

The Joy of Learning

Participatory lesson plans on hygiene, sanitation, water, health and the environment



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Cover photo: Annemarieke Mooijman

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The Joy of Learning

Participatory lesson plans on hygiene, sanitation, water, health and the environment

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2005



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Abstract

Khanal, S, Mendoza, R, Phiri, C, Rop, R, Snel, M and van Wijk, C (2003). The Joy of Learning: Participatory lesson plans on hygiene, sanitation, water, health and the environment. Delft, the Netherlands, IRC International Water and Sanitation Centre. (TP 45). 100 p. Includes a bibliography.

The Joy of Learning: Participatory lesson plans on hygiene, sanitation, water, health and the environment is a guide for teachers and others who want to design participatory learning activities on hygiene and sanitation as part of, or in addition to, their school curriculum or in work with other children aged 2 to 14. The document is divided into two parts: theory and lesson plans. The lesson plans are organised into three sections: hygiene (including personal and food hygiene), sanitation and water. Each section contains a series of information sheets for planning, implementing and evaluating participatory learning activities on a specific subject. Examples include personal hygiene, the safe transport and handling of water, protecting local water sources, and locally prevailing disease transmission routes.

The guide is characterised by its participatory methodology, the possibility of adjusting each activity to local conditions and cultures, a combination of hygiene and health education with more formal education goals, a focus on socio-psychological life skills such as cooperation and mutual understanding, and the linking of learning activities in schools, homes and communities. Activities require the exclusive use of no- and low-cost materials which are easily available and affordable.

A work in progress

This guide is dynamic and interactive because it is a work in progress. In the next phase of this publication, the lesson plans will be tested in different geographical areas. The present version does not cover all possible topics for every age group in each subject area. Other participatory methods and activities could be added. And although methods, materials and activities stem from different world regions and cultures, the range of options could still be broadened to better express a wide variety of learning opportunities, needs and methods.

Everyone who helps children between the ages of 2 and 14 to have fun while learning about hygiene, sanitation, water, health and the environment is most cordially invited to send us their reactions, criticism, suggestions and additions. In this way, a rich collection of materials will become available which will demonstrate how creative schoolchildren, teachers, parents and communities can be in improving local sanitation and hygiene practices, knowledge and attitudes in and through schools.

Keywords: school sanitation and hygiene education, participatory methods, lesson planning, knowledge, attitudes, practices, life skills

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Preface

Previous work that has led to this guide

This source book for more innovative and effective school sanitation and hygiene education (SSHE) programmes in the developing world is based on earlier work from the authors' organisations. In alphabetic order, they are the IRC International Water and Sanitation Centre in Delft, the Netherlands; Maji na Ufanisi (Water and Development) in Nairobi, Kenya; the Ministry of Education in Lusaka, Zambia; Nepal Water for Health (NEWAH) in Kathmandu, Nepal; and Plan International in Lima, Peru. This work has included the development of materials and methods for more participatory and 'fun' lessons on sanitation, water supply, hygiene and environmental health in primary and nursery schools.

Another source is work done during the Global SSHE project of UNICEF, IRC and the ministries of education and other partner agencies in Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam and Zambia. Inspiration also came from the SWASTHH (the School, Water and Sanitation Towards Hygiene and Health) project of UNICEF and IRC in India. Several of the authors co-developed and implemented teachers' training programmes in these projects. The e-conference on SSHE, initiated by UNICEF and moderated by IRC in the Spring of 2002 also produced new creative learning materials and methods on hygiene and sanitation.

The work on innovative learning for SSHE was so inspiring that six women colleagues who had cooperated in these earlier programmes decided to jointly develop a series of creative and participatory information sheets for school hygiene education. In the Summer of 2003, they came together for one week in the Netherlands to develop a draft guide and a first series of these sheets. The workshop was organised by IRC as part of its Knowledge Development and Advocacy (KDA) programme on school sanitation and hygiene education. It was held in Kamperland in North Beveland, the Netherlands from 22 to 28 June, 2003.

