes

Note Students will be informed to bring their own towel and comb, if they are interested in washing themselves in the next class (optional)



**SUBJECT: HEALTH HYGIENE**  
**Unit 1: PERSONAL HYGIENE**

**Grade III**

**Lesson 2: Methods of cleaning body**

**Objectives** At the end of this lesson, students will be able to:

**Knowledge:** a. explain one way of cleaning body is to take a bath (soap water)

**Skill:** a. demonstrate the methods of cleaning hands, feet, face and other parts of the body

This lesson will also help students to develop the following attitudes

**Attitudes:** a. enjoy cleaning themselves

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 We should use soap water to take bath		1 The teacher will revise the previous lesson that dirty body effects our body He will ask some questions i e what should we do to clean our body. What should we use? How should we clean? Finally, he will collect their responses and say that soap water should be used in bath to clean the body	The students will respond we should take bath to clean our body we should use soap water	3 minutes
2. Hands and feet can be properly cleaned with soap water then face should be cleaned	Soap, water, towel, mug, bucket and bowl	2. The teacher will form the students in semicircle and demonstrate how to clean hands, feet and face. He will ask students to describe what he/she did	Students describe how face, feet and hand can be cleaned	3 minutes
3. Clean hand, feet and face look nice and dirty hands, feet and face look nasty	Soap, water, towel, mug, bucket and bowl.	3 a The teacher will show his hand which has chalk dust and show his face and feet and ask students whether they are clean or not  3.b. Students will be asked to check their partners to distinguish whether or not they have clean hands, feet, face and body The teacher will also observe the students and will praise those who have clean body He will end the lesson by informing them to practice cleaning their bodies before the next lesson.	The students say that the teacher's hand is dirty and feet and face are clean  Students observe and distinguish whether or not they have clean hands, face and bodies.	7 minutes
4. Rules of personal hygiene - hands, face and feet should be washed before sleeping - after defecation before eating whenever we touch dirty, we should wash - bath should be taken at least once a week - fingers should be kept out of the face	Not needed	4 Teacher asks about some rules for personal hygiene. When should we wash our hands, feet face and body Teacher will write the answers on the blackboard and complete them if necessary Children will repeat the rules	Students name rules for personal hygiene.	15 minutes

Note. Students will be informed, to bring their own towel and comb, if they are interested in washing themselves in the next class (optional).





**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

**Grade III**

**Lesson 1: Reducing the waste**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) name reasons and ways to classify leftovers
- b) explain the ways to reduce waste

This lesson also helps the students to develop the following attitudes.

**Attitudes:**

- a) be eager about detecting the harms of improper waste-disposal in the school and its direct neighbourhood.
- b) become curious and creative in finding ways how to avoid the production of wastes.
- c) enjoy active involvement in solving the waste problems in the neighbourhood

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 A clean courtyard is clean &amp; bright where a dirty courtyard is unpleasant and unhealthy. Therefore waste should be kept in the containers.</p> <p>Note * If the courtyard pictures are not yet coloured, the teacher should colour them.</p>	coloured pictures of two courtyard (games coloured by the teacher No. 4+5)	<p>1 The teacher shows the coloured pictures of a clean and dirty courtyard from the backpocket of the book and asks the children to compare between them. The teacher also asks where the leftovers should be thrown. The teacher helps them on the basis of their answers.</p>	<p>1 a Children relate colours to a clean and to a dirty courtyards</p> <p>1 b Student say that waste should not be thrown away indiscriminately, it should be disposed in the container</p>	5-7 minutes
<p>2 If the leftovers are all kept in the same place, it is difficult to reuse valuable waste from it. The leftovers, therefore, should be separated according to their natures (See Manual teacher's guide page 7/8)</p>	"My world", "Meeting in the container" page 22-29	<p>2 The teacher distributes the books to the children and asks them to read the story. The teacher discusses with the students about the story so that they understand the story well. He then asks the children</p> <ol style="list-style-type: none"> <li>a) why should all leftovers material not be stored together</li> <li>b) which better solution can be found</li> </ol>	<p>2. Children give reasons why waste should be separated</p>	25 minutes
<p>3 Waste production can be reduced</p> <ul style="list-style-type: none"> <li>- if we buy less potential waste</li> <li>- if we make a compost of organic matters</li> <li>if we reuse/ recycle inorganic materials</li> </ul>	not necessary	<p>3 Children are asked to discuss on how the waste can be reduced. The teacher explains the ways of reducing waste production as we can buy less potential waste, making compost of organic matter and reuse/recycle the inorganic materials etc.</p>	<p>3. Children name ways how to reduce waste productivity</p>	8-10 minutes
<p>4 Home work            Reflect</p> <ol style="list-style-type: none"> <li>a) What can go onto a compost?</li> <li>b) How can we reduce the waste production in our home school and its direct neighbourhood</li> </ol>				



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-Unit 1: Solid Waste**

**Grade III**

**Lesson 2: Classification of waste**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:** a) explain the activities of the Solid Waste Management and Resource Mobilization Centre

**Skills:** a) classify the waste materials

This lesson also helps the students to develop the following attitudes.

**Attitudes:** a) enjoy the active involvement in solving the waste problems in the school and its direct neighbourhood  
 b) become curious about the Center for Solid Waste Management of wastes  
 c) enjoy active involvement in solving the waste problems in the neighbourhood

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. Leftovers which can be used for composting derive from organic matter. Organic matter come from the earth and therefore should go back to it.	Blackboard, chalk	1. Teacher asks in which way they can reduce the waste production at home. Teacher asks the children to name leftovers which can be composted and writes them onto the blackboard. Children copy into their exercise - books.	1. Students name and write down leftovers which can be used for composting	10 minutes
2. We are responsible for our own waste and have to cooperate in keeping our school environment clean.	Broom, shovel, basket.	2. Teacher chooses some responsible children for keeping the classroom clean, everyday they should participate to help. He demonstrates a broom, a shovel and a basket and lets some children start to clean. Teacher says that other students should also help them (After one week teacher gives the responsibilities to other students)	2. Students accept their responsibility, start cleaning the classroom. They cooperate each other in this responsibility	15 minutes
3. The local waste management has several functions: - providing waste container - driving the containers out to the landfill-site	Card of waste containers in the streets (46)	3. The teacher shows the pictures of the containers and asks them questions like, what are these for? who keeps these in the street and why? Can you describe the content? what can we make from those leftovers if we reused them? etc. In this way the teacher explains the functions of Solid Waste Centre to the students	3.1 Children explain the function of containers and describe the contents 3.2 Students name the functions of Solid Waste Management Centre.	15 minutes
4. Home work 1) Children are asked to bring some organic leftovers from their kitchen. Teacher should encourage children to collect those leftovers, wrap them and bring them. Teacher could ask, if children see problems in bringing leftovers 2) List the waste materials that can be recycled/reused, which cannot go into the compost				



**SUBJECT:** HEALTH EDUCATION  
**UNIT 2:** ENVIRONMENTAL SANITATION  
**Sub-Unit 1:** Solid Waste

**Grade III**

**Lesson 3 Organic/inorganic wastes**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge.**

- a) name the organic leftovers which can be used for making compost
- b) name inorganic leftovers which can be recycled

**Skills:**

- a) separate organic leftovers from the other waste

This lesson also helps the student to develop the following attitudes.

**Attitudes:**

- a) enjoy the active involvement in solving the problem of organic waste in the neighbourhood
- b) become curious about how to make compost
- c) enjoy starting to make compost

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Organic leftovers come from vegetable or animal matter, they should not be wasted. Compost can only be prepared with material which once came from the earth and will turn into earth again. Manufactured items like plastic, glass etc. cannot be used for composting.	Organic leftovers brought by the students and by the teacher	1 Teacher comments on the homework (waste materials) which he/she collected. He/she asks questions like what kinds of materials did you bring; what we can make out of these. From where these materials come from? etc. If there were mistakes he/she asks children to explain again what organic leftovers are. The teacher, if needed, explains from which material we can make compost and from which it cannot be made, the teacher should clearly explain these topics.	1 Students list the organic material from which compost can be made.	5 minutes
2. Inorganic leftovers which can be recycled. - glass - paper - tins - cartons - plastic etc	Blackboard chalk exercise-book pencil	2. Teacher asks to name leftovers which can be used again. He calls them "inorganic leftovers which can be recycled". He explains what that means and writes it onto the blackboard. Children copy into their exercise book.	2.a Students name the inorganic materials which can be recycled  2.b Students copy the list into their exercise book.	10 minutes
3 If organic leftovers are separated, they can be used for compost production.	Basket with green mark - organic leftovers	3. Teacher shows a basket with a green mark and asks the children to place their organic leftovers into the basket. Each amount they are putting in, teacher asks the whole class, if this is really organic, if this really comes from the earth	3. Children put exclusively organic leftovers into the green basket.	10 minutes
4 Organic matter should be piled up and covered with some dry leaves, grass or soil. The transformation of organic matter into compost needs heat which is being produced in the process of decomposition.	- Green basket with organic leftovers - a mat - if raining a plastic - soap, water towel etc	4 Children are invited to take the green basket down to the courtyard, where a compost pile can be started. They are asked to empty the basket. They cover it with grass or soil. Teacher covers it with a mat and a plastic. The children are asked to collect organic matter always in the green basket. He asked five responsible children to put the contents of the green basket everyday onto the compost pile. Then they are asked to cover it. They wash their hands	4 Children empty the organic material and form a compost pile  4.1 Students follow the procedure of making the compost.  4.2 Students wash their hands properly.	15 minutes



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**Grade III**

**Lesson 4: Compost making**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) explain the procedures of making compost
- b) name the advantages of compost production
- c) name the consequences of dumping organic leftovers carelessly

**Skills:**

- a) separate organic leftovers from other leftovers
- b) start to make compost in the school

This lesson also helps the students to develop the following attitudes

**Attitudes:**

- a) feel a sense of active involvement in solving the waste production in the neighbourhood
- b) become curious about how to produce compost
- c) feel responsible for solving the waste problems in school and its direct neighbourhood

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 If we could separated organic materials from other waste and prepare compost from it we can keep our environment clean	No material needed.	1 Teacher asks some questions to the children to revise the previous lesson, like, how can we keep our school clean? What can go onto compost? Why do we classify waste items? etc	1 Students comment on the cleanliness of the classrooms and the school and on the ways of cooperation	5 minutes
2 In the close neighbourhood there might be a place in the courtyard, garden, etc, where a compost pile can be started which the neighbourhood can use	No material needed.	2 Teacher asks for the possibility to start a compost in school or the direct neighbourhood And the teacher explains that compost production can be started in the direct neighbourhood and the school if there is an adequate place.	2. Students name the places where composting can be started	5 minutes
3 Organic leftovers which are composted serve the earth as a very good fertilizer They always should go back to the earth (see Manual Teacher's guide page 8/9)	The books My world "Every thing that comes from the earth should go back to the earth" page 30 - 32	3 Teacher distributes and asks to read the text of "Everything that comes from the earth should go back to the earth" taking turns to the whole class The teacher could form groups where one is reading in a low voice and all discuss	3 Children read and discuss in groups	15 minutes
4 To take compost you need to pile up organic leftovers cover them if the pile is small, sprinkle water if it is dry turn it in every 7 days and it transforms into compost. (good, rich soil) in about two months		4 Teacher asks the children to repeat what they read to the whole class Some repeat each step of compost production	4 Students explain the steps for making compost.	6 minutes
5 The compost can be used for growing vegetables, flowers and trees	- bag of soil - a bag of compost - seeds - tins - water, soap	5 The teacher shows them some tins, a bag of compost and some seeds and asks some children to come in front, mix some soil & compost and put it into the tins, others put the seeds, others sprinkle some water.  They wash their hands.	5 a Children mix soil+compost and plant a seed into it.  5 b Students follow the procedure correctly They wash their hands.	9 minutes
6 Home work. a Write the steps for making compost into your exercise-book b Children should bring inorganic leftovers like paper, plastic and maybe glass				





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**Lesson 5: Reusing of the leftovers**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a. explain how waste can be reduced
- b. name ways of reusing leftovers which consist in our school and its direct neighbourhood

**Skills:**

- a. organize themselves for proper waste disposal in the school and its direct neighbourhood

This lesson also helps the students to develop the following attitudes.

**Attitudes:**

- a. realize a sense of own responsibility for solving the waste problem in the school and its direct environment
- b. become curious about reusing/recycling some of the leftovers

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. The classroom can be kept clean, if everybody participates in putting the waste into the basket.	No material needed	1. Teacher asks the students questions like how the classroom can be kept clean? He/she also asks them what they did in the previous lesson. Children report what they did to start a compost production.	1 a. Students explain the ways of keeping the classroom clean. b. Students explain the procedure for making a compost.	5 minutes
2. Waste can be reduced to a minimum if you separate most of it, like paper, glass, some plastic & inorganic material, in order to recycle it. (See Manual, Guide to the book page 9)	The books: My world "The Mystery Gang", page 33 - 41 Chalk, Duster and Board.	2. Teacher distributes the book according to the number of the students and asks them to read the story of "The Mystery Gang". If students cannot read, the teacher will help them. After the students read the story, the teacher will clarify it by asking different questions. How they separated the leftovers in the story? What are the different materials from which compost can be made? What are those materials from which we cannot make compost and which can be reused or recycled etc. The teacher will write the answers on the blackboard. He will write the list of different material in separate headings like 'Organic materials from which we can make compost' and 'Reusable or Inorganic materials'.	2.a. Children read and describe each scene of the story: The Mystery Gang. 2 b. Students name the ways to reduce the wastes. 2 c. Students give the list of organic and inorganic leftovers.	25 minutes
3. Used paper can be recycled and used again.  Broken glass can be recycled and used again etc. Even plastic can be recycled.	Blackboard with list of inorganic material	3. Teacher will show the list of inorganic materials written on the board and he/she will explain by questioning the students. Among those materials which can be reused or recycled. Then he explains the students that old paper can be recycled to make new one and glasses can also be recycled to make a new glasses.	3. Children name leftovers and find possible ways for recycling.	5 minutes
4. We can make new things from inorganic material and we can make new paper out of used paper by ourselves.	Red basket with old papers, yellow basket with inorganic materials, we cannot recycle	4. Teacher shows the basket with the red mark and lets children put in the inorganic leftovers which can be recycled, the rest goes into the yellow basket. Children always say how it can be reused, before they put it into the basket. The contents of the yellow basket should be put into the waste container, the contents of the red basket should be kept for recycling.	4. Children put inorganic recyclable leftovers into the red basket.	5 minutes
Homework: In the next class, bring the list of inorganic materials and also write the different ways of re-using them.				



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Lesson 6: Ways to keep the school surrounding clean

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:** a) name proper ways of waste disposal at school and its direct neighbourhood

**Skills:** a) organize proper waste disposal in the school and its direct neighbourhood  
 b) participate in keeping the school and its direct neighbourhood free of solid waste as well as to develop such habits.

This lesson also helps the students to develop the following attitudes.

**Attitudes:** a) become curious about ways of responsible active cooperation in the school and its direct environment  
 b) become curious about reusing/recycling some of the leftovers

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 We have to feel and act responsibly to keep our surrounding clean	No material needed	1 Teacher clarifies the responsibilities to keep the school environment clean by asking questions like who are responsible to keep our surroundings clean? What shall we do to keep it clean? What do the responsible children comment on the behaviour of the others	1 Students name the ways they can keep their school surroundings clean	5 minutes
2 The green basket is for organic leftovers, the red is for papers which can be recycled, the yellow basket is for other inorganic leftovers.	Green basket Red basket Yellow basket	2. Teacher discusses about the use of these three different baskets. Ask children to check the baskets whether the leftovers are in the proper place or not. Students should comment what they see and why it is in the right basket. If not ask them to put it in the right basket. Students who touched the waste wash their hands	2.a Students name the proper basket for different leftovers 2.2 Students put leftovers into the right basket.	7 minutes
3 In the school and its direct neighbourhood children could organize ways to collect leftovers in separate ways	No material needed at school	3 Teacher asks the students how they are collecting waste in the school and its direct neighbourhood. He/she asks them to tell him their experiences on this aspects	3 Children give ideas on proper waste - disposal in their school and its direct neighbourhood	5 minutes
4 There are different ways to cooperate in keeping our school and its direct environment clean.  (Manual Guide to the book page 10/11)	The books My world How to reduce waste (page 49-51)	4 The teacher distributes the book to the students according to the number of books and number of students. Ask them to read the story 'What to do in order not to produce waste'. Teacher asks the students some questions to check whether they have understood the passage.  - What can be done with the waste materials - How the waste production can be reduced. - What should we do to reduce the wastes like plastics etc	4 Children read and comment on the text in groups	23 minutes
Homework. Write down the ways of keeping our immediate neighbourhood clean and bring in the next class some used paper except paper which is greasy				



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**Lesson 7: Responsibilities of keeping one's surrounding clean**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- name proper waste disposal methods in the school and its direct neighbourhood
- compare different forms of dealing with waste in one's home and school naming their relative advantages and disadvantages
- describe the transformation process of organic leftovers in composting

**Skills:**

- organize proper waste disposal in the school and its direct neighbourhood in order to keep it free of waste
- apply necessary steps for composting

This lesson also helps the students to develop the following attitudes.

**Attitudes:**

- feel responsible for solving the waste problem in the school and its direct neighbourhood
- enjoy in finding ways to co-operate in the school and its direct neighbourhood

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcomes	E. Estimated Time
1. If we feel and act responsibly for our waste, our classroom, home, school and neighbourhood will be clean	No material needed.	1. Teacher asks different questions like: Who is responsible to keep our home, school and its direct neighbourhood clean? What should we do to keep it clean? What do you do to keep your school and its direct neighbourhood clean? On the basis of the answers the students should be encouraged to take their active responsibilities in keeping their school and its direct neighbourhood clean	1.1 Students name the ways of keeping our home, school and its direct environment clean. 1.2 Students accept their responsibilities to keep their school and its direct environment clean	7 minutes
2. The transformation process of organic leftovers into compost needs oxygen; that is why the compost pile has to be turned several times. The transformation process produces heat, which kills pathogen germs. The transformation process also requires some moisture	a shovel compost pile mat, plastic  - Water & Soap	2. Teacher invites children to go down and look at the compost pile, feel it, describe and turn it. If the pile is too dry, students are asked to sprinkle water over it. Then the pile should be covered with a mat, in rainy weather with a plastic. Teacher explains why. They finally wash their hands.	2.1 Students describe the needs to turn the compost pile frequently 2.2 Students describe the reasons of sprinkling water over a dry compost pile	18 minutes
3. Some examples - glass can be melted and then formed into new glass  - The first step to make paper is to tear it into many pieces and soak them in water	Pieces of paper	3. Teacher asks the questions like, which materials can be used to produce some kind of new materials? Then he will explain that these old papers can be used to make new ones. We ourselves can do it. After that, she/he will ask the student to tear the paper into small pieces. It will be better, if the teacher demonstrates it first. Teacher will explain that the pieces of paper will be soaked in water a day before. He will explain that these soaked paper will be ready to make new paper in the next class	3 a Children name some waste-material, which can be reused or recycled  3 b Children tear paper into tiny pieces	15 minutes

Note. Teacher should soak the pieces of paper a day before the next class, so it becomes soft.



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Lesson 8: Participating in the cleaning activities

Objectives: At the end of this lesson, students will be able to:

Skills:

- a) organize proper waste disposal in school and its direct neighbourhood.
- b) separate waste objects
- c) make paper out of used paper

This lesson also helps the students to develop the following attitudes.

Attitudes:

- a) appreciate the role of appropriate waste handling (for the physical and mental well-being as well as for the aesthetic quality)
- b) enjoy finding ways to co-operate in the school and its direct neighbourhood
- c) enjoy making paper out of used paper

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 If everybody feels and acts responsibly, a special group of responsible people do not have to be employed e.g. sweeper peon etc	No material needed	1 Teacher asks for comments on the students who are responsible to keep the school and its direct environment clean. She/he also asks the responsible children on the cooperation of the others. Teacher should make them understand that they are responsible to keep the school and its direct environment clean.	1 a Students explain that everybody is responsible for keeping the school and its direct environment clean  1 b They name the way of keeping the school and its direct environment clean	5 minutes
2 To make new white paper you need - trees - a lot of clean water - and electricity  To make paper out of used paper you need - little water - little electricity - no tree, used paper	Blackboard chalks	2 Teacher asks what they need to make paper. If children do not know he/she tells them and writes it onto the blackboard. Children repeat. He/she also compares the expenses needed for making new paper and making paper out of old paper. He writes it onto the blackboards.	2 a Students list out the materials needed for making new paper  2 b Students explain that making paper out of used paper is cheap and easy	10 minutes
3 The soaked paper has to be ground so it dissolves in water  (see instructions how to make paper in "My World" page 89 - 92)	2 basins, 3-4 frames cloth, bottle soaked paper news paper book "My World"  - water  Book. 89-92	3 Teacher demonstrates the materials needed to make paper. he asks few children to come in front, to grind the wet pieces of paper between their hands. The other children take out the instructions how to make paper and read the first steps. After preparation of mixture of the wet paper pieces, he pours it into other basins showing all the procedures to the children. Add water as required. With the help of some of the students the teacher takes frames and demonstrates the procedure of making paper. Select some of the students from the class and ask them to prepare paper with the help of the frame. Teacher supervises, instructs and helps actively in all the groups. After drying the papers properly the teacher and students discusses its different uses.	3 a Children grind the soaked paper  3 b Students make paper out of wet pieces of paper	25 minutes





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Lesson 9 Methods of waste disposal

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge.**

- a) name proper waste disposal methods in the school and its direct neighbourhood
- a) organize proper waste disposal in the school and its direct neighbourhood
- b) separate waste objects
- c) participate in keeping the school and its direct neighbourhood free of solid waste

This lesson also helps the students to develop the following attitudes.