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Part 1- Purpose, concepts and structure



Boys in the classroom (Photo: Mariëlle Snel)

1. Introduction

Purpose and nature of this guide

This guide contains a series of information sheets for preparing lesson plans for children in primary schools and nursery schools on sanitation, hygiene, water, health and the environment.

The **objectives** of the information sheets are to:

- provide materials which will help educators to deal with sanitation, water supply and hygiene as part of primary school education and teachers' training;
- provide an 'ideas' book for lesson plans on School Sanitation and Hygiene Education (SSHE);
- provide 'hands on' learning tools - presenting not only concepts, methodological and content issues, but also practical learning materials and methods.

What is **different** about the sheets?

- All learning methods and tools are participatory.
- All materials are low-cost or free and available in schools or their environment.
- Teachers, schools and trainers do not need to buy special materials or kits.
- Methods and materials are adaptable to what is culturally suitable and locally available.
- Each sheet helps to develop a lesson or lessons on a particular subject for a particular age group.
- Learning about SSHE is combined with learning other skills – both schoolwork and life skills.
- Gender and poverty perspectives are systematically included.
- Each sheet can be used on its own.
- The guide is dynamic: revised, adjusted and expanded versions will be published on the web with acknowledgements to those contributing to future editions (see also the form at the back of this guide).

For whom is this guide?

This guide is meant specifically for teachers who need and/or want to focus on school sanitation and hygiene education (SSHE) in their schools. However, it is not restricted to school education on water, sanitation and hygiene. It also provides useful guidelines and activities that can be applied to topics related to SSHE, such as the protection of the environment, nutrition and the risks and consequences of HIV/AIDS. Those who work to improve sanitation and hygiene in households and communities, may find inspiration in some of the participatory methods and tools and/or wish to share their own participatory methods and tools.

Using the document

The document has been prepared with two specific types of use in mind:

- As a reference document when planning or putting into effect education on sanitation, hygiene and water supply as an (extra) curricular activity. In this case, it is advisable to see the document as a book and read it completely.
- To learn about, or find inspiration for lessons on specific topics. In this case it is not necessary to read the entire document. The reader can 'dip into' or read sections covering specific activities. To find the information sheets that they require, readers can use the index lists on subjects, participatory methods, learning objectives and age groups at the back of the document.

Structure of the guide

This part of the guide, Part 1, provides the **introduction, concepts and principles** of joyful learning in school sanitation and hygiene education.

Part 2, Information sheets for lesson plans, constitutes the major part of the document. This part contains three types of materials:

- Information to assist in the development of **lesson plans** on different themes and topics in SSHE programmes
- A large number of **participatory learning activities** for use by teachers and students in class and in the school environment, as well as for outreach activities and learning assignments in homes and communities
- **Illustrations** of activities or materials used in classrooms, with parents and community leaders and in teacher-training. Many of the illustrations show participatory activities developed with or by these groups in participating countries

Teachers can use the document and information sheets to develop lesson plans on SSHE for girls and boys in different age groups. Used in this way, it is a practical 'hands on' tool with a wide variety of learning goals and activities.

Trainers can use it as a source of ideas for participatory methods when developing a training programme for staff in education, health, rural development and even engineering departments and programmes.

Curricula development specialists and staff from ministries of education may find the book a useful **reference document** for integrating SSHE and the development of life skills into the primary school curriculum and teacher training programmes.

Children's age groups

The themes within this book are in principle suitable for all age groups between the ages of two, when some children may enter a nursery or playschool, and fourteen, the age at which most children complete their primary education.

All sheets have been classified by age group as well as type of activity, main subject(s) and learning objectives. This classification should be regarded as indicative rather than prescriptive. Teachers can use their own judgment and discretion in deciding how they can use and/or adjust the material. More information about different types of learning needs in the different age groups can be found in the next chapter on 'Basic concepts'. It is hoped that at a later stage it will be possible to rewrite the guide as an age-group specific document.

The activities use participatory methods and tools which help young children to engage in and benefit from active learning processes. Although they derive from earlier work in Africa, Asia and South America, all activities, materials and methods need to be tailored to fit specific cultural contexts.

Ongoing development

Four areas for further development are envisaged: the compilation and publication of an accompanying package of information for teachers with fact sheets on the different topics addressed in this guide; the establishment of a support mechanism for the training of teachers/trainers in participatory methods of school hygiene education; the documentation and publication of a typical hands-on training course; and making an age-specific guide which incorporates contributions from readers and users of this document.

You can join this initiative

This guide can also be downloaded from the internet. It is, hopefully, not the last. More work will be needed to fully cover good environmental sanitation, water supply and hygiene in preschool and primary school education. The current sheets can also be revised to make them suitable for a wider range of conditions. New sheets on these and new topics can be added. All this will help to make learning about water, sanitation, hygiene and health more effective and enjoyable.

All readers, but especially those who work in school education, water supply, sanitation and hygiene, are warmly invited to join in this initiative by:

- giving comments, observations and criticism;
- suggesting changes for the current texts and/or illustrations;
- telling us how you use the materials and about your experiences;
- telling us where and why you made adjustments, and with what effects;
- sending us your own information sheets or lesson plans for other activities;
- reacting in any other way of your choice.

You will find a feedback form and a format for additional information sheets at the end of this document. The authors pledge that all contributions will get a response and that all contributors will be acknowledged in any updated version. You can send your reactions either to our general address SSHE@irc.nl or to any of the email addresses below.

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Experiment on handwashing, Zambia, Training of Teacher Trainers in Life skills-based hygiene education

2. Basic concepts

School sanitation and hygiene education

Programmes for school sanitation and hygiene education (SSHE) go beyond the construction of water and sanitation facilities. They also aim to improve the education and hygiene and sanitation practices of school-going children and the quality of life of the children and their families, now and in years to come.

Good practices require good facilities that are kept clean and are used by children and teachers in a hygienic manner. Good practices also result from education that is practice oriented, and builds skills and attitudes as well as knowledge.

Addressing sanitation and hygiene in schools is very useful. Young children are far more receptive than adults to new ideas. In their primary school years they can be stimulated to cultivate the habits of good personal hygiene. The promotion of personal hygiene and environmental sanitation in schools can help children to adopt good habits which will last throughout their adult lives.

SSHE programmes reflect a number of important concepts about child education:

- **Effective learning:** Children perform better in a clean and hygienic environment.
- **School enrolment and completion by girls:** Lack of private sanitary facilities for girls often discourages parents from sending daughters to school. It contributes also to absenteeism and dropout by girls, especially during adolescence. Growing girls find it difficult to attend schools that have no sanitation facilities, or a few that are badly maintained. They tend to go home during recess and not return.
- **Reduction in infectious diseases and worm infection:** If sanitation and hygiene facilities are missing or badly maintained and underused, schools become health hazards. Children urinate and defecate behind and around school buildings or in whatever vacant space is available. This is a bad practice, a means of spreading infection, and sends strong negative signals to the children and teachers that this is acceptable behaviour.
- **Environmental cleanliness:** The presence and use of proper water supply and sanitation facilities prevent pollution of the environment and limit health hazards for the community at large.
- **Implementing child rights:** Children have the right to be as healthy and happy as possible in their particular circumstances. Good sanitation and hygiene practices contribute to less disease, better health and better nutrition. As many children around the world fall in the 'mildly malnourished' category, any measure to protect them is a significant investment in human resource development and better childhoods.

The age-based child learning cycle

This document is primarily a source book for making lesson plans with participatory learning activities for children going to pre-primary (nursery) and primary school.