**Attitudes:**

- a) feel responsible for solving the waste problems in the school and its direct neighbourhood
- b) appreciate the role of appropriate waste handling for our well-being

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. If we cooperate in keeping our school and its direct surroundings clean, we feel better.	No material needed.	1. Teacher asks the students about advantages of clean school environment, then he asks the students to discuss on how we can help to make/keep the school and its surrounding clean	1. Students discuss and explain the ways they can cooperate in keeping the surrounding clean	5 minutes
2. There are many ways of acting responsibly, most important is, we do not dispose waste improperly	Black board chalk.	2. Teacher writes their ideas of responsible actions onto the blackboard, if necessary he adds some more, children copy.	2. Children copy ways of acting responsibly.	8 minutes
3. The illustration of a dice has to be cut out, folded and glued together	Out of the set of games, the print for a dice No. 20, paper, glue etc instructions 87/88 "My World"	3. Teacher distributes the print for making a dice, lets children make a dice (if that takes too long, children can just tear up 4-6 even papers, write down the number on each papers, turn them around shuffle them and let the other players pull one paper	3.a Students prepare a dice. or b Students prepare papers with different numbers	7 minutes
4. If you act responsibly you move up the ladder if not you go down the snake You win when you are the first who arrives at number 40	Instructions for the ladder game page 87 in 'My World'  Ladder snake games, page 74	4. Teacher hands out the book and invites children to read the instructions how to play the ladder game. She/he forms groups for playing the game. Teacher helps if needed. Teacher goes around to the groups and asks children to comment why they have to move up and why down	4.a Students play the game following the instructions  b Students explain what happens if they act responsibly	20 minutes



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**Lesson 10: Values of waste objects**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) name different ways/methods of reusing leftovers in the surrounding environment
- b) name the values of the waste objects

**Skills:**

- a) organize proper waste disposal in the school and its direct neighbourhood
- b) separate waste
- c) participate in keeping the school and its direct neighbourhood free of solid waste

This lesson also helps the students to develop the following attitudes.

**Attitudes:**

- a) feel responsible for solving the waste problems in the school and its direct neighbourhood
- b) appreciate the role of appropriate waste handling for our well-being

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. If we all act responsibly we keep our school and its surrounding clean. If people do not cooperate it is difficult to keep the school and its direct surrounding clean.	No materials needed	1 Teacher first asks few students about how to clean our school surrounding and the difficulties which may come across in doing so, what happens if every one does not co-operate? etc.	1 1 Students name the ways of keeping the schools and its direct surrounding clean. 1 2 Students describe the difficulties in keeping the school and its direct neighbourhood clean.	10 minutes
2. If we re-use the materials which we normally throw away considering it as wastes, there will not be any waste.	No material needed	2 Teacher asks the questions like whether we can reuse the materials which we have thrown away considering it as wastes? Leftovers have values or not? What advantages we can take from it? Teacher explains on the basis of their answers.	2 Students explain why waste does not really exist and what we can do with different leftovers.	5 minutes
3 Leftovers from preparing food can be used for composting glass, tins, papers and some plastic can be reused/recycled. We should not consider everything as waste (see Manual. Introduction, last chapter)	Book: My world "But why do we talk about waste?" page 77-80	3. Teacher distributes the books and asks the students to read the lesson and discuss what they have learnt from it. The teacher helps if needed.	3 Children name different kinds of leftovers that can be reused	15 minutes
4 Some leftovers which are in the yellow basket can be reused, some can be sold and a few we have to dispose properly	Yellow basket with its leftovers - Soap & Water	4 The teacher asks the children to discuss how the things can be reused and what should be done for those that can not be reused. The teacher helps if needed. He also asks to separate them. They at last wash their hands	4. Children say, what they can use the leftovers for. They name inorganic leftovers which can be recycled and sold.	10 minutes



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**Grade III**

**Lesson 1** Proper places of defecation in the school and its surroundings

**Objectives** At the end of this lesson, students will be able to

**Knowledge**

- name the proper places for defecation at the school and its immediate neighbourhood
- list the harms due to defecation at improper places
- name the rules/ways which need to be followed while defecating at proper places

This lesson also helps the students to develop the following attitudes

**Attitudes**

- be aware of the harms due to careless defecation in and around the school

A. Subject for Teaching	B. Material Needed	C Teaching Activities	D. Learning Outcome	E. Estimated Time
1 If we have a latrine at our school and it is in good conditions, we should always use it. If there is no latrine at our school we can use a public latrine (if it is close to the school)	Not needed	1 Teacher will ask the students "Where do you go for defecation?" "Is there any public latrine in the immediate neighbourhood?" After their responses teacher will explain them that they should always use the latrine at the school and if it is not in good condition try to put it into good condition, if not possible they can use the public latrine	1.A Students say as far as possible they have to use the latrine at the school 1.B Students express that they can also use public latrine	5 minutes
2. If we do not make use of school latrine or nearby public latrine and defecate in places like at the courtyard, playing grounds, on the road, at the corner of the school building etc It will harm us, and harm the people who live near our school. It will harm in the following way  a) The school and its immediate neighbourhood looks dirty, b) It gives bad smells c) It attracts flies and helps its multiplication. The fly lays its eggs on the dirty places like the excreta and multiplies its numbers. It spreads the diseases to men. Similarly, if the flies are carrying pathogenic organism on their feet and if they sit on our food and then we eat that food the organisms enter onto our body with the food and make us sick. d) Walking barefoot, hookworms being in the excreta can get into the feet.	Cards 33, 36, 38 and flannel board (if it is available)	2 Teacher will show the picture 38 and stick it onto the flannel board if there is one and ask the student whether the boys shown in the picture are defecating or passing urine at the right places or not. After their responses, the teacher will show the picture 33 and ask the students to name the organisms shown in the picture. Teacher will explain to students that the organisms which are shown on the fly's feet are the pathogenic organisms which make us sick. Teacher will show the picture 36 to the students and explain the students how the fly transmits diseases by sitting on our food. Teacher will explain how we get hookworm infestation. Finally, the teacher will write each of the harms due to defecation at improper places on the board and explain each of them. Teacher will ask the students to repeat.	2.a Students say that it is not good to defecate or passing urine at the improper places. 2.b Students describe how the flies transmit diseases 2.c Students lists the harms due to defecation at improper places	20 minutes
3 We have to follow some of the rules/ways while using latrines at school or the nearby public latrine. We should not defecate carelessly in such places	Not needed	3. Teacher will ask the students, why should we use the latrine in right ways? We only use the latrines or others also have to use it? Finally, teacher will explain the students that since others also use latrines we should always keep it clean	3 Students explain that they should keep the latrine at the school clean	5 minutes
4 We have to follow some ways while using the latrines. Such ways are, to defecate right in the hole of the pan and not other places like place where we put our feet etc. To pour water at the place where we pass urine, if the pan is dry we need to pour some water in it before using it (it will help excreta not to stick on it), we should not put the materials like plastics, glasses, stone or wooden pieces in the pan (it will block the hole and we cannot use the latrine). If there is no water in the latrine we should carry enough water while going for defecation. We should wash properly after defecation. We should wash our hands properly with soap and water (if soap is not available at least with enough water). Wash away the excreta with water keeping the latrine clean etc.	Chalk, duster, board, card 48 flannel board	4 Teacher will show the picture 48 to all students then he sticks the picture 48 on the flannel board, if there is one, and asks the students "Whether the man in the picture is defecating in a proper way or not?" The teacher further asks why. After the responses, teacher will explain it to the students. The teacher will write the proper ways of using a latrine on the board and ask the students to repeat.	4 Students name the proper ways/rules of using latrines	10 minutes



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Grade III

Lesson 2: Advantages of defecating at proper places and the rules for open air defecation

Objectives. At the end of this lesson, students will be able to:

Knowledge:

- a) name the advantages of using the latrine at the school or nearby public latrine.
- b) explain the criteria to be considered while selecting the open places for defecation.
- c) name the rules to be followed while defecating at the open places.

This lesson will also help the students to develop following attitudes.

Attitudes:

- a) be aware of defecating in the school and its surroundings.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. If we use the latrine at the school or nearby public latrine we will have many advantages, such as there will be no bad smells environment looks clean, there won't be flies, diseases will not be spread to us or to the people who live in school surroundings	Not needed	1. Teacher will ask the students to name the advantages of using latrine  (Revision from previous lesson)	1. Students name the advantages of using latrines.	5 minutes
2. If there is no latrine at the school and its neighbourhood or if it is not in good condition, we need to go for open air defecation. We should take care of selecting proper places for defecation and should not defecate carelessly everywhere. While selecting the place, we should consider some criteria such as it should not be a place where many people use to walk (roads, street etc.), it should not be a damp place (in such places pathogenic organisms and hookworm larvae live longer period of time) We should select sunny place we should not defecate near to water sources like ponds, streams, etc. If we do so, the diseases, can be spread. We should not defecate at the places where cattle, pigs etc use to graze they can spread the diseases	Chalk, duster, board, book My World, page 68-69	2. Teacher will ask the students 'if we need to defecate at the open whether you will select proper places or defecate any places where you like to do so? After students responses, teacher will explain the criteria to select a proper place for open air defecation. Teacher shows the picture of the pig spreading diseases, and asks children to explain the pictures. Teacher asks how we can avoid diseases from spreading	2 a. Students say they should not defecate carelessly even in the open places  2 b. Students name the criteria which need to be considered while selecting open places for defecation  2 c. Students explain how also animals can transmit diseases	20 minutes
3. After defecating at open places and covering the excreta with soil or grass and leaves, we wash our hands properly with soap and water (if soap is not available at least with water)	Not needed	3. Teacher will ask the students 'Why should we need to wash properly after defecation and after covering the excreta with soil?' Finally, teacher will explain it.	3. Students say they need to wash their hands properly after covering the excreta with soil	5 minutes
4. We have to follow some of the rules even after defecating at open places, such as, covering the excreta with enough soil grass or leaves. If we could do so we will have many advantages like there won't be bad smells it does not look dirty, flies do not multiply	Card 47 flannel board (if available)	4. Teacher will ask the students 'whether we need to follow some of the rules after defecating in the open places or not?' Teacher shows the picture 47 to the children and asks them to explain what the boy is doing. Teacher will explain the rules and its related advantages	4 a. Students say they have to follow some of the rules even after defecating at open places  4 b. Students name the advantages of covering the excreta with soil.	10 minutes





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**Grade III**

**Lesson 3** The proper use of defecation places and proper habits for it.

**Objectives.** At the end of this lesson, students will be able to:

**Knowledge:**

- a) name the different ways/rules which need to be followed while using the latrine.  
 b) name the different proper habits, which need to be developed for the proper way of defecating

**Skills:**

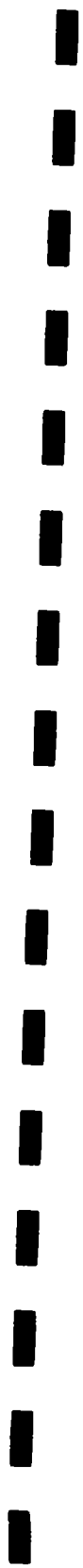
- a) demonstrate the proper habits which need to be followed while using latrine at the school (by acting).  
 b) demonstrate the rules/ways, which need to be followed after defecation at the open places (by acting).

This lesson will also help the students to develop following attitudes.

**Attitudes:**

- a) be conscious about the habits which need to be followed while defecating in the latrine or at open places.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 We should follow some rules while using latrine such as, to carry water while going for defecation (if there is no provision of water in the latrine), washing properly after defecation, washing hands properly etc (Revision)	Not needed	1. Teacher will ask the students 'What are the rules to be followed while using latrine?' Teacher will ask them to recall the lesson learnt in previous classes and explain. Finally teacher will also explain the different rules.	1 Students name the different rules, which need to be followed while using a latrine.	3 minutes
2 Likewise, we need to follow some proper ways, like, defecating in the hole of the pan, not putting materials like plastics, soil etc in the hole, keeping the latrine clean, washing away the excreta after defecation by pouring enough water etc.	Not needed	2 Teacher will ask the students to recall the lessons about the proper ways of using latrines and explain it.	2. Students name the proper ways which need to be followed while using a latrine.	3 minutes
3. (Subject for teaching 1 and 2)  We should always follow the rules and proper ways of defecating (in a latrine or in the open places) In fact we should practice these rules/ways and develop it as one of our essential habits.	Not needed.	3. Teacher will ask the students 'Why should we always follow these rules?' Finally, teacher will explain the students that we have to develop these ways/rules as our essential habits.	3.a) Students say they should always follow proper rules/ways when they are defecating.  b) Students express the need to practice these ways/rules in every day practice.	5 minutes
4 Subject for Teaching 1, 2 and 3	Chalk, soap, water, jug, empty bowl, towel, duster	4 Teacher will make a circle as in the defecating pan on the floor, he will also mark the place for putting the feet. Teacher will ask one student to come forward and demonstrate the proper use of latrine by following the rules/ways of using latrine by acting. Teacher will ask the students to act without putting off the clothes. After his acting teacher will ask other students whether their friend had demonstrated how to follow rules/ways using latrine by acting or not? After students responses teacher will also explain the students, who had acted, to wash his hands with soap and water (it is an emphasize for washing hands with soap and water) Teacher will erase whatever marked on the floor.	4 a) Students demonstrate how to follow rules/ways by acting  4 b) Students express their comments on the acting	15 minutes
5 We also need to follow some rules while defecating at open places, such as: covering the excreta with enough soil, washing hands properly with soap and water or at least of water	One jute bag, plastic bag full of soil, water, soap, empty bowl, jug, towel	5 Teacher will invite one student forward and ask him to demonstrate open air defecation on the jute bag by acting. Teacher will ask him to demonstrate how to cover excreta with soil. Teacher will ask the students to act without putting off clothes. After his acting, teacher will ask students to comment on their friends' acting. Teacher will also give his comments. Teacher will ask the students to put the soil again in the plastic bag and wash their hands properly with soap and water.	5 a) Students demonstrate the rules while defecating at the open by acting  5.b) Students give their comments on the demonstration of the rules, which need to be followed while defecating in the open.	14 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL SANITATION**  
**Sub-unit 3: Water**

**Grade III**

**Lesson 1: Use and source of water**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a. explain, for what purposes water is used in school and surroundings
- b. identify the sources of water
- c. explain the importance of water in personal hygiene and health

**Skill :**

- a. use water in personal hygiene and environmental sanitation

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1. Uses of water in school</p> <ul style="list-style-type: none"> <li>- to drink, clean, use in toilet and irrigate</li> </ul> <p>Uses of water in community</p> <ul style="list-style-type: none"> <li>- to drink and cook</li> <li>- to clean pots and floors</li> <li>- to use in toilets</li> <li>- to use for personal hygiene</li> <li>- to wash clothes</li> <li>- to irrigate, and</li> <li>- to serve to the cattle</li> </ul>	<p>Chalk, duster and board</p>	<p>1 The teacher will ask the students in what ways water is used in school and its community. On the basis of their responses teacher will let them discuss on uses of water. Finally, he will write the uses of water on the blackboard</p>	<p>1. The students explain the uses of water</p>	<p>10 minutes</p>
<p>2. Sources of water in school might be</p> <ul style="list-style-type: none"> <li>- tap, tube well, well, pond, spring etc</li> </ul> <p>Source of water in community might be.</p> <ul style="list-style-type: none"> <li>- tap, tube well, well, pond, river, lake, etc</li> </ul>	<p>Chalk, duster and blackboard</p>	<p>2 The teacher will take all the students to show them the sources of water in the school and the near surroundings. After observation they will go to the classroom and name and describe the sources they observe. If they cannot leave the classroom, students have to recall in their memory</p>	<p>2. Students will observe the water sources and explain the sources of water found in community and in the school</p>	<p>25 minutes</p>
<p>3 Water is essential for the personal hygiene. Without water we cannot clean. We should drink enough water to keep our health good. We also need water to clean surroundings and toilets</p>		<p>3 Teacher asks why water is very essential for us. Their responses will be concluded by the teacher.</p>	<p>3. Teacher will explain that water is essential for personal hygiene and health</p>	<p>5 minutes</p>



**SUBJECT:** HEALTH EDUCATION  
**UNIT 2:** ENVIRONMENTAL SANITATION  
**Sub-unit 3:** Water

**Grade III**

**Lesson 2. Causes of water contamination**

**Objectives:** At the end of this lesson, students will be able to:

- Knowledge:**
- a. describe how water becomes contaminated in school and surroundings
  - b. explain how water can be kept clean and safe
  - c. explain how water can be used economically

**Skill:** a. drink only clean/boiled water

**This lesson also helps to develop the following attitudes:**

- Attitudes:**
- a. appreciate clean water
  - b. be aware to use water conscientiously

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 Causes of water contamination in school</p> <ul style="list-style-type: none"> <li>- storing pots/jars are not covered</li> <li>- touching with dirty hands</li> <li>- water is taken from dirty source/reservoir</li> </ul> <p>Causes of water contamination in surrounding:</p> <ul style="list-style-type: none"> <li>- dirty behaviors are done in the sources (washing, defecating, throwing wastes, letting animals play)</li> </ul>	<p>Book: My World page 64</p>	<p>1 The teacher will show the page 64 of My World to all the students and ask some question What do they see in the picture? Is the water clean or dirty? Why? How does water becomes contaminated? Then s/he will collect all the responses from the students and s/he will explain, discuss, demonstrate, how water becomes contaminated.</p>	<p>1 The students will explain how water becomes contaminated in the school and in the surroundings</p>	<p>15 minutes</p>
<p>2. We should always drink clean/boiled water If we drink dirty or contaminated water we will be affected by different communicable diseases Therefore, boiled water should be used as far as possible If it is not possible at least clean water should be drunk</p>	<p>Book: My World page 64</p>	<p>2 The teacher will point to the picture and ask the following questions</p> <ul style="list-style-type: none"> <li>- Do you like to drink the water as shown in the picture? Why not? Which water do you like to drink?</li> </ul> <p>Then the teacher will collect all the responses and let the students discuss. The teacher uses the method of question-answer to describe only clean/boiled water should be used</p>	<p>2. The students will explain that clean/boiled water should be drunk. They will start practicing to drink clean water.</p>	<p>5 minutes</p>



**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

**Grade III**

**Lesson 1 Thread-worms and hook-worms**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge:**

- a) explain what communicable diseases are.
- b) explain what thread-worms and hook-worms are.
- c) describe the symptoms of thread-worm and hook-worm infestations.
- d) describe how thread-worms and hook-worms are transmitted from one person to another.
- e) discuss the preventive and control measures against thread-worm and hook-worms.

This lesson also helps the student to develop following attitudes.