The four age groups of these children are:

- Pre-school age (2-4 years)
- Early primary school age (5-7 years)
- Middle and later primary school age (8-11 years)
- Late primary and early secondary school age (12-14 years)

Children learn in different ways and at different moments. This can be summarised into four stages of the child learning cycle:

- **Exploration:** children have the opportunity to undertake activities related to specific learning subjects and goals.
- **Experience:** all children have opportunities to have their own experiences while expanding their knowledge on a particular subject.
- **Expansion:** children like to interact with each other based on what they have learned from personal experience. This helps them to consolidate, share, and expand their learning with others. Expansion may happen in many ways: in peer groups, with children of other age groups, with the teachers and with parents and siblings at home and in school.
- **Evaluation:** teachers and children evaluate the learning results through a variety of activities designed to discover and strengthen outcomes and impacts.

These four stages occur in the learning processes in all age groups. A lesson or lessons can include some or all of these learning stages.

Which skills, knowledge and attitudes children learn and to what extent they can actively participate in school water supply, sanitation and hygiene projects depends on their particular age group. The following list comes from the book *Child-friendly hygiene and sanitation facilities at schools: Indispensable to effective hygiene education* by Jaap Zomerplaag and Annemarieke Mooijman, which is available in hardcopy as well as in an Acrobat document from the IRC website at www.irc.nl.

Pre-school age (2-4 years)

Skills	Two- to three-year-olds enjoy learning new skills. They are gaining control of their hands and fingers and enjoy playing with and manipulating objects. Their language is developing rapidly and they act more independently. Three- to four-year-olds have a longer attention span. They like to test their physical skills and courage with caution. They can make choices and take some responsibility when given the opportunity.
Knowledge and attitudes	Adults are the ultimate role model. They can help young children develop good sanitation and hygiene habits. The children respond to praise and encouragement and are quite aware of how others respond to them. They use these experiences to develop their own self-awareness.
Participation	In this age group, children are mainly users of water and sanitation facilities. They are generally too young to participate in planning, operation or maintenance. However, they can help with the decoration of facilities. The teacher can also start fun activities to 'clean' the facilities or refill the water reservoir of a handwashing facility. These are, however, learning rather than participation activities.

Early primary school age (5-7 years)

Skills	Children of this age group are very imaginative. They discover the world and their own capabilities in a playful way. In the meantime, they gain self-confidence and make the first steps towards independence. They like to imitate older children and adults.
Knowledge and attitudes	They experience the positive effects of personal care for their appearance (body washing, hair combing, teeth brushing). They tend to value things in a simple way (looking and smelling good means feeling good).
Participation	In this age group, children can start to be actively involved in design, planning, maintenance and operation of SSHE facilities. They are, however, not yet able to take on the responsibilities of adults or older children. Implementation has to be under close guidance of adults, for safety, as well as for learning reasons.

Middle primary school age (8-11 years)

Skills	Children of eight years and older show responsibility and interest in their own well-being, health and hygiene. They can work well together with others and discuss experiences and practices with friends.
Knowledge and attitudes	From this age on, boys and girls become aware of the consequences of poor hygiene practices. They begin to see relationships between theory and practice although they still find abstract concepts difficult to understand. They like watching and taking part in practical demonstrations and are very helpful. They also like to be given particular responsibilities. At this age children also learn that different means or practices can lead to the same results and that it is therefore necessary to compare different solutions.
Participation	Students of this age can be involved as groups in activities to plan, maintain and manage SSHE facilities. They can also be given partial responsibility for implementation, maintenance or operation, such as filling reservoirs, cleaning, painting, etc. Overall responsibility should remain with adults or older children.

Late primary school age (12-14 years)

Skills	Children start to develop social and analytical skills for exploring their position in the community. They can question gender and socio-economic differences.
Knowledge and attitudes	Children of this age group are aware of their own development and growth. Girls start to menstruate. Their experiences create a desire for gender-related privacy. Girls (and boys) can start to become aware of gender disparities. They start to understand abstract concepts around hygiene, environment and social relations. They like to be given tasks and to be trusted to carry them out. They begin to take responsibility for themselves and to develop a sense of social justice.
Participation	Girls and boys can be actively involved in planning, construction, operation and maintenance, with more responsibility than in younger age groups.

Participatory or action learning

Children learn in many ways. In this guide we focus on learning through methods which encourage children to participate actively in learning inside and outside the classroom. The reader will find many different types of participatory activities, from demonstrations and art to competitions, case studies and (simple) surveys. All allow the children to learn about others as well as themselves and their own personal experiences. When used well, all are educational, user friendly and fun.

Action learning and children with disabilities

Action learning stimulates children who are mentally slower. Adjusting the lesson to their speed of development is still needed to account for differences in their physical and mental development age.

Not all activities are equally suitable for children who are physically disabled. Teachers should be selective and make adjustments, especially by stimulating other children to include disabled classmates so that they participate fully for mutual understanding, joint learning and joy.

Children with disabilities soon 'learn' when they are being excluded, whether overtly or covertly. The fullest development of people with physical or learning impairments depends in large part on how they are included. An inclusive approach to disability will stimulate children to counter discrimination on a broader front.

Learning through school health clubs

School health clubs can help participatory learning in a number of ways. They can:

- help children to develop skills to organise and plan, implement and evaluate action;
- stimulate safe hygiene behaviour;
- help to achieve the proper use of SSHE facilities;
- help the proper maintenance of SSHE facilities;
- be a means for reaching out into the community;
- develop gender and social equity in how children understand and divide hygiene-related work and decision-making.

School health clubs often organise sanitation and hygiene games and competitions in school as well as events for parents, families, and the community. School health clubs can be organised in several ways:

- All pupils of a class may be club members, for example, all class 5 or 6 pupils.
- A specific number of boys and girls can volunteer from each class.
- The teacher selects club members in a transparent way, for example based on (generally known) criteria of interest, merit and representativeness.

While the last method may be the most common, it is probably preferred to have a large group (such as all children in a specific class for each year) or for membership to be voluntary. The first two approaches may lead to a better motivated and more representative school health club.

Experience teaches that there are some important conditions. School health clubs should only be set up when female and male teachers and the head mistress/master are ready to support the club and students of different sexes, ages and class want to join. Children of both sexes and all nationalities, religions, ethnic groups and social classes should be able to join, as should children with disabilities. Children and teachers can decide whether other clubs that already exist in the school could, and would, take up health and hygiene-related activities. A club should have its own mandate not only for responsibilities, but also with well-defined rights and influence. Forming a club with unenthusiastic members or with a lack of clarity and guidance is not effective and can demotivate children and teachers and prevent them from implementing improvements.

Teachers responsible for SSHE and/or members of school health clubs often have specific responsibilities and authority, ranging from organising and supervising cleaning activities to monitoring and counselling about the personal hygiene habits of students. There are some risks of discrimination, from teachers to children, between members of school health clubs and in how club members treat other children.

Some examples:

- Older or boy club members or those from better-off families give all or more menial cleaning tasks to younger children, girls or children from families with a lower socio-economic status.
- Teachers and/or school health club members supervise and counsel children about personal hygiene without sensitivity and respect from boys to girls, boys to other boys, girls to other girls and/or teachers to children. Without proper guidance and supervision, older children of either sex can, for example, tease and bully younger ones about their poor hygiene. The same may happen between children from better-off and poor families, and between teachers and - certain types of - students such as girls, students from poor households or minority groups.

Planning for and monitoring equity between sexes and cultural groups and providing counselling is essential. This also goes for allocating support from teachers. Ideally both female and male teachers should support a school health club.