**Attitudes:**

- a) realize the importance of personal hygiene and wearing shoes.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Communicable disease is such disease which spread from one person to another. Scabies, hook-worm thread-worms, etc are the examples of communicable diseases	Chalk, duster and black board	1 Let the students explain what communicable diseases are. The teacher will list their responses on the blackboard to conclude the ideas	1 Students will say what the communicable disease is and name some.	7 minutes
2 Thread-worms are parasites which are very small and threadlike. hook-worms attach themselves to the walls of the guts. They are very dangerous	Chalk, duster and black board	2 Teacher will draw some thread-worms on the blackboard. Then he will explain that thread-worms are parasites in the intestines. He will explain what hook-worms are and what they can do to us.	2 Students will say what thread-worms and hook-worms are and where to find them.	6 minutes
3 Thread-worms cause itching especially at night. These worms lay thousands of eggs just outside the anus. So itching occurs especially in that area. Hook-worms suck blood. This way they cause weakness, anemia and pale face.	Chalk, duster and black board	3 The teacher will ask the students about symptoms, then he writes and explains the symptoms of thread-worms and hook-worms.	3 Students will describe the effects of thread-worms and hook-worms.	5 minutes
4 When a child scratches the eggs stick under its nails and are carried to food and other objects in this way they reach his mouth or the mouths of others, causing new infection of thread-worm. The hook-worm eggs pass through the persons' stool. The eggs hatch on moist soil. This way walking barefoot the larva enters into feet.	Chalk, duster and black board, thumb pins, soap	4 The teacher will ask the students what they will do in case of itching. Then he will act how thread-worms are transmitted. The teacher will put some thumb pins on the floor and let a student press the soap on the pins. He will show how the thumb pins stick on the soap and he compares the soap with our feet and the thumb pins with larvae of hook-worms.	4 a They will explain the process of transmitting the thread-worms. 4 b They will explain how hook-worms are transmitted.	10 minutes
5 To prevent the infestation one should thoroughly wash his hands and buttocks after having a bowel movement. Finger nails should be cut short. He should not scratch his anus to avoid the transmigration of the worms. To prevent infestation of hook-worms shoes should be worn and latrine should be used.		5 The teachers will let the students explain the preventive measures against the thread-worms. Then he will sort some of the students to revise the nails, hands and feet. He/She will ask all students to keep their hands clean and their nails short and always walk with shoes.	5 Students will say that they should not scratch their anus and keep hands clean, nails short and wear shoes.	7 minutes.
6 If we think we have thread-worms or hook-worms stool has to be checked, if we have worms we should take medicine. Guidelines of cleanliness have to be followed carefully.	Chalk, duster and black board	6 Let the students describe what may be the control measures. Finally teacher will explain medicine as well as cleanliness and wearing shoes itself are control measures against thread-worms and hook-worms.	6 Students explain that cleanliness itself is a control as well as preventive measure. They will explain what to do if they feel any symptoms.	5 minutes





**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

Grade III

Lesson 2: Scabies and Conjunctivitis

Objectives: At the end of this lesson, students will be able to:

Knowledge:

- a) explain what scabies are
- b) explain that scabies cause itching
- c) describe that cleanliness is the main measure for preventing scabies
- d) explain the symptoms of sore eyes
- e) explain the causes and preventive measures of sore eyes

This lesson also helps the student to describe following attitudes

Attitudes: a) show an interest in cleanliness and prevention of communicable diseases

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Scabies is a kind of itching disease especially in the genital areas, between the fingers on the wrists and along the belt-line of the stomach The itching is usually worse at night.	Chalk, duster and black board	1 Teacher will ask the students what they should do if they start itching from scabies etc. In conclusion the teacher will explain what scabies are	1 Students explain what scabies are	5 minutes
2 People who live in very in-hygienic conditions can easily get scabies. The factors responsible for transmitting scabies are: not taking baths regularly, not frequently changing into clean clothes and having direct contact with persons who have scabies	Chalk dust	2 The teacher will ask to describe living in in-hygienic conditions. The teacher will then demonstrate how easily scabies are transmitted. Teacher asks the children: Put some chalk dust on one hand and put the other hand together so that the chalk dust sticks on the free hand. In this way, germs are also transmitted.	2 Students will say that scabies are transmitted through dirty habits and living in in-hygienic conditions	5 minutes
3 To prevent this disease, we have to wash our body, put on clean clothes, not use other people's clothes etc. If we have scabies we should consult the health personnel	Chalk, duster & black board	3 The teacher will ask for the preventive measures against scabies. He will then emphasize the importance of good personal hygiene habits. Finally, he will say that if we have scabies we should consult health personnel.	3 Students will say what kind of preventive measures they should undertake and how scabies can be caused	5 minutes
4 Sore eyes causes redness, Pus and burning in eyes, watering of the eyes etc. are the symptoms of sore eyes. The lids often stick together after sleep	Chalk, duster and black-board	4 Let the students describe their experiences regarding sore eyes. The teacher will list their responses. Finally he will explain the symptoms of sore eyes.	4 Student will explain the symptoms of sore eyes	6 minutes
5 It is caused by dust and germs entering into eyes. It can also be caused by rubbing eye-lids with dirty hands		5 The teacher will rub the eyelids to show the causes of having sore-eyes. He will also explain about dust and germs which cause sore-eyes	5 Students will explain that dust, germs and rubbing eye-lids cause sore-eyes	7 minutes
6 Guidelines of cleanliness should be followed to prevent the infection. It can be easily transmitted. Therefore a child with sore-eyes should not be allowed to play or sleep with others or wash their eyes in the same water. If we have sore-eyes we must consult a health worker or a doctor	Cup, water pots and towels	6 The teacher will ask the students what should be done to clean the eyes. Then he will take a cup of water to show how eyes should be cleaned. If time permits some student should demonstrate cleaning the face in clean water (for each student clean water). Teacher will explain the students about the need to consult a health worker/doctor if they have sore-eyes	6 a Student will explain the methods of cleaning eyes b They will say that they should consult a health worker/doctor if they have sore-eyes	12 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 4: COMMUNICABLE DISEASES**

**Grade III**

**Lesson 3: Methods of preventing Communicable diseases**

**Objectives:** At the end of this lesson, students will be able to:

**Knowledge**

- a) name different types of communicable diseases
- b) explain symptoms of communicable diseases.
- c) explain preventive measures for communicable diseases.

**Skills:**

- a) control rodents in their homes by closing the holes using brick, stone, mud, etc.

**This lesson also helps the student to develop following attitudes.**

**Attitudes:**

- a) develop consciousness in preventing different diseases.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 We learnt some of the communicable diseases	Chalk, duster and black board	1 Let the students list a few communicable diseases. In conclusion the teacher will summarise the responses	1 Students will list different diseases	5 minutes
2 Symptoms of having communicable disease can be feeling weak, having stomach pain, itching, having diarrhoea. Stool-tests should be done and a doctor or health worker consulted	Not needed.	2 Teacher asks about the symptoms of communicable diseases, he completes if necessary. Teacher asks what should be done having these symptoms	2. Students name symptoms of communicable diseases and actions to be taken	10 minutes
3 Personal hygiene like having clean hands and short nails, cleaning the body regularly, wearing shoes, using latrine prevent many diseases.	Not needed	3 Teacher will let the students write down name of preventive measures. Teacher writes them on the black-board	3 Students will explain the preventive measures for communicable diseases	5 minutes
4 Rodents transmit diseases therefore we should control them	Chalk, duster & black-board	4 Let the students explain whether they find rodents in their homes or not. Then they will be asked how they come and how to control them. Finally the teacher will describe to close the holes in their homes.	4 They will explain about the rodents and the need to close the holes of walls in their homes	5 minutes
5 We must know how to find the holes of rodents so that we can close them in time		5 Let the students find holes in school building/compound and discuss how to close them	5 They detect the holes in the wall in their school, where mice and rats can enter	15 minutes



### 3.6 Distribution of Lessons in Grade 4 and 5

The following lesson-plans are developed to assist teachers in teaching those lessons of the subjects "Health Education" and "Environmental Education" to grade 4 and 5. which are related to sanitation problems in urban areas

In the existing curriculum the following units are related to waste problems.

in the subject Environmental Education.

Unit 4 : Environmental Pollution

in the subject Health Education:

Unit 2 : Environmental Cleanliness

The general objectives of the national curriculum had been elaborated and made operational for every day teaching. Within Environmental Education two objectives were dedicated to 4th grade and four to 5th grade. Within Health Education four were dedicated to 4th grade and three to 5th grade. All together we developed 10 lesson-plans in 4th grade, 18 lesson-plans in 5th grade.



### 3.7 LESSON PLANS GRADE IV

#### TABLE OF CONTENTS:

#### ENVIRONMENTAL EDUCATION

##### Unit 4: Environmental Pollution

- Lesson 1: Different sources of pollution in the urban environment
- Lesson 2: Responsibilities in proper waste management in urban areas

#### HEALTH EDUCATION

##### Unit 2: Environmental Cleanliness

- Lesson 1: Classification of leftovers, which still have value for reuse, recycling or composting and leftovers which have no value
- Lesson 2: Classification of waste into organic and inorganic leftovers
- Lesson 3: Recycling paper
- Lesson 4: Preparation of compost in urban areas
- Lesson 5: Process of decomposition of organic leftovers
- Lesson 6: Cleaning activities in the surrounding of the school
- Lesson 7: The quality of water in the neighborhood
- Lesson 8: How to use water consciously





**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL POLLUTION**

**Grade IV**

**Lesson 1: Different sources of pollution in the urban environment**

**Objectives: At the end of the lesson the students will be able to**

**Knowledge.**

- a) explain the meaning of pollution
- b) explain that dumping waste in the streets and open places in the neighbourhood is a source of pollution
- c) explain how uncontrolled dumped waste can affect our health and inner well-being
- d) name polluting activities at and near the rivers/ponds and describe how this can affect our health

**Skill:**

- a) identify waste polluted grounds or water in the neighbourhood
- b) distinguish polluting activities from non polluting activities

**This lesson will also help the students to develop the following attitudes:**

**Attitude:**

- a) take keen interest and concern in the pollution in the neighbourhood and in the locality

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 a Pollution is an unhygienic condition in our environment which harms our health. There is air pollution, water pollution and ground pollution etc.</p> <p>b In urban areas the improper disposal of solid waste is a source of pollution.</p>	<p>Book: "My World" Page 66</p>	<p>1 a/b Teacher asks the children that if we want to be healthy we need to breathe clean or dirty air? We need to live in a clean or a dirty environment? Then the teacher explains the meaning of pollution.</p> <p>c The teacher distributes the books and lets the students describe the pictures, then he forms groups of 3-5 students asking them to find an answer to the questions.</p> <p>What is your opinion of finding dumped waste in open places in the city? In which ways can this dumped waste affect us? Find different ways.</p>	<p>1 a. Students express that we need clean environment to remain healthy.</p> <p>b. Students say that pollution is a condition of dirtiness in our environment.</p> <p>c. Students describe what they see in the picture.</p> <p>d. In groupwork students interpret the picture and draw consequences for hygienic risks.</p>	<p>10 minutes</p>
<p>2 Dumping waste in the streets is extremely hazardous for the health of the citizen. When many people create waste and leave it in their locality, waste accumulates, pathogen germs are created and flies + rats get attracted transmitting diseases.</p> <p>When children play in the waste heaps and touch the waste, the pathogen germs can get directly into their mouth and make them sick.</p>	<p>Book: "My World" Page 66</p>	<p>2. Teacher asks one of each group to give their opinion on dumping waste in the streets. Teacher helps out if necessary.</p>	<p>2 a. Students express that uncontrolled dumping of waste is a source of pollution.</p> <p>b. Students name the different ways of getting sick through uncontrolled dumped waste.</p>	<p>10 minutes</p>



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL POLLUTION**

**Grade IV (continued)**

**Lesson 1. Different sources of pollution in the urban environment**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) explain the meaning of pollution
- b) explain that dumping waste in the streets and open places in the neighbourhood is a source of pollution
- c) explain how uncontrolled dumped waste can affect our health and inner well-being
- d) name polluting activities at and near the rivers/ponds and describe how this can affect our health

**Skill:**

- a) identify waste polluted grounds or water in the neighbourhood
- b) distinguish polluting activities from non polluting activities

**This lesson will also help the students to develop the following attitudes:**

**Attitude:**

- a) take keen interest and concern in the pollution in the neighbourhood and in the locality

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
3 Throwing waste into the water or around it and defecating near or in the water pollute ponds and rivers	Book "My World" Page 64	3 Teacher asks the students to identify polluting activities in the picture	3 a. Students distinguish between polluting activities and non polluting activities at the pond	5 minutes
4 Washing cars, bleaching carpets and leading the sewage water into the rivers also pollute our rivers		4 The children are asked for the polluting activities they have observed in rivers or ponds. Teacher helps if necessary	4 Children name how rivers and ponds around them get polluted	5 minutes
5 Vegetable or fruit being washed in this polluted water will carry pathogen germs which can make us sick	Book "My World" Page 65	5 Teacher asks to describe the picture and to answer the question under the picture. Teacher asks the children to explain what happens if vegetable has been cleaned with dirty water	5 a. Children describe the picture b. Children explain that vegetable and fruit are often cleaned with dirty water before offered for selling	5 minutes
6 Besides dumping waste also cars and cigarettes are sources of pollution  The ground and the water as well as the air can get polluted	Book "My World" Page 75/6	6 Teacher asks children to read the text and to look at the pictures, asking them to detect polluting activities people have done. Teacher asks why these activities are	6 Children name polluting activities	5 minutes
7 In the urban areas waste is dumped in many different places, the courtyards, streets, open fields, temple areas, rivers, often very close to people's houses. Walking along the river we can identify many sources of pollution (see 4)		7 Teacher explains homework a. Find uncontrolled dumped waste in your neighbourhood and describe it in the next lesson  b. Go to the next river and find sources of pollution  c. Visit the river or pond and describe polluting and non-polluting activities	7 a. Children identify polluted grounds in their locality and list them. b. Children identify sources of polluting water in their locality and list them c. Children distinguish polluting from non-polluting activities	5 minutes

**NOTE TO THE TEACHER**

In the following lesson all children should be taken out to identify polluted grounds and water in their neighborhood. They should also distinguish polluting from non-polluting activities.



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL POLLUTION**

**Grade IV**

**Lesson 2 Responsibilities in proper waste management in urban areas**

**Objectives** At the end of the lesson the students will be able to:

**Knowledge**

- a) explain the responsibility of the urban population towards their waste
- b) explain what the population has to do to protect their own locality
- c) name the advantages of proper waste disposal for the neighbourhood
- d) develop a plan how to keep the neighbourhood clean through personal involvement

**Skill:**

- a) contact neighbouring children and family to involve them in the protection of the neighbourhood from pollution through waste

This lesson will also help the student to develop following attitudes.

**Attitude:**

- a) realize one's own responsibilities in keeping the home, neighbourhood and locality clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1. People living in urban areas do not feel responsible for waste in the streets and other public places. They take care of their houses only. Sometimes the next container is far from their house so they dump it somewhere being of the opinion that the government, the municipality and the waste management should take over the responsibility of cleaning up their waste. Employing lots of people to carry our waste to the next container would be far too expensive. And even then the city can never be clean as people throw out their waste all through the day.</p>	<p>Teaching Card No. 10</p>	<p>1.a Children are asked to share their observation of uncontrolled dumped waste and pollution of rivers and ponds.</p> <p>b Teacher asks who dumps the waste so improperly and why?</p> <p>Teacher discusses with the children about the attitude of people living in urban areas towards their waste.</p> <p>c. Teacher then asks who should be responsible for the different activities in waste handling in the city.</p> <p>d. Teacher shows the Card No. 10 and asks children what happens if people in the city only take responsibility for their own house.</p>	<p>1 a Children describe uncontrolled dumping site in their neighbourhood and polluted rivers/ponds.</p> <p>b Children explain the careless attitude of the people dumping waste.</p> <p>c. Children express their opinion about the responsibilities in waste handling in the city.</p> <p>d. Children express that the city can never be clean if the population does not cooperate.</p> <p>e. Children express that we should dispose the wastes into the container within fixed time.</p>	<p>15 minutes</p>
<p>2. The services of a waste management in a city in Nepal can only be to carry the already collected waste to a landfill site and to take care that this landfill site is properly kept to avoid hygienic risks of the neighbourhood and the ground water. Active cooperation of the population in keeping the city clean is very essential for having a clean neighbourhood. People have to bring their waste to collecting points, the containers; this is the precondition for good services of a solid waste management.</p>	<p>Card 46</p>	<p>2. Teacher explains the services of a waste management in the city and asks for the tasks the population has to do. Teacher presents the card 46 with the container and lets the children explain which activity they see.</p>	<p>2. Children say that the population has to carry their waste to the next container and keep streets and other public places clean.</p>	<p>5 minutes</p>



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL POLLUTION**

**Grade IV (continued)**

**Lesson 2** : Responsibilities in proper waste management in urban areas

**Objectives** : At the end of the lesson the students will be able to:

**Knowledge:**

- a) explain the responsibility of the urban population towards their waste
- b) explain what the population has to do to protect their own locality
- c) name the advantages of proper waste disposal for the neighbourhood
- d) develop a plan how to keep the neighbourhood clean through personal involvement

**Skill.**

- a) contact neighbouring children and family to involve them in the protection of the neighbourhood from pollution through waste

This lesson will also help the student to develop following attitudes.

**Attitude:**

- a) realize one's own responsibilities in keeping the home, neighbourhood and locality clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
3. Uncontrolled dumped waste affects our physical as well as mental well being	Cards No. 16 and 37	3. Teacher presents the card 16 + 37 and asks for the advantages living around a clean courtyard	3. Children express that the clean courtyard looks much nicer and will be more healthy to live in	5 minutes
4. Children can organize a campaign against pollution of their locality  a. making a cleaning campaign once a week inviting other children of the neighbourhood.  b. talking other children in the neighbourhood not to dump waste anywhere but only at collecting points  c. asking their families to participate in the cleaning activities		4. Teacher forms groups and asks the students to discuss how they could get more involved in keeping their neighbourhood clean. Teacher helps the children to formulate plans	4. Children plan how their neighbourhood can be kept clean through personal involvement, through contacting other children in their neighbourhood and convincing their families to participate.	10 minutes
5. See 4.		5. Teacher asks the children to address their families and children of the neighbourhood and ask them to cooperate in cleaning activities according to their plan.	5. Children give examples how they will approach friends and families.	10 minutes





**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade IV**

**Lesson 1:** Classification of leftovers, which still have value for reuse, recycling or composting and leftovers which have no value

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) explain different ways how to reduce waste in the homes and neighbourhood
- b) classify leftovers into those which still could have same value and those which have no value
- c) list only those leftovers which should be treated as waste

**Skill:**

- a) identify the value of leftovers in the homes and neighbourhood

This lesson will also help the student to develop following attitudes.

**Attitude:**

- a) be interested in keeping the home, neighbourhood and locality free of solid waste

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 waste in the neighbourhood can be reduced by</p> <ol style="list-style-type: none"> <li>a avoiding waste production i.e by not using plastic bags, wrapping papers etc</li> <li>b separating those leftovers which can be recycled and composted from those leftovers which have to be disposed as waste</li> <li>c. produce compost and organize inorganic leftovers to be recycled</li> <li>d disposing all personal waste at collecting points or containers</li> <li>e. cleaning up the streets in regular campaigns through children</li> </ol>	Chalk Blackboard	<p>1 a Teacher asks the children to present their plans of personal involvement in the cleaning activities in their neighbourhood</p> <p>b Teacher asks for other ways of reducing waste in the neighbourhood. If children can't answer this question, teacher asks children to name parts of the waste and let them reflect on their possible value</p>	<p>1 a. Children explain their ideas on their own involvement in cleaning activities</p> <p>b Children name different leftovers and find ways of reusing, recycling or composting</p>	10 minutes
<p>2 Only a small percentage of the waste in the container or uncontrolled dumping places should be treated as waste Glass, plastic, metal items, card board, paper, cloth, kitchen leftovers like vegetable and fruit matter all have value. They can be reused, recycled or used for composting</p>	Garbage bags or garbage container in the street	<p>2. Teacher takes the children out to the next garbage heap or container and lets them classify the waste without touching any*</p>	<p>2. Children classify leftovers into those which should be handled like waste and those which can be recycled or avoided</p>	30 minutes
<p>3 In the household waste only batteries, very oily dirty papers, plastic items, old medicine and a few other things should be treated as waste Batteries and medicine should be treated as special waste and preferably not dumped with other waste They need extra treatment so they do not harm the ground water with toxic material Up to now special treatment to hazardous waste is not yet been guaranteed. It will have to be considered in the near future.</p>		<p>3 Children are asked to list those leftovers which should be treated as waste and those which still have values They complete as homework analyzing their waste at home Children are also asked to collect waste paper except greasy dirty one for the next lesson.</p>	<p>3 Children classify leftovers in useable and non-useable and list them in their exercise book</p>	5 minutes

\* Note. If the waste container is far from the school leisure time can be used.



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade IV****Lesson 2. Classification of waste into organic - and Inorganic leftovers**

Objectives: At the end of the lesson, the students will be able to:

**Knowledge.**

- a) classify waste into organic - and inorganic matter
- b) name ways how to consider the value of leftovers giving examples of reusing and recycling certain leftovers
- c) explain a recycling procedure

**Skill.**

- a) perform the preparations for recycling paper

This lesson will also help the students to develop following attitudes

**Attitude:**

- a) realize one's own responsibility in reducing the waste production

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Glass, metal, paper, cardboard, material, plastic bags can be recycled in a factory in Nepal or India Vegetable leftovers, fruits, animal matter can be used for composting The rest of the leftovers should be treated as waste	- Paper - Cardboard - Plastic bags - Glass, metal items	1 a. Teacher shows the samples of paper, glass, metal items, cardboard, plastic bags & explains that those can be recycled b Children are asked to read their list and explain why one leftover is waste and another one not	1 Children name leftovers and explain their values, indicating for what they can be used	5 minutes
2. Organic leftovers come from anything produced by nature like vegetable - or animal matter, like vegetable peels, fruit peels, egg shell Inorganic leftovers are manufactured by human beings manually or industrially	Chalk Blackboard	2 Teacher writes different leftovers on the blackboard, in one column organic - the other column inorganic leftovers Teacher lets the children characterise the difference. Teacher helps if necessary	2 Children say that one column presents leftovers produced by nature and the other leftovers produced by human beings, manually or industrially	5 minutes
3 Inorganic leftovers partly can be reused or recycled manually (27-29) (-they get cleaned and/or decorated) or industrially, (30-32), which means they get collected, sent to an industry where they get recycled into new glass, - new paper, - new metal items Partly they have to be wasted	Sets of Cards Inorganic Recycling No 27 - 32	3 Teacher asks the children to explain the recycling presented on the cards. Three children are asked to hold up the cards 27, 28 + 29 and three the cards 30, 31, 32	3. The children explain a recycling process of tins newspaper and glass	10 minutes
4 To use inorganic leftovers, like glass, tins, papers etc. as prime material reduces the waste accumulation and saves natural resources		4 Teacher asks for the benefits of recycling inorganic leftovers	4 Children name advantage of recycling inorganic leftovers	5 minutes
5 Paper, except greasy, dirty paper, can be made into paper or paper objects again Most of the new paper is made of natural raw material like trees Nepali paper is made of the bark of the Lokta bush Recycling you save the plants and trees, use much less water and reduce waste accumulation	Book "My World" Page 89/90	5 Teacher proposes to do one recycling process ourselves. Teacher asks the children to take out their book and read the instructions till No 4, Page 90  Teacher explains the instructions if needed	5 Children read the first part of the instructions how to make paper	8 minutes
6. The first step to recycle paper is to tear up used paper into small pieces and soak them for 1 to 2 days, not much more, as the water can foul	- Waste paper - Cardboard box or other containers	6. The teacher collects the waste paper including newspaper excluding dirty greasy or cleanex paper and asks the children to tear them up  7. The teacher soaks the pieces of paper in water 1 or 2 days before the next lesson  Children are asked to collect waste paper separately in order to recycle it	6 Children tear paper into tiny pieces  If time. They read the instruction of making paper till page 92.	12 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

Grade IV

Lesson 3: Recycling Paper

Objectives: At the end of the lesson the students will be able to:

Knowledge: a) list how to prevent destruction of trees and the use of big quantities of drinking water  
 b) name a few reasons why trees are ecologically important  
 c) explain the procedure of recycling paper

Skill: a) collect used paper  
 b) recycle paper from used paper

This lesson will also help the students to develop following attitudes.