School children involved in SSHE programme welcoming guests to their school (Photo: Mariëlle Snel)

3. Structure of the information sheets

The information sheets for lesson planning in this document all follow the same structure.

General information

Starting at the top of the sheet, you will find information on four key aspects:

- The **overall theme** of the section, e.g. personal hygiene, food hygiene
- The **specific theme** of the lesson(s) that you can prepare
- The **age group(s)** for which the lessons can be developed
- The **participatory techniques** which children and teachers can use during the lesson(s)

Title

The title summarises, in a playful manner, the main issue addressed by the learning activities. Using lively titles makes it easier for children and teachers to recall an earlier lesson. A teacher can, for example, ask: “Who remembers what we learned in ‘Yoopy scoopy’?” In the same way, children may ask, “When can we do the loo race again?”

You will probably have to adjust some titles to the local circumstances and languages; they are given to inspire, not to prescribe. Thinking up new or different titles can also be a fun activity to do with the children.

Learning goals

The sheet also contains the learning goals. They are the specific aims for every girl and boy to have achieved at the end of each lesson or set of lessons. The goals are divided in four categories:

- **Knowledge:** the particular gains in theory, logical thinking and/or scientific insights which the children can master.
- **Attitudes:** the desires, feelings and values which the girls and boys may begin to develop through the lessons. Changes in attitude do not happen at once. They evolve gradually and progressively over time and need continual stimulation and reinforcement.
- **Practices:** the adequate sanitation and hygiene behaviours which the children adopt and demonstrate in school and take with them to promote in their homes.
- **Psychosocial life skills:** the development of children’s capacities to deal more effectively with the demands and challenges of everyday life. The learning activities help children to train their general psychosocial skills such as analysing, problem solving and stress management. This helps them to improve their overall performance and interactions with people in their environment, friends and peers, schoolmates, teachers, family, etc. More details can be found in Life skills-based hygiene education: A guidance document on concepts, development and experiences with life skills-based hygiene education in School Sanitation and Hygiene Education (SSHE) Programmes, which can be downloaded from the SSHE pages or the publication pages at www.irc.nl.

Teaching better hygiene to young children and developing their life skills is only a small part of the work of primary schoolteachers. Their main task is to meet the overall requirements of the school curriculum. Activities on sanitation and hygiene are therefore designed in such a way that they also develop or reinforce other skills in the school curriculum, such as reading, writing, spelling, geography, arts, arithmetic and mathematics.

Methods and materials

For each topic, the sheets describe participatory methods and materials used in each learning activity. There is no need to make expensive investments in new materials as activities are based on materials and equipment that are easily available in and around schools. Other types of material that are easily accessible and/or fit better into the local culture can also substitute the materials mentioned. Paper can, for example, be replaced by slates.

The assumption is, however, that those using the sheets have some experience in working in participatory ways with children through training and experience. Horizontal learning in which young teachers learned these methods hands-on and in turn train other teachers has been found to be an effective way to spread knowledge and skills for participatory hygiene education with school-age children.

Activities

Each sheet contains the necessary steps to prepare and implement one or more participatory activities on a particular subject. They must be easy to do in class and be suitable for the age group for which they are intended. All activities are carried out using participatory and playful learning techniques that are attractive for the children to do and help them to learn effectively. Once the children have gained experience and insights, there are other activities that the teacher can ask the children to do, to practise and reinforce their knowledge, and to share it with other children in school and with their families at home.

Learning indicators

The learning indicators are meant to help the teachers evaluate to what extent the learning objectives that they planned beforehand have been achieved. The indicators can be monitored and evaluated in ways that are simple and easy to apply. There is also a box which contains the expected main competencies that the children may develop, related to the overall theme of the topic.

Adjusting the sheets

There is no single set way to use the sheets. Teachers can adjust them and apply them in a creative manner:

- It is easy to adjust the lessons for other age groups. Many can also be adjusted for use with adolescent girls and boys, mothers and fathers, community leaders, etc.
- Lessons can be easily combined as the themes of hygiene and sanitation are directly interrelated. Teachers can make the processes more sustainable by developing new lessons that fit their overall programme.
- Lessons do not have a fixed duration or location. It is possible to adapt their timing and location to suit the situation in each classroom and/or school.
- Teachers and students cannot achieve the intended learning goals alone. This also depends on the quality of hygiene and sanitation conditions which the school and the community promotes and sustains in line with resources. The quality of hygiene and sanitation depends not only on the available funding, but especially on the efficient, participatory and equitable management of hygiene and sanitation.

- Incorporating good hygiene and sanitation practices depends on whether mothers and fathers, and other family members such as siblings and grandparents, reinforce at home the habits that the children learn in school. It is therefore important that activities in class are combined with other activities which make parents (fathers as well as mothers) aware of sanitation and hygiene, and stimulate them to make their homes into healthy and pleasant places for all members of the family.

To facilitate this process, many sheets contain descriptions of activities at home or in the community. School-age girls and boys can do these activities at home without requiring extra inputs or home visits from the teachers. Many activities can also be adjusted for use with mothers, fathers and other family members, e.g. during parents' day at school.

Part 2 - Information sheets for lesson plans



Two Vietnamese teachers lay out voting results (Photo: Christine Sijbesma, IRC)

Domain: Hygiene

Age group: 2-14 years

Subjects: Personal hygiene, parts of human body, personal hygiene-related ailments

1.1 Clean is beautiful

Learning goals:

Knowledge:

- Children can define good grooming.
- They are able to identify different parts of the body.
- They can tell how common diseases spread through poor personal hygiene practices (e.g. through learning about eye and skin diseases in lower primary school to learning the correct names, transmission and prevention processes and treatments in upper primary schools).

Attitude:

- Children appreciate good personal hygiene practices in self and others.
- They show willingness to keep their bodies clean.

Practical skills:

- Children can demonstrate how to wash/clean different part of their bodies.
- Upper primary girls and boys know how to keep their private parts clean.

Psychosocial life skills:

- Children understand links between poverty and hardship in hygiene.
- They can discuss risky practices without discrimination.
- They can seek help when experiencing problems with personal hygiene.

Participatory methods:

- Singing and miming
- Pair work
- Game (Train Game)
- Pick a question from the basket

Materials:

Water, soap, ashes, commercial toothbrush, stick toothbrush, nail cutter, comb, toothpaste, salt foam from plants (if available), flash cards, slips of paper/cards/slates, (felt-tipped) pens or chalk, beans or seeds.

Activities:

Singing and miming

- Prepare a song for young children that allows them to mime specific habits of personal hygiene. For example:
"This is the way we wash our face...we wash our face...we wash our face. This is the way we wash our face...early in the morning. This is the way we comb our hair, etc. Brush our teeth ...Cut our nails," etc. until all personal hygiene activities have been covered.
- Encourage children, in open discussion, to describe their personal hygiene habits.
- Teach the children to sing the first couplet of the song.
- Encourage the children to come up with their own examples of hygiene.

- Invite children one by one to sing and mime what they have done before coming to school.
- Sing about and mime one practice with them and then ask them to suggest the next practice.
- After singing, stimulate a group discussion on, for example,
 - a) why each practice is important;
 - b) what you need for it;
 - c) what else you can use, e.g. certain twigs for a toothbrush, ashes for soap;
 - d) for older children: what ages their brothers and sisters start the different habits, if they can help them, and how.

Pair work

- Ask children to draw on paper or slates, implements used for personal hygiene, or (for younger children) prepare them yourself. Alternatively, bring some real implements, using local materials, such as a brush made from a dried plant, a twig for a toothbrush, ashes instead of soap, etc.
- Ask the children to form pairs and match the pictures or the implement with the parts of their body on which they will use them.
- Ask them to explain to each other how they are used and why.
- Ask older children to write and read out cards or slates with the names of the implements, the parts of the body and the verbs for the hygiene practices: to comb, to cut, etc. This also helps them to develop their language skills.
- Ask older children to discuss which diseases are prevented by using the implements and why.