Attitude: a) be aware of the importance to recycle waste paper

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 As the production of new white paper is using up trees and lots of water and energy, people all over the world become more concerned of using recycled paper. Recycled paper is often slightly gray or coloured (see manual guide to the book, page 11 for more information).</p>		<p>1 Teacher asks the students if they have seen recycled paper or heard of it? Teacher tells them what white paper is made of</p>	<p>1 a. Children explain how recycled paper looks like &amp; feels like, if they have seen any           b Children list what white paper is made of</p>	<p>5 minutes</p>
<p>2. The soaked paper pieces are grinded with the hands, some water should be added. Out of this mixture paper can be extracted with a screen (see instruction book, page 89-92</p>	<ul style="list-style-type: none"> <li>- Soaked paper in a bucket</li> <li>- deep tray with water</li> <li>- frame with screen</li> <li>- newspaper</li> <li>- water</li> <li>- 3-4 pieces of clean clothes</li> <li>- Book "My World" Page 89-92</li> </ul>	<p>2. Teacher picks out four children to come in front and put all necessary items onto the table. The other students are asked to read the instruction step by step, so the children in front can follow</p> <p>Students can take turns, this way as many as possible can actively participate. If there is time, some students can form objects of the soaked paper using less water. Objects like sculptures, fruits, masks, plates etc can be formed.</p>	<p>2. Some children are reading the instruction to make the paper, others follow the instructions and actually produce paper or paper objects</p> <p>Children clean up after recycling paper</p>	<p>40 minutes</p>
<p>3 By folding, tearing or cutting used paper little objects can be formed</p>		<p>3 a) As a homework children are asked to form objects out of used paper they have collected</p> <p>b) Children are asked to bring one bag of kitchen leftovers (organic), grass, leaves, fruit peels and one bag of soil</p>		



SUBJECT : HEALTH EDUCATION

UNIT 2 : ENVIRONMENTAL CLEANLINESS

Grade IV

Lesson 4 Preparation of compost in urban areas

Objectives At the end of this lesson, students will be able to.

Knowledge

- name the leftovers which can be transformed into compost
- name advantages of producing compost
- explain how to prepare compost

Skill

- be aware of the advantages to prepare compost
- enjoy preparing compost

This lesson also helps the students to develop the following attitudes

Attitudes

- be aware of the advantages to prepare compost
- enjoy preparing compost

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 Compost can be prepared with any natural material anything which once came from the earth, all vegetable - and animal matter But manufactured items cannot be used. The advantages of composting organic leftovers</p> <ul style="list-style-type: none"> <li>- reduces the amount of the waste production considerably</li> <li>- reduces also the production of pathogen germs and</li> <li>- the compost serves the soil as a very good fertilizer</li> </ul> <p>Here, the banana and its peel have been illustrated as an example only. When the boy has eaten the banana (Card 19) the banana peel (Card 20) does not have to be wasted, it can be thrown onto the compost pile (Card 21) where it produces together with other organic leftovers good rich compost. This compost serves the plant as a fertilizer (Card 22)</p>	<p>Teaching cards 19 - 22</p>	<p>1 Teacher asks. What do you need to prepare compost? Give me some reason why we should make compost! Teacher explains if the students do not know themselves</p> <p>Teacher asks 4 children in front who hold up the cards in numeric order. She/he asks to explain what happens to the banana peel</p>	<p>1 A Some children tell their experiences of compost production</p> <p>B Students name organic leftovers which can be used for composting</p> <p>C Students name reasons why compost production is useful</p> <p>D Students explain the natural cycle of a banana peel turning into compost.</p>	<p>12 minutes</p>
<p>2 Organic leftovers are piled up and covered with soil. In the rainy season the compost pile should be covered with plastic, otherwise it fouts</p>	<ul style="list-style-type: none"> <li>- shovel</li> <li>- possibly some bricks as borderline</li> <li>- soil</li> <li>- organic leftover</li> <li>- plastic in rainy season</li> </ul>	<p>2 Teacher takes the children out into the school courtyard or next to the school compound and asks them one by one, to empty their bags of organic leftovers onto a heap. Teacher asks each student to explain why his/her leftovers will become compost. Teacher lets the students take out the inorganic leftovers. The plastic bag they put on an extra pile to be washed and used for planting later. On top of the pile the teacher asks the children to empty their soil. In the rainy season the teacher covers the pile with a plastic</p>	<p>2 Students empty first their kitchen leftovers and other organic leftovers like grass, fruit peel onto the pile. They cover the pile with soil</p>	<p>25 minutes</p>
<p>3 Inside the compost pile the organic matter transforms into rich soil in about 2 months. In the transformation process when organic matter decomposes, heat is produced. Besides heat, oxygen and moisture is needed. Organic leftovers carry moisture by themselves. Only in dry climate some water has to be added. To introduce oxygen, the pile has to be turned every 7 days</p>		<p>3 Children are asked to wash their hands. Back in the classroom the teacher explains what the decomposing process needs. Teacher organizes how to attend the compost pile, so good compost can be produced</p>	<p>3 Children repeat what is needed for compost production</p>	<p>8 minutes</p>





SUBJECT : HEALTH EDUCATION  
 UNIT 2 : ENVIRONMENTAL CLEANLINESS

## Grade IV

Lesson 5 Process of decomposition of organic leftovers

Objectives At the end of this lesson, students will be able to

Knowledge

- explain how organic matter decomposes
- explain the qualities of compost as a fertilizer
- organize compost production in their neighbourhood

Skill

- preparing compost in the school
- start composting in the neighbourhood

This lesson also helps the students to develop the following attitudes

Attitudes

- be aware of the advantages to prepare compost

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D Learning Outcome	E. Estimated Time
1 All organic matter decomposes. In a compost pile several layers of organic waste is being piled up to produce compost (Card 23) In that process heat is generated up to 70 C, which destroys all pathogen germs. Oxygen and moisture is needed in the decomposing process. Organic leftovers contain natural moisture. Only in rainy season we have to prevent that too much water gets onto the pile, this would initiate a fouling process in the dry season some moisture has to be added (Card 24) To introduce oxygen the pile has to be moved/ventilated (Card 25). If the compost pile accidentally becomes wet, the frequent turning should be increased. This has to be done in a way that the outside of the compost pile will now be in the middle. This way the organic leftovers decompose and pathogen germs can be destroyed. The pile has to be turned 3 to 4 times. In order to avoid bad smells and to keep the heat in the pile it can be covered with straw, dry leaves or soil (Card 26). After 2 months the compost is ready (for more information see background information)	Card 23-26 Compost pile Shovel	1 Teacher asks the children to explain how compost can be prepared. She/he holds up the cards, one by one and lets the children describe and give reasons for the actions presented on the cards. Teacher helps if needed. Then he/she asks, what do you think happens inside the pile. Even if the children do not know the teacher takes them out to look at the pile to feel it, to turn it and if needed sprinkle some water on it. Teacher explains the decomposing process.	1 Students explain how a compost pile should be treated. The children explain that touching and turning the compost pile, they realize that the compost is warm and the leftovers start decomposing.  Children wash their hands.	20 minutes
2 About 60-75% of waste generated in urban areas, is organic matter. Compost is a very good fertilizer as it <ul style="list-style-type: none"> <li>- enriches the soil with micro nutrients</li> <li>- makes heavy soil lighter and improves Sandy ground texture</li> <li>- increases the retention of water (see background information for more information)</li> </ul>		2 Teacher repeats that with compost production much less waste is generated. Teacher asks for what compost is used. Teacher explains why compost is the best fertilizer.	2. Children repeat that compost is used as a fertilizer and name its qualities.	5 minutes
3 If the neighbours can get convinced, compost can be produced within the neighborhood by members of the community, when an adequate place has been selected. All material - anybody can recycle - should be collected in a special container. It should not be mixed with the waste. The rest of leftovers have to be disposed properly in containers. The waste already dumped in the streets should not be separated anymore by the children.	Exercise book Pen	3 Teacher asks children how they could organize compost production in their home or in the neighbourhood. Teacher forms groups and lets them discuss how to organize compost production. If some groups finish early they are asked to organize cleaning campaign considering recycling.	3 Children name adequate places for compost piles. Children write down their ideas on how to organize compost production in the neighbourhood.	10 minutes
4 See above		4 Teacher asks the groups to read out their findings.	4 Children discuss how to organize compost production in the neighbourhood.	5-10 minutes
5		5 Children are asked to start a compost pile at home or in the neighbourhood.		



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade IV**

**Lesson 6: Cleaning activities in the surrounding of the school**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:** a) explain the process of decomposition of organic leftovers  
 b) explain the activities to reduce waste production in our neighbourhood

**Skill:** a) clean up the surrounding of our school  
 b) organize and participate in cleansing campaigns in the neighbourhood

This lesson will also help the students to develop following attitudes

**Attitude:** a) realize own's responsibilities in keeping our home, neighbourhood and locality clean  
 b) be aware of the value in most leftovers

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1. Turning the compost, the outside of the pile should become the inside of the new pile. In the second week the decomposition process can be definitely recognized in vegetable - and most fruit leftovers.	Shovel or sticks Compost Pile	1. Teacher tells children that they will spend the day outside the classroom. First they are asked to turn the compost pile and comment on what changes they notice.	1. The children turn the compost pile and express that most of the vegetable matter is decomposing.	8 minutes
2. In the neighbourhood leftovers can be separated into organic matter for composting and inorganic matter for recycling. Only some inorganic matter has to be disposed in the containers.		2. Teacher asks 2 to 3 children to show their own compost pile to the whole class. Only those should be chosen, whose pile are very near the school.	2. Some children show their compost pile and other waste reduction activities to the whole class, explaining what they do.	15 minutes
3. If everybody feels responsible and acts accordingly, our neighbourhood can be kept clean.	Brooms Baskets Shovels	3. Teacher forms groups and lets children clean up the surrounding of the school bringing the collected waste to the next container. If possible a peon should help if the distance to the next container is too far.	3. Children clean up the surrounding of the school.  Children wash their hands with water and soap.	22 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade IV**

**Lesson 7: The quality of water in the neighbourhood**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge.**

- a) name the different uses of water
- b) name different water sources in the neighbourhood
- c) describe how water can become contaminated in urban areas

**Skill.**

- a) point out water contaminating activities

This lesson will also help the students to develop following attitudes.

**Attitude:**

- a) be aware of contamination of water sources
- b) appreciate clean water

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 The compost pile has to be turned every 7 days</p> <ul style="list-style-type: none"> <li>- to ventilate it with oxygen,</li> <li>- to destroy the flies' eggs on the outside,</li> <li>- to give the outer layer the chance to decompose</li> </ul> <p>When everything is decomposed light black compost is produced and can be used as a fertilizer.</p>	Shovel	1 A group of four children are asked to turn the compost pile and explain to the class what they found	1 Some children turn the compost pile then wash their hands. These children tell their findings.	5 minutes
<p>2 Different water sources in the home &amp; in the neighbourhood</p> <ul style="list-style-type: none"> <li>- Tap water</li> <li>- Pumps</li> <li>- Wells</li> <li>- Ponds</li> <li>- River</li> </ul>	Blackboard and chalk	2. Teacher asks the students to name different water sources in their homes and in the neighbourhood. He writes them down on the blackboard one by one. The students copy it into their note book	2 Children name the different sources of water in their homes and neighbourhood	6 minutes
<p>3. If ponds and rivers are contaminated, animals as well as human being will be harmed.</p>		3. The teacher asks: if their drinking water is clean and where it is coming from	3 Children reflect on the quality of their drinking water	6 minutes
<p>4 Water becomes mostly contaminated by dumping waste or toxic substances from industries, i.e. carpet industry into it and leading sewage water into it.</p>	Book My World Page 61/62	4 Teacher asks children to read page 61/62, repeat what they understood and tell similar experiences from their neighbourhood.	4 Children explain how water becomes contaminated in urban areas.	12 minutes
<p>5 The circles represent a contaminating action. They have to be glued onto the picture at the corresponding place</p>	Games 11 + 12 Scissors Glue	5 Teacher asks to take out the pictures 11 and 12 out of the game pocket in the book. He/she explains which circles represent contamination. He/she asks the children to cut out the circles and glue them onto the contaminating actions	5 Children point out contaminating human actions and explain how water becomes polluted	13 minutes
<p>6. Uses of water in the neighbourhood</p> <ul style="list-style-type: none"> <li>- to drink + to cook</li> <li>- to clean pots and floors</li> <li>- to use in water toilets</li> <li>- to use for personal hygiene</li> <li>- to wash clothes</li> <li>- to irrigate</li> <li>- to serve to house animals</li> <li>- to wash carpets</li> <li>- to dye carpets</li> <li>- to use for constructions</li> </ul>		6 Children are asked to list the reasons why water is important and what it is used for	6. Children name different uses of water	3 minutes



UNIT 2: ENVIRONMENTAL CLEANLINESS

Grade IV

Lesson 8: How to use water consciously

Objectives: At the end of the lesson the students will be able to:

Knowledge:

- a) give examples how contaminated water can affect the health and the inner well-being of living beings
- b) name the possible use of water in urban areas
- c) explain how water should be used consciously in areas (economically)
- d) name rules for preserving clean drinking water at home and at school

Skill:

- a) prepare compost
- b) clean up the school compound

This lesson will also help the students to develop following attitudes.

Attitude:

- a) aware of the importance of water in urban areas.
- b) taking interest in preserving clean drinking water

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Contaminated water not only looks ugly and smells badly it is also harmful in many ways, we cannot wash vegetable or fruit in it, certainly we can't take it for drinking or cooking. If it is very contaminated with toxic substances we can't irrigate with it or wash our clothes. Then even the animal can't drink from it.		1 Describe contaminated water in urban areas and explain how it affects the living beings.	1 Children give examples how contaminated water affects the living beings.	5 minutes
2 Uses of water in the neighbourhood: - to drink + to cook - to clean pots and floors - to use in water toilets - to use for personal hygiene - to wash clothes - to irrigate - to serve to house animals - to wash carpets - to dye carpets - to use for constructions	Chalk Blackboard	2 Teacher asks to read the list of possible uses of water in the neighbourhood.  Teacher comments on the different uses, completes the list and asks children to add the missing points to their list.	2 Children read the list of possible use of water in their urban neighbourhood and complete their lists.	8 minutes
3. In urban areas many people need water for different purposes. The water often comes from very far to the city and is very valuable.		3. Teacher asks the children about their water situation at home. He/she asks for reasons why they don't have enough water.	3 Children say that there is a scarcity of drinking water in urban areas.	5 minutes
4 The population has to use water economically and prevent contamination.		4 Teacher asks what we could and should do about the water.	4 Children say that water should be used consciously, which means it should be used rather economically and kept clean.	5 minutes
5 Methods of preserving water - use water from safe source - boil it if you can or filter it - store it in a clean pot/jar - use it economically - not to touch with dirty hands		5 Teacher asks how to make sure you do not get sick from drinking water, how should we preserve it in our home and in school. Children are asked to follow these rules at home and in the neighbourhood.	5 Children give rules how to preserve drinking water and follow them.	5 minutes
6. Most of the organic leftovers should be decomposed by now.	Shovel	6. Teacher asks children to go out to the compost pile and turn it. He/she asks what they see.	6. Children turn the compost pile and report on their findings.	8 minutes
		7 Children are asked to pick up papers in the courtyard and place them in the container.	7 Children clean up the school courtyard and wash their hands.	9 minutes





### 3.8 LESSON PLANS GRADE V

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#### ENVIRONMENTAL EDUCATION

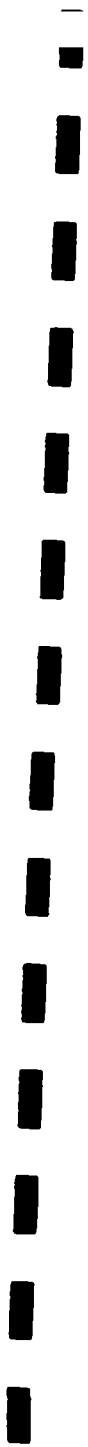
##### Unit 4: Environmental Pollution

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(as in remote villages today)
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#### HEALTH EDUCATION

##### Unit 2: Environmental Cleanliness

- Lesson 1: Hygienic risks in the surroundings
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**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL POLLUTION**

**Grade V**

**Lesson 1: Management of waste many years ago (as in remote villages today)**

**Objectives:** At the end of the lesson the students will be able to:

- Knowledge:**
- a) explain how organic leftovers can be used as food for animals and/or transformed into compost
  - b) explain how a clean surrounding and healthy food affects a family's well being
  - c) name hygienic risks which arise if our surrounding is not cleaned regularly
  - d) name nutritional defects if our fields are not properly fertilized
  - e) classify forms of (organic) waste handling into those which damage and those which protect our environment

**Skill:** a) identify organic leftovers being dumped in the neighbourhood

This lesson will also help the students to develop the following attitudes:

- Attitude.** a) be curious about finding ways to avoid waste production

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 Several years back the only waste produced by a household was organic which means leftover from food or plants. In some remote villages this is still the case, even today. The kitchen waste was thrown outside of the house (1st picture) where animals could eat from it (2nd picture). The surrounding of the house was cleaned regularly and leftovers together with the animal's manure was collected (3rd picture) and brought to a compost pile (4th picture). The compost produced from the organic leftovers were put onto the fields as a fertilizer (5th picture). This way the family lived in a clean environment, could eat well grown vegetable. Therefore they stayed healthy. This way all waste produced in the household was transformed into compost and served as a fertilizer for the fields which produce good and healthy food. No extra waste is generated. Nothing has to be burnt, buried or dumped anywhere.</p>	<p>6 Cards No 1-6 from "Natural Cycle"</p>	<p>1 a. The teacher shows pictures to the children one by one and lets them describe what they see. After showing one card, he/she asks the pupils to come in front and hold up the card until 6 children are lining up in front holding up the cards in numeric order.</p> <p>b. Teacher asks what kind of waste is being produced on the pictures.</p> <p>c. Teacher asks what happened to the waste produced in each house.</p> <p>d. Teacher asks to describe the surrounding of the house and the health of the people living in the house.</p>	<p>1 a. Children describe the 6 pictures of the natural cycle.</p> <p>b. Children explain what organic waste is.</p> <p>c. Children say that only natural leftovers (organic) are generated in the remote villages.</p> <p>d. Children explain that the leftovers are transformed into compost and that no waste remains.</p> <p>e. Children say that the surrounding is clean and the family healthy.</p>	<p>15 minutes</p>
<p>2 In the same situation several years back or still today in remote villages, the hygienic situation deteriorates, if the organic leftovers and the manure are not cleaned up regularly (Card 2a). Flies and rats appear attracted from rotting waste, they transmit diseases to the people. If no compost is being produced and applied on the fields, the soil becomes poor and the vegetable grown on the field is not very strong (Card B). The family gets sick because of the unhygienic surrounding and the little food produced on the fields.</p>	<p>5 Cards No 1, 2a, 7, 8, 9 from "Destroying the Natural Cycle" (3)</p>	<p>2 a. The teacher shows the pictures of this cycle to the children one by one asking them to describe what they see.</p> <p>b. Teacher asks why the boy looks so sick.</p> <p>c. Teacher asks why the field does not carry more and stronger plants.</p> <p>d. Teacher asks why the family does not look healthy.</p>	<p>2. a. Children describe the 5 pictures of the set "Destroying the Natural Cycle".</p> <p>b. Children explain that a dirty surrounding is a hygienic risk for the people.</p> <p>c. Children explain that without adding fertilizers to the soil plants can't be healthy.</p> <p>d. Children explain that the unhygienic environment and the lack of sufficient well grown food makes them weak and sick.</p>	<p>15 minutes</p>



**SUBJECT: ENVIRONMENTAL EDUCATION****UNIT 4: ENVIRONMENTAL POLLUTION****Grade V (continued)**

**Lesson 1: Management of waste many years ago (as in remote villages today)**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) explain how organic leftovers can be used as food for animals and/or transformed into compost
- b) explain how a clean surrounding and healthy food affects a family's well being
- c) name hygienic risks which arise if our surrounding is not cleaned regularly
- d) name nutritional defects if our fields are not properly fertilized
- e) classify forms of (organic) waste handling into those which damage and those which protect our environment

**Skill:**

- a) identify organic leftovers being dumped in the neighbourhood

**This lesson will also help the students to develop the following attitudes:**

**Attitude:**

- a) be curious about finding ways to avoid waste production

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>3 Not cleaning up the surrounding regularly and not producing compost affect our surrounding in two ways:</p> <p>a. it looks and smells bad and is a hygienic risks to the people around, as organic leftovers foul, breed flies, attract flies and rats and contain a lot of pathogen germs</p> <p>b the soil deteriorates</p> <p>A clean surrounding eliminates hygienic risks. Fields being fertilized with compost produce more and bigger plants, vegetable and rice and other grains</p>	<p>Cards 1 - 9 and 2a</p>	<p>3. Teacher asks 5 children in front to hold card 2 to 6 very high up, 5 more children to hold up 2a, 7, 8 and 9 a little lower, standing in front of the first 5 children. Another child with picture 1 is the first one in the row.</p> <p>a. Teacher asks to compare the first set of cards to the second one He/she asks for the damages/benefits that occur to the surrounding</p> <p>b. Teacher asks how we are affected by our surrounding</p>	<p>3 a Children explain how organic leftovers can affect our environment in a positive or in a negative way</p> <p>b Children name the advantages of cleaning up the surrounding and of producing compost for the fields.</p>	<p>10 minutes</p>
<p>4 Waste has to be cleaned up regularly, compost could be produced</p>		<p>4 Teacher asks how we should handle waste in the village. Teacher asks several children to answer the question.</p> <p>As a homework children are asked to identify dumped kitchen leftovers or other organic matter.</p>	<p>4. Children repeat that waste should be cleaned up regularly to avoid/reduce hygienic risks Compost should be produced by organic leftovers and used as fertilizer Children identify organic waste being dumped in the streets.</p>	<p>5 minutes</p>



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL POLLUTION**

Grade V

Lesson 2 Ways of treating waste in the city and the impact on the urban environment and its people

Objectives: At the end of the lesson the students will be able to:

Knowledge

- a) explain how organic waste should be treated in the city
- b) describe the waste generated in the city
- c) name consequences of improper waste handling in the city
- d) develop rules for proper waste handling in the city

Skill.

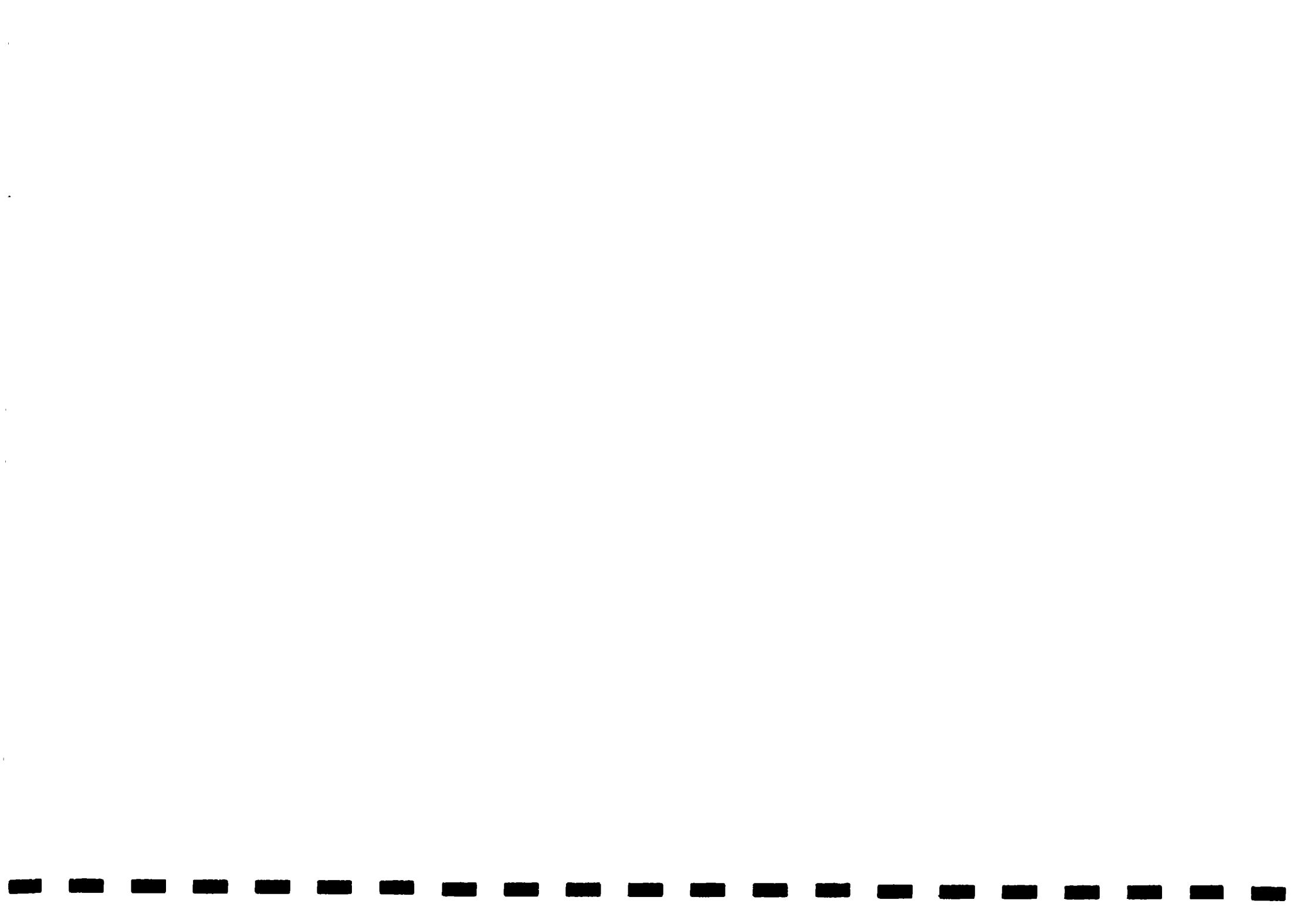
- a) identify organic leftovers being dumped in the neighbourhood

This lesson will also help the students to develop the following attitudes:

Attitude:

- a) realize the necessity to handle waste in the city responsibly

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1. If in the city people dump their organic waste in open places, a lot of waste is generated and many people are affected, because it looks ugly, smells bad, contains germs, attracts flies, rats and cockroaches and is a hygienic risk to the people themselves. Even in urban areas, - at least from a big part of the waste, - compost can be produced from organic leftovers. This way no waste is being generated and a fertilizer can be produced. If this is not possible, the leftovers should be brought to collecting points or to the next container.</p>		<p>1 a Children are asked to describe places in their surrounding where organic waste is being dumped and describe how it affects them</p> <p>b. Teacher asks the children how to improve the situation</p>	<p>1 a Children name negative effects of organic waste being dumped in the city</p> <p>b Children explain that compost can be produced with organic leftovers. They say, if this is not possible those leftovers should be dumped into the container</p>	<p>8 minutes</p>
<p>2. People in the city lose the sense of responsibility for their surrounding, they feel only responsible for their house + garden. Their neighbourhood is seen as a part of the city, where others, government and municipality, are responsible. On the other hand a lot more and more different kind of waste is being produced in cities today. People buy their food in plastic bags and in bottles, in glass, paper, cardboard, tins which are thrown away after each use often right after buying (Card 10). With all this waste being dumped the waste problem comes into existence. People are affected in their physical + mental wellbeing (Card 11).</p> <p>Especially children playing in the streets run a high risk of getting sick by cutting themselves or through pathogen germs in the decomposing organic waste (Card 12). Compost is not being produced from organic leftovers plants do not get fertilizer and can't be strong (Card 13). Consequently families living in that surrounding feel weak or even sick (Card 14).</p>	<p>Cards 10 - 14 "City View"</p>	<p>2 a. Teacher shows the cards to the children one by one and lets them describe what they see. Again children are being asked to come in front to hold up the cards in numeric order</p> <p>b Children are asked to describe the cards in a consequence (like a story)</p> <p>c Children are asked to give their opinions on the actions presented on each card. The teacher might help in asking</p> <p>How can it affect us if waste is thrown out of the windows (Card 10)?</p> <p>In what way are people in the streets being affected by waste lying around (Card 11)?</p> <p>Which are the risks for children playing in dumped waste (Card 12)?</p> <p>Why do the plants look so sad (Card 13)?</p> <p>Why does the family look so weak, sad and sick (Card 14)?</p> <p>Teacher asks several children and helps if needed to point out hygienic risks, environmental risks &amp; effects on our inner well-being.</p>	<p>2. a Children describe what they see on the cards</p> <p>b Children explain what kind of waste is generated in the cities and how it is handled.</p> <p>c. The children explain the different consequences if waste in cities is not treated properly</p>	<p>20 minutes</p>





**SUBJECT: ENVIRONMENTAL EDUCATION****UNIT 4: ENVIRONMENTAL POLLUTION****Grade V (continued)****Lesson 2 Ways of treating waste in the city and the impact on the urban environment and its people**

**Objectives:** At the end of the lesson the students will be able to.

**Knowledge:**

- a) explain how organic waste should be treated in the city
- b) describe the waste generated in the city
- c) name consequences of improper waste handling in the city
- d) develop rules for proper waste handling in the city

**Skill.**

- a) identify organic leftovers being dumped in the neighbourhood

This lesson will also help the students to develop the following attitudes:

**Attitude.**

- a) realize the necessity to handle waste in the city responsibly

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>3 - Everybody should generate as little leftovers as possible, being aware what to buy for example no plastic bags, little non-returnable bottles, no tin food, little wrapping paper etc</p> <p>- The organic waste being generated should be used for compost production and applied as fertilizer.</p> <p>- The other leftovers like glass, tins, paper and plastic bags should be given to be recycled. It can be used as prime material to make new glass, paper, tins...</p> <p>- The rest of leftovers should be disposed properly in the containers or in other collecting points.</p>		<p>3 Teacher asks the children to consult with each other (2 to 4 children) how the situation could be improved in the city and write down rules for better waste management in urban areas</p>	<p>3 Children discuss and write down rules for proper waste management in the city</p>	<p>10 minutes</p>
<p>4 See No 3.</p>	<p>Chalk Blackboard</p>	<p>4 Teacher collects the proposals and completes the rules. He/she writes onto the blackboard.</p> <p>a. reduce waste generation</p> <p>b. organic waste for composting</p> <p>c. inorganic waste to be used as prime material</p> <p>d. inorganic waste which cannot be recycled to be disposed in containers</p> <p>e. organize cleaning campaigns</p> <p>Teacher explains each rules</p>	<p>4 Children copy the rules for proper waste management in the city</p>	<p>7 minutes</p>
<p>5. Those parts of inorganic leftovers which can be recycled and turned into useful objects can be seen as prime material.</p>		<p>5. As a homework children are asked to identify prime material in the waste dumped in the streets and write them down</p>	<p>5 Children identify leftovers which can be used as prime material in the waste piles and write them into their exercise book.</p>	

Note to teacher. If there is more leisure time the activities should not be restricted to one lesson



## SUBJECT: ENVIRONMENTAL EDUCATION

## UNIT 4: ENVIRONMENTAL POLLUTION

## Grade V

Lesson 3: Treatment of waste and its impact on the environment

Objectives At the end of the lesson the students will be able to:

Knowledge.

- a) name different ways of treating waste
- b) name harms of different ways of treating waste
- c) explain that the only really proper ways of waste handling are reducing waste production, composting and recycling

Skill:

- a) acting out solutions for proper waste handling

This lesson will also help the students to develop the following attitudes:

Attitude.

- a) realize that there is no ideal place for waste
- b) realize that the best way of keeping the surrounding clean is by not producing waste or by composting and recycling

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 Carrying waste out of the city does not harm directly its inhabitants any more. But it still can harm them and others indirectly. There are different ways of treating waste, which cause different harms.</p> <p>A) Waste can be dumped and covered with soil at a place not too far from the city (landfill site). If it is covered properly it does not directly harm the people living around it. But the land cannot be used for other purposes and even with a lot of care the groundwater will be affected at least to some degree. If the landfill site is not being managed properly, the ground water can be badly affected and also people in the city will be affected. Dumping waste at the landfill site without covering it with soil is a high hygienic risk for the people living nearby.</p> <p>B) Waste also can be burnt. The machine which burns waste is called incinerator. This contaminates the air we breathe. Up to now filters can only eliminate some contamination. Besides as the waste in Nepal contains a lot of moisture (as 60-70% is organic waste) it does not burn easily and needs extra energy like petrol.</p>		<p>1 The teacher tells the children that they will today examine what is being done with the waste that is carried out of the city. In the next lesson they will go back to the city, check the list of leftovers that can be used as prime material.</p> <p>a) Teacher asks the children what they think can be done to the waste, once it is collected.</p> <p>b) Teacher asks to name the hygienic and environmental risks deriving from different ways of treating waste.</p> <p>A landfill site B using incinerator</p>	<p>1 a. name ways of treating waste</p> <p>b. name the harms from waste treatment</p> <p>A Disposing waste on a landfill site will contaminate the ground and to some extent the groundwater.</p> <p>B Burning waste in an incinerator contaminates the air and consumes energy.</p>	8 minutes



**SUBJECT: ENVIRONMENTAL EDUCATION****UNIT 4: ENVIRONMENTAL POLLUTION****Grade V (continued)****Lesson 3 Treatment of waste and its impact on the environment**

**Objectives** At the end of the lesson the students will be able to.

**Knowledge**

- a) name different ways of treating waste
- b) name harms of different ways of treating waste
- c) explain that the only really proper ways of waste handling are reducing waste production, composting and recycling

**Skill**

- a) acting out solutions for proper waste handling

This lesson will also help the students to develop the following attitudes:

**Attitude:**

- a) realize that there is no ideal place for waste
- b) realize that the best way of keeping the surrounding clean is by not producing waste or by composting and recycling

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>2 The best solution is to find an adequate place for waste and cover it with soil. Such a land fill site, properly managed, seems to have less hygienic risks and costs less than an incinerator. But an ideal place for waste does not really exist. There are only more or less acceptable places. If we say waste should be properly disposed, we can try but never succeed totally. Environmental - and hygienic risks can only be reduced by conscious waste treatment; they cannot be eliminated. We never want to have waste disposed in the mountains (52) nor in the fields (54). Dumped in the river, the water becomes very contaminated, fishes die, it smells bad and affects all people living near it (53). It is very difficult to find a place where we could accept a waste disposal. The best solution is to produce as little as possible waste, to prepare compost and to recycle as many waste items as possible. For the rest, a more or less acceptable place has to be found. It needs then careful preparations before disposing of waste in order to prevent the contamination of groundwater. To keep the hygienic risks as low as possible, the disposal of waste has to be done properly, taking extra care before - and in the rainy season.</p>	<p>Card 51 52, 53, 54</p>	<p>2 Teacher asks again what could be done with the waste where it could be brought. He/she holds up the card 51 and asks the children where we could move it. He/she holds up card 52 and asks if the mountains would be an ideal place for waste. He/she holds up card 53 and asks if we could dump it into the river. He/she holds up the card 54 and asks if we could put it on the field. Teacher asks what harms the waste could do in these different places.</p>	<p>2 Children name different places where waste could be brought to. They identify that there is no ideal place for waste.</p>	<p>12 minutes</p>
<p>3 The leftovers complain that they are totally unwanted and have no ideal place to go to and that nobody likes them. And the boy answers: If you stay together as waste, nobody will really want you. The solution could be: separate the waste. Some should be transformed into compost, others should be recycled in the factories.</p>	<p>Card 55</p>	<p>3 The teacher holds up the card 55 and asks the children what they think the leftovers complain for. Teacher explains that we should try to find ways which are as harmless as possible. He/she asks the children what the most important rules are in waste management.</p>	<p>3 Children say that - producing very little waste - composting and - recycling are the most important and effective rules for proper waste handling.</p>	<p>5 minutes</p>
<p>4 The leftovers could be unhappy with each other as some smell bad, others look bad, others hurt with their sharp edges. Then the boy tells them the rules for proper waste handling which serves all of the leftovers.</p> <ul style="list-style-type: none"> <li>- to be careful when you go shopping not to produce waste</li> <li>- to make compost from organic leftovers</li> <li>- to reuse many items like plastic bags, bottles, boxes, tins etc</li> <li>- to give away for recycling</li> <li>- to dispose the rest properly into a container</li> </ul>	<p>Card 55</p>	<p>4 Children are asked to act out the picture 55. Some play out different parts of the waste, one the wise boy. Several groups can act out the play.</p>	<p>4 Children find ways of proper waste handling through acting.</p>	<p>20 minutes</p>



**SUBJECT: ENVIRONMENTAL EDUCATION****UNIT 4: ENVIRONMENTAL POLLUTION****Grade V****Lesson 4: Rules for proper waste handling**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) name leftovers which can be used as prime material to make usable articles
- b) name rules for proper waste handling in the city, pointing out the most effective ones
- c) develop a plan for individual possibilities to act responsibly in waste handling

**Skill:**

- a) perform at least one activity out of the plan for improvement of waste handling in the neighbourhood

**This lesson will also help the students to develop following attitudes.**

**Attitude:**

- a) realize that the most effective way of waste handling is reducing the quantity of waste generation

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 Out of used, even broken glass new objects of glass can be manufactured Under heat the glass melts and new objects will be formed Tins, paper, cardboard new objects can also be manufactured. Even out of some of the plastic items, like plastic bags, tubes can be manufactured. All those leftovers have to be collected separately and dissolved into small parts, mostly by using heat. Some of those leftovers can be just cleaned and used again or they can manually be transformed into new objects, adding some decorations</p>		<p>1 Teacher asks for those leftovers in the waste pile which can be used as prime material She/he asks for what those leftovers could be used and how they can be transformed</p>	<p>1 Children name leftovers, which can be recycled into new usable objects</p>	<p>10 minutes</p>
<p>2 Advantages of recycling leftovers like glass, tins, plastic, paper, cardboard</p> <ol style="list-style-type: none"> <li>a the dumped waste will not contain these leftovers, the waste pile will be reduced</li> <li>b. provide prime material for the production of usable objects instead of using up original prime material from natural resources Those natural resources and money can be saved Nepal is very limited in natural resources</li> <li>c As waste is being reduced the transportation of a lot of waste to the landfill site can be avoided Money and work can be reduced</li> <li>d. jobs can be provided to those people, scavengers, collecting glass, metal items, plastic, paper and cardboard and selling it to recycling industries</li> </ol>		<p>2 Children are asked to name the advantages of recycling inorganic leftovers Teacher helps the children with some hints so they can find as many advantages as possible themselves</p>	<p>2 Children name the different advantages of recycling leftovers</p>	<p>10 minutes</p>





**SUBJECT: ENVIRONMENTAL EDUCATION****UNIT 4: ENVIRONMENTAL POLLUTION****Grade V (continued)****Lesson 4: Rules for proper waste handling**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) name leftovers which can be used as prime material to make usable articles
- b) name rules for proper waste handling in the city, pointing out the most effective ones
- c) develop a plan for individual possibilities to act responsibly in waste handling

**Skill:**

- a) perform at least one activity out of the plan for improvement of waste handling in the neighbourhood

**This lesson will also help the students to develop following attitudes.**

**Attitude:**

- a) realize that the most effective way of waste handling is reducing the quantity of waste generation

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
3 In a city it is very important to dispose waste properly as a lot of waste is being produced and many people live closely together. Most effective - because work-and money saving-is to generate as little waste as possible which means to consume consciously. The second step would be to produce compost out of organic leftovers, which reduces the waste by up to 60 to 70%. And to recycle those inorganic leftovers which can be recycled like glass, paper, cardboard, tins. Then only very little waste is being produced which has to be disposed in containers or collecting points.		3 Teacher asks to name rules for proper waste management and to point out the most effective way to reduce waste in the streets.	3 Children name the rules for proper waste management and explain how effective they are.	10 minutes
4 See rules under (3)		4 Teacher asks which rule the children could follow in their homes and their neighbourhood. Teacher forms little groups of 2-5 children and lets them discuss how they can follow the different rules.	4 Children pick out one activity of reducing waste in the neighbourhood and plan how they can start to become active.	10 minutes
5 Following the rules different activities can be organized.		5. Children are asked to organize one activity according to the plans as a homework.	5 Children are starting a compost pile or separating their leftovers at home and their neighbourhood etc.	5 minutes

**Note to teacher:** If time permits the teacher can take the children to the paper recycling factory in Bhaktapur.



**SUBJECT: ENVIRONMENTAL EDUCATION****UNIT 4: ENVIRONMENTAL POLLUTION****Grade V**

**Lesson 5: Individual possibilities of responsible actions in waste handling**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) repeat rules for proper waste handling
- b) discuss different plans of proper waste handling
- c) describe the environment and its people if waste is handled responsibly
- d) discuss responsible actions

**Skill:**

- a) practice responsible actions in proper waste handling

**This lesson will also help the students to develop following attitudes.**

**Attitude:**

- a) be aware of several ways to reduce waste

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 a Waste can be reduced by buying consciously, i.e. take the own bag, bottle or other containers for shopping. Tin food or food wrapped in a lot of paper, plastic or cardboard should be avoided.</p> <p>b Compost could be organised in the home or between different homes, friends and neighbours have to be contacted</p> <p>c Leftovers can be classified and stored on piles or in boxes, baskets or plastic bags and give/sold to scavengers passing by</p> <p>d Rules of proper waste handling should be passed onto neighbours and friends</p> <p>e For one day a week a cleaning campaign can be organised between friends and neighbours</p>		<p>1 Teacher writes with the help of the children different rules onto the blackboard</p> <ul style="list-style-type: none"> <li>- reduce waste generation</li> <li>- organic waste for composting</li> <li>- inorganic waste for recycling</li> <li>- rest waste to be disposed properly</li> <li>- cleaning campaigns to be organised</li> </ul>	<p>1 Children repeat the rules for proper waste handling</p>	<p>7 minutes</p>
<p>2 The plans for responsible action in waste management could be to go shopping with a bag, bottle and other needed containers, to reuse part of our waste or to give it to others for recycling, to make compost and to dispose it properly</p>		<p>2 Teacher asks to present their plans: She/he asks the opinion of the others judging if the plan is realistic</p>	<p>2 Children evaluate the plans for personal involvement in proper waste handling</p>	<p>8 minutes</p>



**SUBJECT: ENVIRONMENTAL EDUCATION****UNIT 4: ENVIRONMENTAL POLLUTION****Grade V (continued)****Lesson 5: Individual possibilities of responsible actions in waste handling**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) repeat rules for proper waste handling
- b) discuss different plans of proper waste handling
- c) describe the environment and its people if waste is handled responsibly
- d) discuss responsible actions

**Skill:**

- a) practice responsible actions in proper waste handling

This lesson will also help the students to develop following attitudes.

**Attitude:**

- a) be aware of several ways to reduce waste

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
3 If the above mentioned rules are being followed only very little waste will be collected and no waste lies around the streets, empty properties or rivers		3 Teacher asks the children to describe their surrounding if we all follow the rules and to compare it with the situation now	3 Students describe how they feel in a clean and how in a dirty surrounding	10 minutes
4. Following the rules, mentioned above, people can act responsibly concerning their waste generation. Compost is being produced to be used as fertilizer (Card 15 + 17) and all other leftovers which can be recycled are collected separately to be sold to scavengers (Card 15). The rest of the waste is disposed in containers (Card 16). The surrounding stays clean. This way the people don't run hygienic risks and eat healthy food (Card 18)	Cards 15-18 waste handling in the city	4. a Teacher shows the cards, one by one and lets the children describe. 4 children are asked to come in front to show the cards in numeric order.  b. Teacher asks the children in what way people act responsibly in picture 15 + 16  c Teacher asks which effects this responsible waste handling has for the plants and the people.	4 a Children describe the pictures  b Children identify that people act according to the rules for proper waste handling  c Children explain that the plants are strong and healthy because compost is being given to fertilize them & that that the family is healthy, because their surrounding is clean and their food healthy	15 minutes
5 Scavengers pick out those items which can be sold for recycling, like glass, paper, cardboard, plastic and metal items. In factories, mostly in India, new glasses, new papers, new plastic and metal items can be prepared		5 Ask what and where the scavengers find the items for recycling	5 Children say that glass, paper, plastic, cardboard and metal items can be recycled	5 minutes



Grade V

Lesson 6: Planning of activities to solve the waste problem in the neighbourhood

Objectives: At the end of the lesson the students will be able to:

Knowledge:

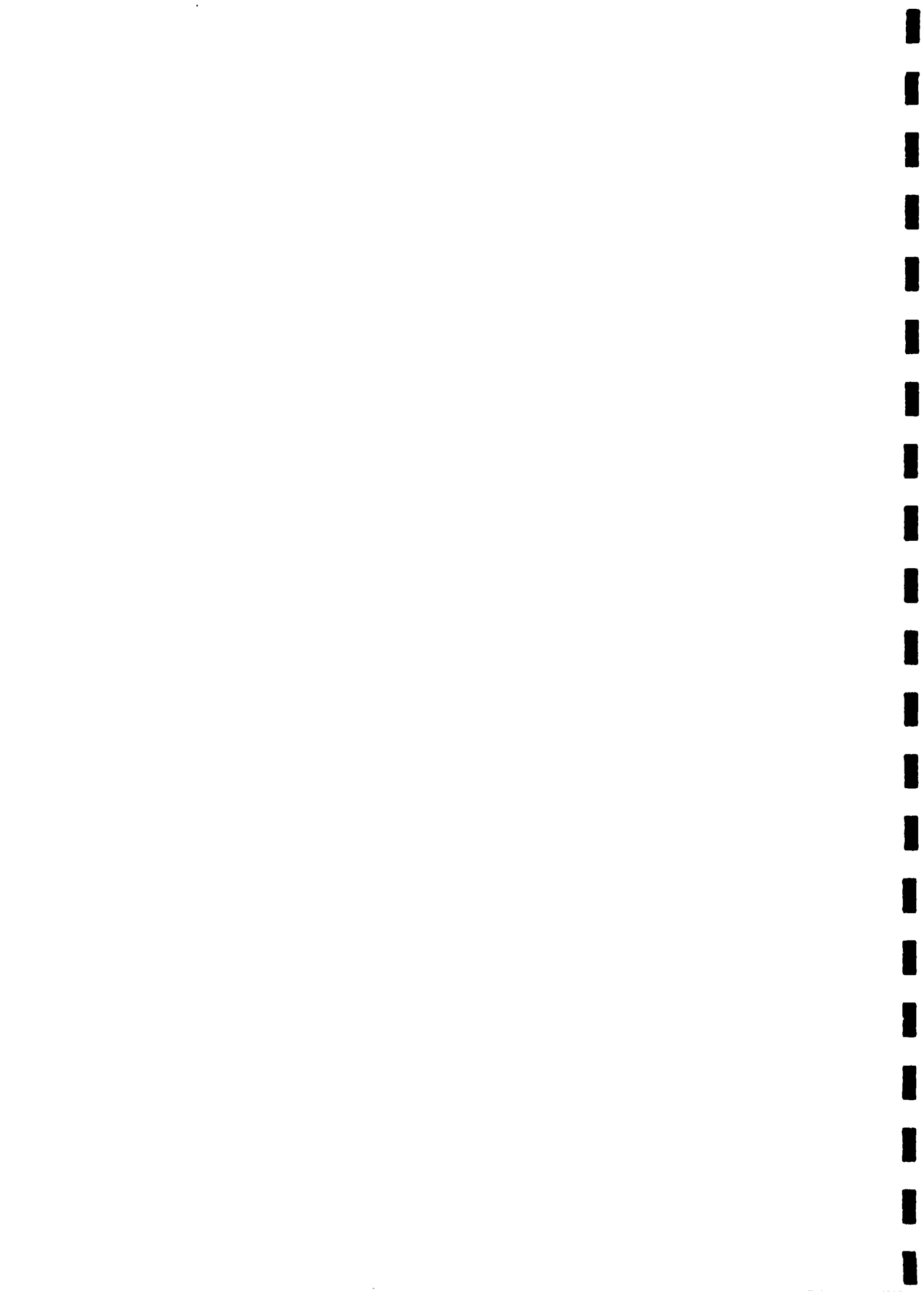
- a) report on own activities of responsible waste handling in the neighbourhood
- b) describe ways how to follow the rules for proper waste handling in the neighbourhood
- c) write a paper addressing to family, friends and neighbours in the neighbourhood explaining how to co-operate in solid waste management

This lesson will also help the students to develop following attitudes.

Attitude:

- a) be interested in finding ways to protect the surrounding from pollution through waste
- b) be interested to include neighbours in proper waste handling activities

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 In the city many people produce waste Each one generates even more than in the village buying more potential waste like glass, metal, plastic, paper, cardboard At the same time people feel less responsible than in the village for the streets and open places outside their house. Living closely together many people are affected by the waste lying around</p>		<p>1 Teacher asks the children in what way city life intensifies the danger of creating a waste problem</p>	<p>1 Children repeat how the waste problem comes into existence in the cities and how it affects the urban population</p>	<p>5 minutes</p>
<p>2 Following the rules the children might have reduced the waste being generated by being aware what they buy or by preparing a compost pile or classifying waste for recycling or cleaning up their house and part of the surrounding and properly disposing of the waste</p>	<p>Blackboard Chalk</p>	<p>2 Different children are asked to report on their experiences in following rules for proper waste handling.</p>	<p>2. Children explain how they reduced the waste or cleaned up the neighbourhood and disposed of the waste</p>	<p>7 minutes</p>
<p>3 a Waste can be reduced by buying consciously, i.e. take the own bag, bottle or other containers for shopping. Tin food or food wrapped in a lot of paper, plastic or cardboard should be avoided</p> <p>b Compost could be organised in the home or between different homes, friends and neighbours have to be contacted</p> <p>c Leftovers can be classified and stored on piles or in boxes, baskets or plastic bags and give/sell to scavengers passing by</p> <p>d Rules of proper waste handling should be passed onto neighbours and friends</p> <p>e For one day a week a cleaning campaign can be organised between friends and neighbours</p>		<p>3 Teacher forms groups which are asked to answer the following questions.</p> <p>Group a How to reduce the waste production in your daily life?</p> <p>Group b: Where and with whom could you organize compost production?</p> <p>Group c How can you organize that those leftovers which can be recycled, get collected?</p> <p>Group d How could you include other people from your neighbourhood in proper waste handling</p> <p>Group e How can you organize cleaning campaigns in your neighbourhood</p> <p>If forming groups takes too long the children should discuss the questions with their table mates</p>	<p>3 Children tell their individual possibilities of proper waste handling in their urban neighbourhood</p>	<p>18 minutes</p>
<p>4. See 3.</p>		<p>4 Teacher asks each group to present their findings and discusses with all children If necessary teacher gives some ideas on how to follow each rule</p>	<p>4 Children discuss the different possibilities of active involvement.</p>	<p>10 minutes</p>
<p>5 To ask family and friends + neighbours in the neighbourhood for cooperation, a paper can be developed with detailed instructions.</p>	<p>Exercise book and pen</p>	<p>5. The children are asked to write down the individual possibilities to follow each rule directed to family and friends and neighbours in the neighbourhood Children are asked to finish their work at home</p>	<p>5 Children write down the rules and give examples how to fulfill them in their neighbourhood</p>	<p>5 minutes</p>





**Grade V**

**Lesson 7 Ecological interdependencies**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge.**

- a) explain the human role in polluting the urban environment with waste
- b) explain ecological interdependencies
- c) compare a mobile with the ecological balance
- d) describe how a mobile can be built

This lesson will also help the students to develop following attitudes

**Attitude**

- a) feel encouraged to disseminate rules for proper waste handling to family, friends and nei
- b) understand that pollution of water and ground with waste affects all the living beings (human beings, animals, plants)

A Subject for Teaching	B. Material Needed	C. Teaching Activities	D Learning Outcome	E. Estimated Time
1 The report addressed to friends, family and neighbours should be clear enough so they will know how to cooperate. The rules for proper waste management should be explained.	Homework prepared for this lesson	1 a Teacher asks some students to read their report addressed to family, friends and neighbours. Teacher asks the opinion of the children about the reports and asks them to select which is most effective for distribution.  b. The teacher reads the selected report again and each child is asked to improve its own one. The reports should be finalized at home.	1 a. Children discuss on the reports addressed to neighbours and select the best ones.  b Children improve their reports, adding and changing according to the selected ones.	10 minutes
2 Uncontrolled dumping pollutes our surrounding, the open places and ponds or rivers around us. In each water or field there is a natural ecosystem which gets disturbed by humans. An environment which is out of balance also affects humans, they have to drink polluted water, eat vegetable from polluted, imbalanced soil and breathe polluted air.		2 Teacher lets children repeat in what way uncontrolled dumping of all kind of waste effects our environment. He/she asks how the quality of life suffers under polluted water and polluted open places and fields. He/she makes clear that humans are disturbing the natural balance in the surrounding fields and water.	2. Children describe the human role in polluting the environment.	5 minutes
3 We are dependent on our environment, so are the birds, animals and plants which means we have to take care of our environment and treat it well.	Book My World Page 71	3 Teacher distributes the books. Children are asked to read page 71 and to discuss the ecological interdependencies between the environment and all living beings.	3 Children read out of the book "My World" and explain ecological interdependencies.	10 Mins
4 A mobile consists of pictures or objects being tied to some sticks. Several sticks are binded to each other. The pictures or objects have to be moved until a balance is reached. By moving the parts again, the balance easily is destroyed. A mobile can be compared to our environment, as everything has a certain place and function, if we remove something the balance is disturbed (for example waste in the water destroys the life in the water of a river or pond).	Book My World Page 72	4 Children are asked to read page 72 and to explain what a mobile is and in what way a mobile can be compared to the environment.	4. Children explain that in a mobile a certain balance has to be kept, in order to function as a mobile, they compare this to the ecological balance.	5 minutes
5 Instruction in Page 86	Book My World Page 86 Games 13 to 19 Coloured pencils	5 Teacher reads the text and lets children explain how to build a mobile. He/she lets the students look at the games 13-19. Teacher assigns students to bring the material listed on Page 86. If time permits children are asked to start colouring in the pictures. As a homework those who have coloured pencils are asked to finish. All are asked to cut out the pictures.	5. Children explain how a mobile is built and what material is needed.  Children colour in the pictures and cut them out.	15 minutes



**SUBJECT: ENVIRONMENTAL EDUCATION**  
**UNIT 4: ENVIRONMENTAL POLLUTION**

**Grade V****Lesson 8. Mobile and ecological balance**

**Objectives:** At the end of the lesson the students will be able to.

**Knowledge:**

- a) explain how the parts of a mobile are to be balanced
- b) give examples for ecological imbalances
- c) explain that any imbalance in ecosystems may cause harm for other living creatures

**Skill**

- a) demonstrate the ecological interdependencies by designing a mobile
- b) identify ecological imbalances and its interdependencies in the surrounding

This lesson will also help the students to develop following attitudes:

**Attitude.**

- a) understand ecological interdependencies in the surroundings and care for protecting their balance

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 The instructions how to cooperate in waste management should be clear enough so families, friends and neighbours can follow them. In the instructions ways of waste reduction, reuse, recycling, composting and proper disposal into the waste container should be included.		1 Teacher collects the reports written by the children to correct them and select one.	1 Children handover their instructions to neighbours for proper waste handling.	3 minutes
2 Page 86 gives the instructions how to make a mobile. Patience is required to build a mobile, it does not work in the first moment. Part of the exercise is to carefully find the right balance. The presentation of a mobile on page 70 should be consulted (My World).	Book My World Page 86 Pictures Glue String Thin stick Scissors Page 70	2 Teacher collects the necessary material to build the mobile. He/she assigns three children to come in front to build the mobile. Other children read the instructions from the book, Page 86.  If the children are working well, the teacher forms other groups and asks them to build a mobile.	2 Children assist in building a mobile.	22 minutes
3 Once the pictures are tied to the sticks and several sticks are tied to each other (see Page 70 of "My World") the balancing task begins. Best is to start to balance 2 pictures then 3, then 5.	Mobile	3. Teacher asks several children to explain how they could put their mobile into balance.	3 Children explain that they had to move all parts very carefully so the mobile could be balanced.	10 minutes
4 The ecological balance is also quite fragile. Dumped waste around us makes us sick + and dumped waste in the water kills the living beings in the water. This turns the water into foul water.		4 Teacher asks the children to compare a mobile to the environment, giving an example.	4 Children give the example of ecological imbalances like polluted water and polluted poor soil & the consequences.	5 minutes
5 Presenting examples of ecological imbalances Page 71 in "My World" should be consulted. Even better, some examples from the very surrounding should be pointed out, i.e. pollution of cars, factories affecting human as well as trees, the water of the river diminishing as too many people move to the city, who all need water, etc.		5 Teacher explains some examples of ecological imbalances and their interdependencies. She/he asks the children to hang the mobile into their classroom and others at home, remembering the ecological balances, which we should not disturb.	5 Children hang up the mobile in the classroom.	5 minutes
6 Polluted rivers and ponds do not carry any fish or other living creatures. Garbage lying around breeds many flies, attracts rats and cockroaches which create an unhealthy environment.		6 As a homework children are asked to identify ecological imbalances in their surrounding (Consult Page 71).	6 Children identify in nearby rivers or open places garbage polluting and affecting the surrounding and its people.	



Grade V

Lesson 9: Impact of population growth on our environment

Objectives. At the end of the lesson the students will be able to:

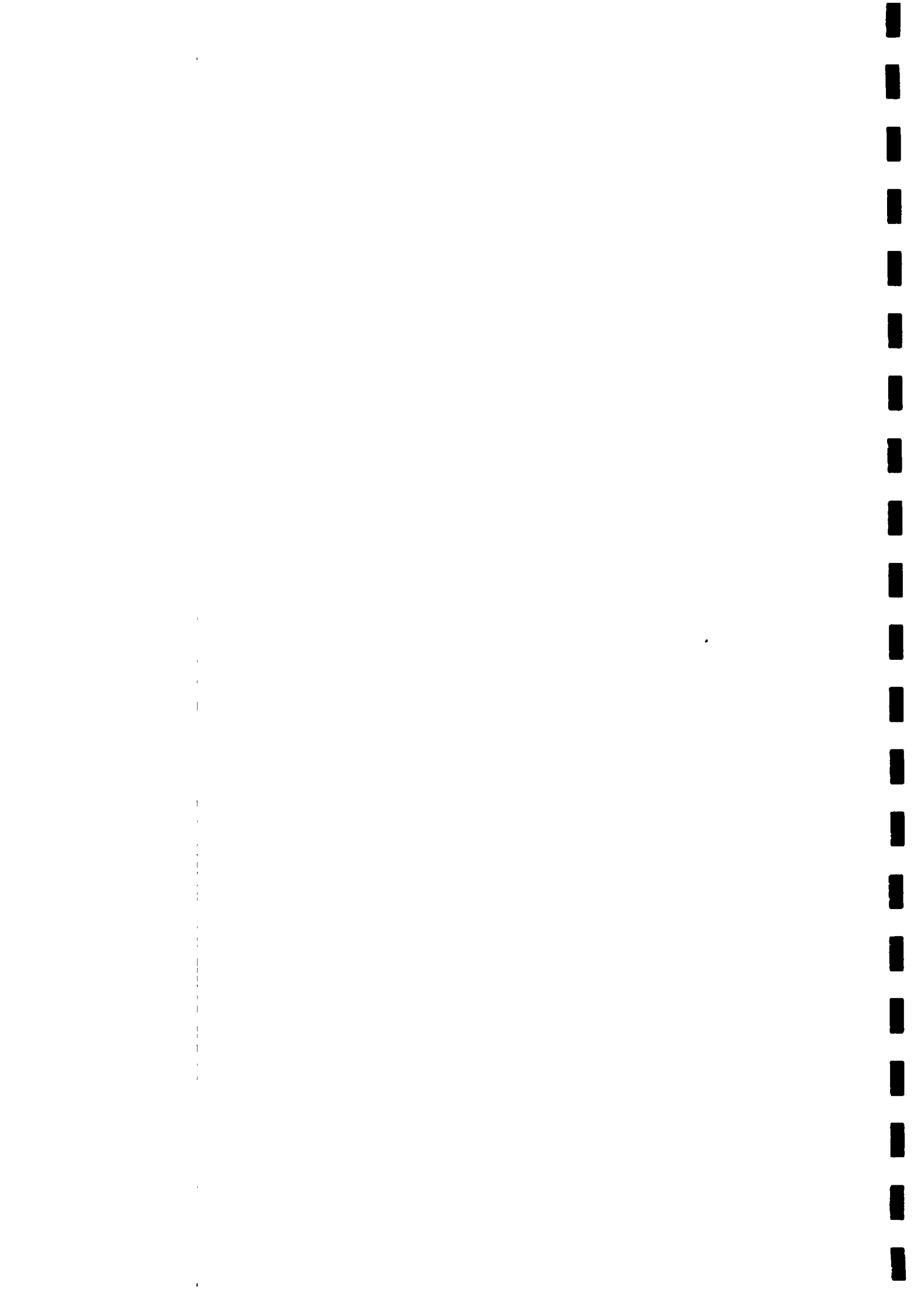
- Knowledge:
- compare the waste handling in rural areas to waste handling in urban areas
  - explain the relationship between population growth and waste handling
  - describe the class of waste
  - explain how in cities the waste problem came into existence
  - explain how people should handle their waste

- Skill:
- address people from the neighbourhood and get them involved in responsible waste handling

This lesson will also help the students to develop following attitudes.

- Attitude:
- realize that in a densely populated area uncontrolled dumping of waste implies a high risk for the people
  - be aware of the specific responsibility we have for waste handling in the city

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 A certain balance has to be kept in a mobile otherwise it collapses. Easily the ecological balance is disturbed if many people live together polluting their surrounding, the air, the ground and the water		1 Teacher asks to describe again, how a mobile is working and how a mobile can be compared to ecological balance in the urban area	1 Children explain how easily the balance in a mobile can be destroyed. They point out that many people living together polluting the environment create an imbalance in the environment.	5 minutes
2. Few people create only some waste and do not create drastic ecological disturbances whereas many people create a lot, especially in a city. In cities different waste is generated and everybody generates more waste. So the ecological imbalance becomes dramatic (see Kathmandu)	Card 1 to 6 Card 10 - 14	2 Teacher asks 6 children to come in front to hold up card 1 to 6 and 5 other children to hold up card 10 to 14. He/she asks the children to compare the waste production from few people and from many people	2. Children compare the waste handling in rural areas to waste handling in urban areas	15 minutes
3 When people live in the village, they also clean up open places and the streets in front of them. People know each other and all of them care for their village. In the city people do not know each other they lose their interest and responsibility for anything outside their house. They wait for somebody else to clean up	Card 1 to 6 Card 10 - 14	3 Teacher asks what attitude people have if only a few live around them and if many people live around them	3 Children explain that in cities people do not take responsibilities to clean up streets and open places	5 minutes
4 If many people create waste and in cities even create more waste individually and if they feel less responsible for their waste at the same time, the waste - problem comes into existence and affects the physical + mental well-being of the people		4 Teacher asks children to explain how waste problems come into existence in urban areas	4 Children explain that the enormous waste production of urban people and their attitude towards their leftovers lead to a waste problem	5 minutes
5 Ecological imbalances can be prevented if people are more responsible about their own waste production at home, at work and moving around. Responsible waste handling means to produce very little waste, to prepare compost, to reuse and recycle. The leftovers which they can't use anymore and which they can't give or sell to anybody they should dispose properly into the container	Reports to be distributed	5 Teacher reads the best report to the children in which rules for proper waste management are presented to family, friends + neighbours. He/she distributes the reports and asks the children to correct or improve them.  As a homework children are asked to read their report to several members of their neighbourhood in order to prevent ecological imbalances and cooperate in proper waste	5 Children correct their reports on how to cooperate in responsible waste handling.  Children address themselves to family members, friends and neighbours to make them cooperate in responsible solid waste handling in their neighbourhood. Children explain how we should handle waste responsibly	15 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

Grade V

Lesson 1: Hygienic risks in the surrounding

Objectives: At the end of the lesson the students will be able to:

Knowledge:

- a) name hygienic risks in the house and neighbourhood due to uncontrolled dumping of
- b) name ways of transmitting diseases
- c) explain how sanitary treatment of organic waste and faeces reduced germs which cause sickness to us
- d) describe how one feels being infected by pathogen germs

This lesson will also help the students to develop following attitudes.

Attitude:

- a) appreciate a clean surrounding

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1. Uncontrolled dumping of waste in the neighbourhood causes hygienic risks for all people living within it (Card 37) Also defecating in the open, near the houses people live in (Card 38) causes hygienic risks. These actions contaminate the air, soil and water. Also within the house we can create hygienic risks by waste lying around, by toilets not being cleaned up after using them (Card 39). Leaving food uncovered is also an hygienic risk (Card 36) as through flies, rats, even through the wind pathogen germs can be transmitted. An unhealthy environment is the main factor for public health.</p>	<p>Card 36 - 39</p>	<p>1 Teacher asks to name hygienic risks in the house and in the neighbourhood. Teacher collects answers, then puts up the cards 37; 38, 39; 36 and asks children to explain, what they see. 4 children come in front and each one holds up one card.</p>	<p>1 Children explain that a dirty neighbourhood and a dirty house are important factors for the health of the people. Children describe at least 4 actions in their house and neighbourhood which can provoke hygienic risks.</p>	<p>10 minutes</p>
<p>2. Because of uncontrolled dumping of waste and lack of sanitary treatment of human defecation microorganisms are created which are an unhygienic risk to the people living around.</p> <ul style="list-style-type: none"> <li>- Insects and rats can transmit diseases (Card 33)</li> <li>- We can fall sick by directly touching the waste and using the dirty hands for eating or touching the mouth (Card 34)</li> <li>- Diseases also can be mechanically transmitted by touching something somebody else has touched before (Card 35)</li> <li>- The pathogen germs can travel by the wind</li> </ul>	<p>Card 33 - 35</p>	<p>2 Teacher asks how the pathogen germs created in the waste can get to humans and make them sick. Teacher helps holding up the cards to find ways of transmitting diseases.</p>	<p>2 Children name the different ways how diseases are transmitted.</p>	<p>10 minutes</p>





**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

Grade V (continued)

Lesson 1: Hygienic risks in the surrounding

Objectives: At the end of the lesson the students will be able to:

Knowledge:

- a) name hygienic risks in the house and neighbourhood due to uncontrolled dumping of
- b) name ways of transmitting diseases
- c) explain how sanitary treatment of organic waste and faeces reduced germs which cause sickness to us
- d) describe how one feels being infected by pathogen germs

This lesson will also help the students to develop following attitudes.

Attitude:

- a) appreciate a clean surrounding

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
3 Falling sick because of lack of hygiene is causing weakness, lack of interest and concentration, often abdominal pain and headache, lack of appetite	Card 42	3 Teacher asks to describe how one feels if one falls sick with stomach problems Teacher puts up a picture and lets children describe	3 Children describe the symptoms from being sick from stomach problems due to unhygienic conditions	5 minutes
4 Covering food, having clean hands, disposing waste in a container which is regularly being emptied, cleaning the toilet after using it and covering up faeces if defecating in the open reduces immediately germs which cause diarrhoea, dysentery, typhoid fever, cholera, etc and will consequently reduce deaths caused by these sickness. That is why we have to keep our environment clean and have good hygienic habits. This way many sickness can be prevented	Cards 37 - 46 39 - 48 38 - 47 36 - 44 34 - 45	4 Teacher asks how to reduce the hygienic risks in the house and neighbourhood He/she asks 5 children to come up in front, to hold up in one hand card 37, 39, 38, 36 and 34 Teacher asks how we could improve the situation presented on the cards? The 5 children are asked to take into the other hand the corresponding card where the hygienic condition is improved, i.e. one child has the card 37 in one hand and 46 in the other, another child 39 in one 48 in the other; another 38 in one 47 in the other, another 36 in one 44 in the other, another 34 in one 45 in the other	4 Children explain how sanitary treatment of waste + defecation reduces germs which cause sickness.	15 minutes
5 Feeling healthy we can be strong, in a good mood, interested in what is going on around us and can concentrate more easily		5 Teacher asks how one feels if one is healthy	5 Children describe how they feel when they are healthy	5 minutes



Grade V

Lesson 2: Advantages of living in a clean surrounding

Objectives At the end of the lesson the students will be able to:

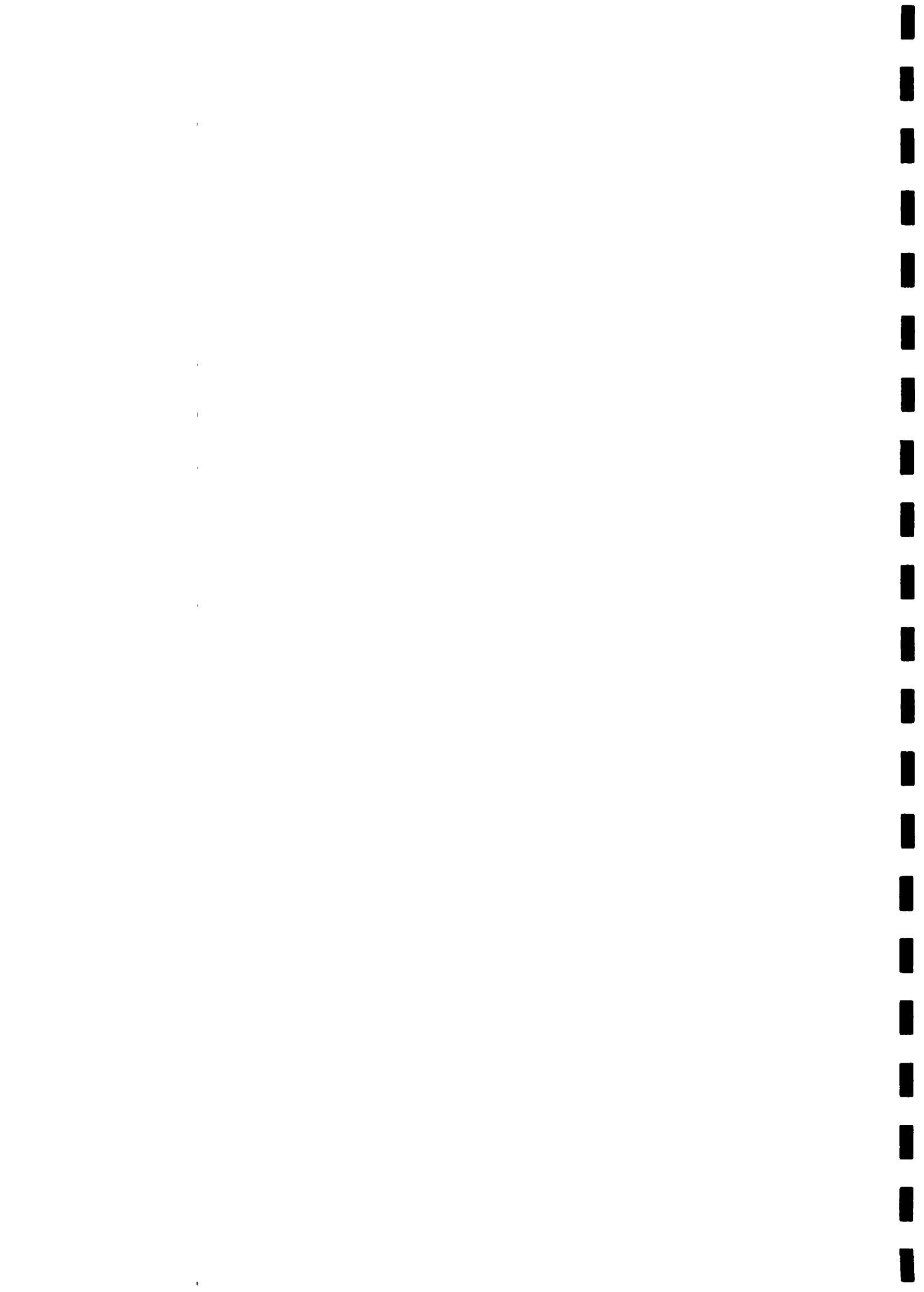
- Knowledge:
- a) name ways how to reduce hygienic risks
  - b) name sickness related to hygienic risks
  - c) list advantages of living in a clean surrounding

- Skill:
- a) clean their school courtyard
  - b) organize cleaning campaigns involving family, friends and neighbours

This lesson will also help the students to develop following attitudes.

- Attitude:
- a) feel responsible for keeping the surrounding environment clean

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 If we cover the food, have clean hands and if we make compost, put the waste into a container, use a clean toilet or at least cover the faeces with soil we break the mode of transmission of pathogen germs		1 Teacher asks children to explain how sanitary treatment can reduce hygienic risks in the surrounding immediately	1 Children repeat how to keep their house and neighbourhood clean and reduce hygienic risks	6 minutes
2. Dumped waste and faeces in open places produce germs which cause diarrhoea, dysentery, typhoid fever, cholera etc . which also can cause deaths.		2 Teacher asks the children to name the kind of sicknesses that arise from living in a dirty environment	2. Children name different sicknesses caused by unhygienic surroundings	5 minutes
3 Sanitary treatment of our surrounding and looking after personal hygiene (see 1)  - reduces sickness - avoids bad smells - makes our surrounding more beautiful to live in		3 Teacher asks to describe a house and surrounding which is managed properly	3 Children name the advantages of keeping the surrounding clean	5 minutes
4 Children can do a cleaning campaign, picking up the waste and carry it to the next containers They can start compost production or seperating leftovers for recycling as many leftovers as possible They can clean their hands, cover their food and keep their toilet clean		4 Teacher asks the children to give some examples for what they themselves can do to improve the sanitary condition of their neighbourhood	4. Children name ways of sanitary treatment and personal hygiene	5 minutes
5 If the waste container is too far away from the school a peon should assist the children	Basket Broom Shovel	5 Children are asked to clean up the school courtyard, picking up the paper and collecting it in one basket.	5 Children clean their school courtyard and wash their hands	20 minutes
6 Children should be motivated to understand their responsibility towards a clean neighbourhood They should learn to improve their behaviour in waste handling from their early age.		6 As a homework teacher asks the children to look at their neighbourhood and organize a cleaning campaign with family, friends and neighbours	6 Children make a plan for a cleaning campaign and contact friends, family and neighbours to participate.	4 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade V****Lesson 3: Organize cleaning campaigns**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) work out a plan for community involvement in a cleaning campaign
- b) name ways how to reduce the generation of waste
- c) explain how to separate waste
- d) name organic leftovers, recyclable inorganic leftovers and disposable inorganic leftovers

**Skill:**

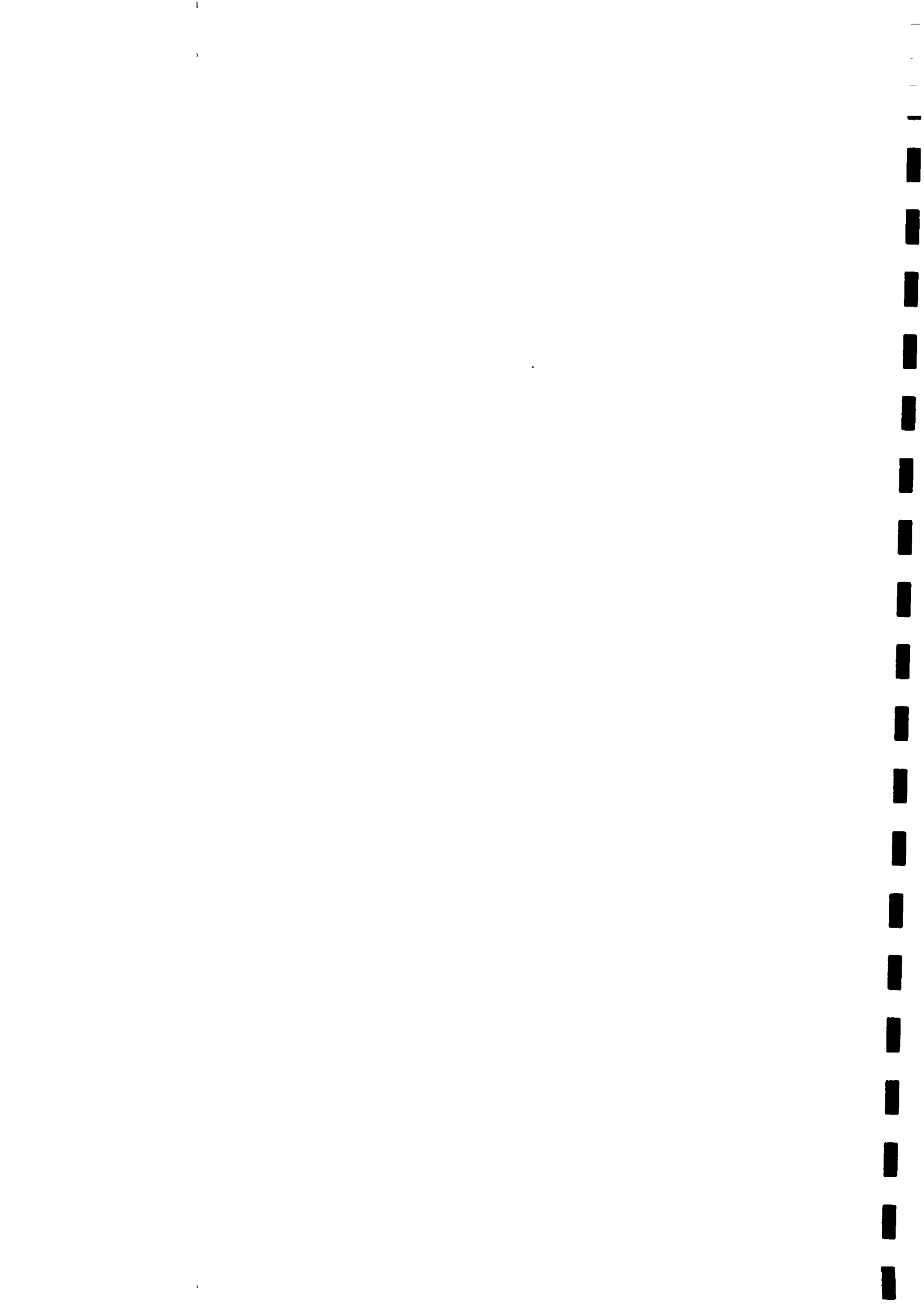
- a) practice separation of waste at home
- b) organize cleaning campaigns involving family, friends and neighbours

This lesson will also help the students to develop following attitudes.

**Attitude**

- a) feel responsible for keeping the surrounding free of waste

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D Learning Outcome	E. Estimated Time
1 In a cleaning campaign people from the neighbourhood jointly clean up a certain area at a certain day This can be done regularly, once a week or twice a month If people of the neighbourhood join in and participate in the cleaning campaign, they all will take interest in living in a clean neighbourhood They will take more care not to dump their waste in the streets		1 Teacher asks about the plans of a cleaning campaigns and the response of the family members, friends and neighbours, asked for participation	1 Several children tell their experiences with contacting family, friends and neighbours They present their plans for a cleaning campaign	10 minutes
2 Children should organize baskets and brooms and shovels They have to contact neighbours to participate They should have 8 days to arrange the cleaning campaign		2 Teacher forms groups and lets the children discuss their plans She/he asks them to plan one day at a certain place with as many participants as possible	2 Children work on one mutual plan for a cleaning campaign.	15 minutes
3 See above	Blackboard Chalk	3 Several groups are asked to report of their outcome The teacher helps to make up a plan, fixing the date and location	3 Children finalize a plan for a cleaning campaign	5 minutes
4 See above		4 Teacher asks the children to practice a little before the actual cleaning campaign and bring a broom, some baskets or other waste containers and some shovels to the next class	4 Children bring baskets, brooms and shovels for the next lesson.	5 minutes
5 Cleaning campaigns can be done regularly What is even more important for our every day life is to reduce the amount of waste generated from our house Waste production can be reduced  - by consuming more consciously, buying less potential waste and - by composting all organic waste and - by recycling all those inorganic leftovers, which can be recycled		5 Teacher asks for ways how to reduce the waste production	5 Children repeat that the waste production can be reduced by composting some leftovers and recycling others	5 minutes
6 Leftovers in each household should be separated in organic leftovers (like vegetable - animal matter) and those leftovers which can be recycled like glass, paper, cardboard, tin and plastic bags and those which we don't know how they can be used for recycling		6 Teacher asks the children how we could separate waste in our homes	6 Children explain how they could separate organic leftovers from inorganic recyclable leftovers and from those which have to be disposed as waste	5 minutes
		7 As a homework children should practice classification of waste If time permits children are asked to write into their exercise book all leftovers under 3 columns 1 organic leftovers 2. inorganic, recyclable leftovers 3 inorganic disposable leftovers	7 Children name organic leftovers, recyclable inorganic leftovers and disposable inorganic leftovers	



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade V****Lesson 4: Cleaning campaign of the school surrounding**

**Objectives** At the end of the lesson the students will be able to

**Knowledge.**

- a) name organic - recyclable inorganic - and disposable leftovers
- b) explain that organic leftovers are the major part of waste in Nepal

**Skill.**

- a) clean up the school surrounding in an organized way
- b) collect organic leftovers from the house

This lesson will also help the students to develop following attitudes

**Attitude**

- a) feel responsible for keeping the surrounding environment clean
- b) develop interest how to reduce waste generation

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D Learning Outcome	E. Estimated Time
1 To separate the leftovers we generate at our home we need three different containers (either 3 baskets, 3 boxes, or 3 buckets) one for organic leftovers, one for all recyclable leftovers and one for leftovers which have to be disposed as waste.		1 Teacher asks children how they separated their leftovers at home	1 Children tell their experiences how they separated their leftovers	5 minutes
2. The basket or box, which is marked with a green pencil should contain fruit peels, vegetable leftovers, eggshells, leaves, dead flowers, anything that is natural, not manufactured by men  The basket marked red should contain all leftovers which can be used or recycled again. Some even we can use again like some bottles, plastic bags, or tins. We just have to clean them and reuse them. Others have to be recycled in an industry, like glass, paper, cardboard, tins The basket marked yellow is for those leftovers we can't think of any way of reusing them, like dirty paper, several plastic items They should be disposed in the public waste container Old medicine and batteries should not go to a landfill site, as they pollute the soil and the ground water They should be treated if possible.	3 boxes or baskets marked with 3 different colour pencil	2. Teacher demonstrates the three containers and marks them, one with a green pencil, one with a red pencil and one with a yellow pencil explaining for what the colours stand Teacher practices with the children how to separate leftovers and asks them to use the different containers from now on accordingly	2 Children name the leftovers which should go into the green container and those which go into the red - and those which go into the yellow container	10 minutes
3 Children should have their own experiences in cleaning up the neighbourhood before they ask the community to cooperate They have to organize well, who is brooming, who is picking up the waste and filling the baskets or boxes and who is bringing them to the container once they are filled up. This way they can be very effective in cleaning up their neighbourhood	Brooms Shovels Containers	3. Children are asked to take their brooms, shovels and boxes or baskets and go outside the school and pick up the dumped waste and dispose it into the next container, using brooms, shovels and their boxes or baskets. Before the children start the teacher helps to organize them	3 Children clean up the direct neighbourhood of the school in an organized way  Children wash their hands	25 minutes
4. Organic leftovers in Nepal are the major part of the waste generation, about 60% to 70% of the total If all of it is composted, the waste is reduced drastically and the hygienic risks at the same time Besides a good fertilizer is being produced which helps to produce more grains and vegetables		4 Teacher asks the children what kind of waste they found in the streets He/she explains that the biggest part of the waste is organic and can be composted. As a homework children are asked to bring one bag full of organic leftovers and one bag	4 Children explain that organic waste is the major part of waste.  They collect organic leftovers from the kitchen.	5 minutes





**Grade V**

**Lesson 5: Compost production**

**Objectives: At the end of the lesson the students will be able to:**

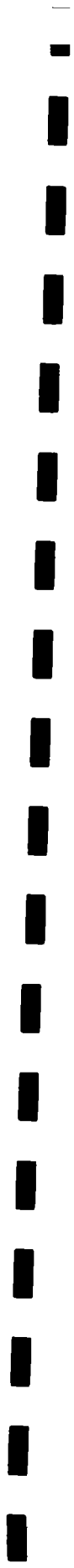
**Knowledge:** a) name the organic leftovers produced at home  
 b) explain what is happening to the organic leftovers inside the compost pile

**Skill:** a) prepare a compost pile  
 b) prepare paper recycling

This lesson will also help the students to develop following attitudes.

**Attitude:** a) be interested how to reduce waste generation  
 b) be curious about compost production  
 c) be curious about paper production

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
1 Organic leftovers are all those which are naturally produced, all vegetable - and animal matter, including rotten fruits, leaves, grass .		1 Teacher asks the children which organic leftovers they have brought Teacher corrects if necessary	1 Children name their organic leftovers.	5 minutes
2 An adequate place for composting has to be selected, for example in one corner of the school courtyard The teacher does not have to dig a hole, but he/she could make a circle out of old broken bricks where the compost pile will be built up  The natural cycle is closed if everything that comes from the earth will go back to the earth Composting assists this transformation process.	- organic leftovers - grass or leaves - soil - may be a plastic or a mat	2 Teacher asks the children to come down into the school courtyard, where she/he has selected a place for composting She/he asks the children one by one to empty their organic leftovers onto the pile Teacher checks if all the leftovers are really organic Then they are asked to cover them with grass and soil. In the rainy season a plastic should protect the pile from too much water and in the cold season a mat can protect the pile from too much cold	2 Children empty their organic leftovers onto the pile and cover them with grass and soil Children wash their hands properly with soap and water	20 minutes
3. Within the compost pile, the organic leftovers decompose and transform into soil, some faster than others		3. Teacher asks and then explains what is happening in the compost pile, she/he lets children repeat Teacher tells the children that they will check the compost once a week	3. Children explain what is happening in the compost pile	5 minutes
4 Out of old paper new paper can be produced by tearing the paper into tiny pieces, soak them in water and grind them Out of that pulp new paper can be made using a straight screen Also other objects of paper can be made.	Used paper	4 Teacher tells the children that they will practice paper recycling He/she explains how it is done	4 Children tear up paper into very small pieces.	5 minutes
5 For the paper production natural resources are needed To produce white quality paper trees, a lot of water and energy are needed (for 1 ton of white paper one needs three fully grown trees, 400000 litres of water) To make the paper white, chemicals are used which are very harmful for agriculture, ground or river water Recycling used paper we save the trees and use much less water and energy The use of chemicals should be avoided		5 While the children tear up the paper teacher explains why we should recycle paper	5 Children tear up paper meanwhile they listen to the teacher's explanation	10 minutes
		6. The teacher soaks the pieces of paper in water one day before the following lesson		



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade V**

**Lesson 6: Paper recycling**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) name reasons why compost pile has to be shifted
- b) explain the advantages of recycling paper
- c) name the importance of trees for the environment and its people

**Skill:**

- a) observe/practice paper recycling

This lesson will also help the students to develop following attitudes.

**Attitude:**

- a) be interested in the preparation of compost
- b) feel concern for the natural resources being used for the paper production

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 When organic leftovers decompose they produce heat. The heat destroys all pathogenic germs. The transformation from organic leftovers to soil/fertilizer needs heat, besides moisture and oxygen. Organic leftovers already contain moisture. Only in the dry season some moisture has to be added. Every 7 days a compost pile should be shifted, so oxygen can get inside. This way the outside of the compost pile can be exposed to the heat, being produced by the decomposition of organic leftovers. On the outside of the compost pile flies lay thousands of eggs which hatch after 9 days. To avoid the production of many flies, the outer layers of the pile should be shifted to the inside, where they will be destroyed by the heat.</p>	<p>- Shovel</p>	<p>1 a Teacher takes the children outside to the compost pile. He/she asks the children to touch the pile and to say the children what they feel. She/he explains why the compost has to be shifted.  b Teacher lets some children shift the compost pile starting with the outside of the pile.  c Teacher asks the children to repeat the reasons for shifting the compost pile.</p>	<p>1 a Children express that they feel heat coming out of the compost pile.  b Children shift the compost pile.  c Children name the reasons why the compost pile has to be shifted.</p>	<p>10 minutes</p>
<p>2 Paper can be recycled 6 times without adding anything, just using water and the used paper. By recycling paper we save natural resources like trees or other plants, a lot of water and energy. Besides, by recycling paper the waste generation is reduced.</p>		<p>2 Teacher tells the children that they want to recycle paper and asks them to give reasons why a lot of paper should be recycled.</p>	<p>2 a Children explain that by recycling paper trees or other plants, water + energy are saved.  b Children express that recycling of used paper reduces the waste generation apparently.</p>	<p>5 minutes</p>



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

Grade V (continued)

Lesson 6: Paper recycling

Objectives: At the end of the lesson the students will be able to:

Knowledge:

- a) name reasons why compost pile has to be shifted
- b) explain the advantages of recycling paper
- c) name the importance of trees for the environment and its people

Skill:

- a) observe/practice paper recycling

This lesson will also help the students to develop following attitudes.

Attitude:

- a) be interested in the preparation of compost
- b) feel concern for the natural resources being used for the paper production

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>3. There are many reasons why trees are important for our environment and for us. They give us shelter from sun and rain, they actually can clean the air and produce oxygen. They keep the soil humid with their dried leaves. Their branches protect the soil from drying out. Their roots grab the soil, so in the rain soil can't be washed away. Animals and small plants can find their living space inside or around the trees. Trees actually help to absorb pollution.</p>	<p>Book My World, Page 59 + 60</p>	<p>3 Teacher asks children to read the text on page 59 and discuss the importance of trees. Teacher then asks to read Page 60.</p>	<p>3 Children read + discuss about the importance of trees.</p>	<p>10 minutes</p>
<p>4 See instructions on how to make paper in the book page 89-92.</p>	<p>Book. My World, Page 89 - 92</p>	<p>4 Teacher forms groups and lets them read the instructions on how to make paper. In case they already know they can start making paper or other objects.</p>	<p>4 Children read the instructions on how to recycle paper.</p>	<p>7 minutes</p>
<p>5 If the children have never done paper recycling, first the screen should be used and the instruction in the book should be followed. In case they have recycled paper already, less water should be added to the pulp and objects should be formed pressing out the water.</p>	<p>Pulp of paper Frame Big tray Cloth Newspaper</p>	<p>5 Teacher demonstrates how to make paper or other objects following the instructions.</p>	<p>5 Children observe how to recycle paper or how to form objects out of old paper.</p>	<p>13 minutes</p>
<p>6 The small pieces of paper should be soaked into the water one day before the following lesson, this way the paper gets soft.</p>		<p>6 The teacher asks the children to bring used cleaned tins, coloured paper, pencils + glue and paper torn into little pieces one day before the following lesson. Then teacher soaks the pieces of paper in water.</p>	<p>6 Children bring paper, coloured pencils and glue and torn up paper to school.</p>	



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

Grade V

Lesson 7: Recycling and reuse of inorganic leftovers

Objectives: At the end of the lesson the students will be able to:

- Knowledge:
- a) repeat which material can be used for composting or recycling
  - b) explain that the use of plastic should be avoided as it contaminates the soil for many year
  - c) investigate what waste pickers do with the collected materials
- Skill:
- a) give leftovers a new use through cleaning and decorating them
  - b) recycle paper
  - c) make an interview with waste pickers

This lesson will also help the students to develop following attitudes.

- Attitude:
- a) become creative in reducing the waste generation and improve the sanitary condition of t surrounding
  - b) be interested in the steps waste pickers undertake to get certain leftovers recyclable.

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 See instructibns how to recycle paper page 89 - 92.</p> <p>Tins can be cleaned and decorated with coloured paper, which can be glued onto the tin. The tin can be used as a pencil holder. The same can be done with small boxes or plastic containers.</p>	<p>Tins Paper Glue Coloured pencils</p> <p>Soaked pieces of paper</p> <p>Bucket Tray Frame Newspaper</p>	<p>1 Teacher forms groups asking the children to decorate tins or recycling paper or making objects out of recycled paper</p>	<p>1 Some children decorate tins, others make paper out of old paper and others form objects out of recycled paper</p>	<p>30 minutes</p>
<p>2. Most of our leftovers can be used for something else, be it for composting, recycling or immediate reuse. All material naturally produced can be composted and other material, industrially produced, can be recycled. Most plastic objects though cannot be recycled, they never decompose and contaminate the ground for a indefinite time.</p>		<p>2. Teacher asks again which leftovers can be used for composting and which for recycling. Teacher asks why we should use as little plastic as possible</p>	<p>2. Children repeat which leftovers can be used for composting and which for recycling. Children explain that plastic is difficult or impossible to recycle and that it never decomposes. Children explain that we should not use plastic as far as possible</p>	<p>5 minutes</p>
<p>3 Waste-pickers only collect those leftovers which they themselves can use and those which they can sell. The leftovers like glass, tins, plastic bags, paper and cardboard they sell to factories. Mostly only in India there are recycling factories. In Teku there are collecting points for those leftovers, in big quantities they are picked up by lorries and driven to the factories.</p>		<p>3 Teacher asks if the students have seen waste pickers. If yes if they know what they collect and what they do with the material they collected.</p>	<p>3 Some children tell their observations concerning waste pickers</p>	<p>8 minutes</p>
		<p>4 As a homework children are asked to find out what waste pickers do with the material collected</p>	<p>4. Children talk to waste pickers asking them what they do with the collected leftovers.</p>	<p>2 minutes</p>





**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade V**

**Lesson 8 Costs for waste management**

**Objectives** At the end of the lesson the students will be able to:

**Knowledge**

- a) compare costs of different forms of waste - management services
- b) explain ways how to reduce public costs in waste handling
- c) name ways of co-operating with the municipalities in keeping our homes and neighbourhood clean
- d) name different tasks the municipality has to pay for

**Skill:**

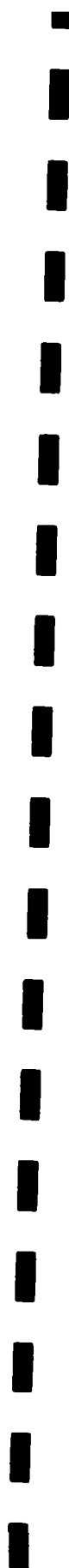
- a) plan activities how to improve the surrounding using public money

This lesson will also help the students to develop following attitudes.

**Attitude:**

- a) become creative in planning improvements in the surrounding
- b) evaluate the services provided by the municipality

A. Subject for Teaching	B. Material Needed	C Teaching Activities	D Learning Outcome	E. Estimated Time
1 With the cards 46, 56, 57 three different situations are being compared. If we bring our waste to the container and dispose it properly public costs stay low (i.e. 1 Rupee) If we produce little, costs of waste are even lower (46) The municipality only has to pay for the container to be picked up and driven to the landfill site, where the waste gets covered with soil to keep the environment for the people hygienically safe.	Card 46 1 Rupee	1 Teacher holds up the card 46 and 1 rupee and asks the children to describe the action presented on the card He/she asks for what the rupee stands for Who has to pay for it	1 Children explain that carrying our own waste to the container may cost the municipality 1 rupee They have to drive our waste, inside the container, to the landfill site.	7 minutes
2. If we feel lazy to bring our waste to the container and collect it in accessible places in the neighbourhood, the waste has to be picked up by a municipality employee (with a push cart) and the costs double up (2 rupees)	Card 56 2 Rupees	2 Teacher holds up card 56 and two rupees and asks the children to describe the actions on the picture. He/she asks why now 2 rupees have to be paid by the municipality (the one who pushes the push cart is an employee)	2 Children explain that collecting the waste near their house, increases the public costs as another employee has to pick up the waste with his push cart or waste rickshaw and bring it to the container	7 minutes
3 In case we just dump the waste haphazardly the costs for recollection and proper disposal of the waste rise four times (4 Rupees) as much as when we cooperate putting the waste in the container (37)	Card 37 4 Rupees	3. Teacher asks to describe the actions on card 37 He/she holds up at the same time the card and 4 rupees. He/she asks why these actions now cost 4 rupees.	3. Children explain that dumping the waste in public places increases the costs 4 times, as more people have to be employed to collect the waste	7 minutes



**SUBJECT: HEALTH EDUCATION**  
**UNIT 2: ENVIRONMENTAL CLEANLINESS**

**Grade V (continued)**

**Lesson 8. Costs for waste management**

**Objectives** At the end of the lesson the students will be able to.

**Knowledge:**

- a) compare costs of different forms of waste - management services
- b) explain ways how to reduce public costs in waste handling
- c) name ways of co-operating with the municipalities in keeping our homes and neighbourhood clean
- d) name different tasks the municipality has to pay for

**Skill:**

- a) plan activities how to improve the surrounding using public money

This lesson will also help the students to develop following attitudes.

**Attitude:**

- a) become creative in planning improvements in the surrounding
- b) evaluate the services provided by the municipality

A Subject for Teaching	B. Material Needed	C Teaching Activities	D Learning Outcome	E. Estimated Time
<p>4. There is only limited money the municipality can spend for the waste collection. That is why it is essential that the population who is producing the waste and actually is responsible for it has to cooperate.</p>	<p>Card 46, 56, 37 7 Rupees</p>	<p>4 a Teacher asks 3 children to come in front each one holding up one card and the corresponding rupees. Teacher asks to compare.  b. He/She asks why our cooperation in proper waste handling is essential</p>	<p>4 a. Children compare the 3 different ways of cooperating with the waste management, comparing the costs involved</p>	<p>5 minutes</p>
<p>5. There are many more tasks the municipality has to spend money for. If too much money is spent by waste-management only other improvement cannot be made. The municipality has a lot of functions partly environmental, partly managing and partly development functions. It has to take care of urban development, water resources and - management, road maintenance, conservation of culture and environment. They have to control slaughter houses, build and take care of public toilets (just to name a few) apart from cleaning functions and solid waste management. The municipality gets their money partly through taxes paid for goods getting in and going out. Partly they get taxes for each house construction. The central government also contributes money to the municipality.</p>		<p>5 a Teacher asks for what else the municipality has to spend money  b She/he asks how the municipality gets their money</p>	<p>5. a. Children name different functions of the municipality.  b Children explain where the municipality gets their money from</p>	<p>7 minutes</p>
<p>6. There are various possible ways to improve the environment of the municipality. To name just a few children could be interested: planting trees + flowers, a park for playing. All these improvements cost money. If we cooperate in proper waste handling in the neighbourhood, public money can be saved and would be free to do those and other improvements.</p>	<p>Exercise book Pencil</p>	<p>6 Teacher asks to make a list which improvements in the city the children would like to be done by the municipality money. Teacher asks how we could make sure that more money is available for the mentioned improvements.</p>	<p>6 Children name some improvements in the city. Children say that more public money could be available if we all cooperate in proper waste handling.</p>	<p>10 minutes</p>



**SUBJECT: HEALTH EDUCATION****UNIT 2: ENVIRONMENTAL CLEANLINESS****Grade V****Lesson 9: Ways of contamination of drinking water and different forms of purifying it**

**Objectives:** At the end of the lesson the students will be able to:

**Knowledge:**

- a) name sources of drinking water
- b) explain how drinking water gets to urban areas
- c) name ways how drinking water can become contaminated
- d) name different forms of purifying drinking water

**Skill:**

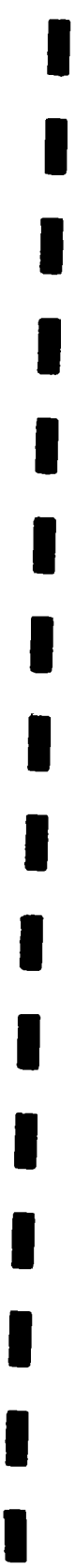
- a) observe water being filtered and filter water themselves
- b) detect particles in filtered water using a microscope

**This lesson will also help the students to develop following attitudes.**

**Attitude:**

- a) appreciate clean drinking water
- b) develop a sense of responsibility in keeping the water sources clean at the homes, neighbourhood and locality

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
<p>1 The drinking water in the urban areas come from mountain rivers being stored in big water tanks and then in pipes led to the city. Also ground water serves as drinking water (wells, pumps, ponds etc). In some cities the water is stored in different tanks or wells within the city where people go and fetch their water. About 10 years ago also in urban areas of the Kathmandu Valley the water was available that way. Today in many cities of Nepal water arrives through tubes up to the houses. In different pipes the used water is lead out of the city, sometimes treated, often not.</p>		<p>1 Teacher asks where the water we drink comes from. She/he asks how the water is lead to the city.</p>	<p>1 Children name the sources of drinking water and explain how the water arrives in urban areas.</p>	<p>5 minutes</p>
<p>2 People living near the river can contaminate the water with their own human-or household waste. If the pipes where the water runs through are not clean or are defect dirt gets into the water.</p>		<p>2 Teacher asks how this clean water can become contaminated.</p>	<p>2. Children name ways of contamination of drinking water.</p>	<p>5 minutes</p>
<p>3 In some cities chlorine is added to the water. This kills pathogen germs, it gives a specific taste to the water but we can drink it. Other possibilities are to filter the water or to boil it or to boil and filter it.</p>		<p>3 Teacher asks how we can make the water drinkable.</p>	<p>3 Children explain the different forms of purifying water.</p>	<p>5 minutes</p>
<p>4 Filtering the water extracts all dust and sand parts out of the water. The water looks clean now. It still should be boiled to destroy pathogenic germs unseen by our naked eye. Still there are particles we cannot see with our naked eyes, but which can make us sick.</p>		<p>4 Teacher asks how the water can be purified by filtering and boiling it.</p>	<p>4 Children explain how filtering and boiling purify the drinking water.</p>	<p>5 minutes</p>



**SUBJECT: HEALTH EDUCATION****UNIT 2: ENVIRONMENTAL CLEANLINESS****Grade V (continued)****Lesson 9. Ways of contamination of drinking water and different forms of purifying it**

**Objectives** At the end of the lesson the students will be able to:

**Knowledge**

- a) name sources of drinking water
- b) explain how drinking water gets to urban areas
- c) name ways how drinking water can become contaminated
- d) name different forms of purifying drinking water

**Skill:**

- a) observe water being filtered and filter water themselves
- b) detect particles in filtered water using a microscope

**This lesson will also help the students to develop following attitudes.**

**Attitude:**

- a) appreciate clean drinking water
- b) develop a sense of responsibility in keeping the water sources clean at the homes, neighbourhood and locality

A. Subject for Teaching	B. Material Needed	C. Teaching Activities	D. Learning Outcome	E. Estimated Time
5 Looking through a microscope which enlarges to a high extent we can find lots of small creatures in one apparently clean water drop	Page 63 Book My World	5 Teacher holds up the book "My World" showing page 63 to the children. She/he asks them to describe the picture	5 Children explain that looking through a microscope particles can be seen in clean looking water	5 minutes
6. Pouring water through a filter cleans the water from all those particles which are big enough to be caught by the cloth. The cloth contains then all those particles, it has to be cleaned regularly	2 Jars One full of water, one empty, some sand, one white clean cloth	6 Teacher demonstrates how water can be filtered. She/he puts in some sand into the jar with water. 2 children hold the cloth over the empty jar and the teacher pours the water into the empty jar. Teacher asks the children to describe how water is being filtered.	6 Children observe and describe water being filtered.	8 minutes
7 It is very impressive for children to actually see through a microscope that apparently clean water still contains lots of particles and living germs	Microscope  Cup Various pieces of clean cloth	7 a. If the school has a microscope, the teacher puts a drop of filtered water under it and lets children examine it.  b. If there is no microscope children go down and filter their own water and drink it	7 a. Children detect that apparently clean water still carries particles which can make us sick.  b. Children filter their own drinking water	8 minutes
8 To get drinking water to the city and to clean it costs money and big efforts. There are times in the year many people in the city get very little water, because there is not enough for all. Water should be used economically, it is valuable. Many people in urban areas need it		8 a. Teacher asks the children if they always get enough drinking water in their houses. If not she/he asks why.  b. Teacher tells the children to use drinking water very consciously and economically, she/he asks the children to think of some reasons.	8 a. Children tell their experiences of having water in their houses and give reasons of the scarcity of water.  b. Children say that water has to be used economically because in urban areas many people need it and because it is valuable	4 minutes

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