To vary the activity, and as a refresher exercise, ask the children to put the cards/slates showing the implements in a pile or mix them up. Now ask the children to match them with the right parts of the body.

For another variation, misspell the words and ask the children to spot the errors.

When working with children from different ethnic groups, ask the children to write the names in their own language and do the word and spelling exercises in their own language as well as in the national language. This activity gives recognition to indigenous languages and at the same time helps stimulate the learning of the national language.

Help children in early puberty to discuss body hygiene by working in small groups of their own sex. Ask them to make drawings, write a story or develop a role-play about an imaginary friend or friends to make the subject less personal and help to open discussion.

Live demonstration

- Ask children to prepare a real live demonstration of good and bad personal hygiene habits. They can use actual materials or act the habits, using mime.
- Ask them to give an explanation of what they show and the reasons why this is good or bad practice, or to use mime to demonstrate in silence.
- Ask the other children to explain what they have seen and why the practice was good or bad.
- Ask older children about specific diseases that may be passed or blocked by these practices, the reasons why such diseases may be passed on and to whom they might be passed.
- Discuss whether good practices are always possible, and why some bad practices persist.
- Ask the children what they will do to adopt good practices themselves and to stimulate them in others.

Train game

- This game combines movement with hygiene learning and habit formation.
- To start off, choose some children to staff a number of train stations: the 'hair station', 'teeth station', 'face station', 'nails station', etc.
- Make sure that choices are fair so that station staff include girls and boys from all socio-economic and cultural backgrounds.
- Line the other children up as train passengers. Tell them that their destination is 'Our Healthy Home'.
- Ask the children to pass each station and station staff to check each passenger.
- Give each station supervisor a number of beans and ask them to award one or two beans to every child according to their knowledge on questions about hygiene for various parts of the body. Older children can give awards on a scale of 1-5, using slips or beans, depending on whether the children are learning to count or add.
- When all children have reached their destination, ask them to count or add up their marks.

The higher the score the more questions they answered correctly. The activity also helps children develop their skills in numeracy.

Explain that the children who obtained lower scores can now improve their scores because they are better aware of the importance of good habits of personal hygiene.

A note of caution

In the train game, and all other activities on hygiene, there is a risk of discriminating against children who are less hygienic for reasons of poverty and/or other problems at home. Quality teachers are aware of such problems and encourage and praise them for practising good personal hygiene with simple means. They also stimulate understanding and social consciousness among the other children. The teacher discreetly helps children with specific problems such as perspiration.

Application

- Have some equipment for personal hygiene in school, such as a pair of nail clippers. Encourage children to ask to use the equipment. Supervise the children in using the equipment and clean it after use.
- Put questions about personal hygiene into a box or basket. Ask some children to pick a question from the basket, read the question to the other children and give the answer.
- Put drawings of equipment or real equipment into a box or basket for younger children. Ask them to pick one in turn and explain their use and benefits.
- As a home assignment, ask older children to list which simple items of personal hygiene are present in their homes, such as a comb, soap, a nailbrush, a nail cutter, etc.
- In class, ask the children to give the name of the first item, write it on the board (or let the children do this) and then tally, or let them tally how many children have the item at home.
- Do the same with the next item, until all items have been listed.
- Use this information to let the children do some numerical exercises, such as counting the tallies and writing the totals in figures behind them, ordering the items from most to least present, and (older children) asking them to calculate the average numbers of each item for the class as a whole.
- Finally, help them analyse what the findings tell them about strengths and weaknesses of personal hygiene.
- Discuss where and how improvements can be made.

Learning indicators

- Children can name the parts of the human body and link them to hygiene habits.
- They can mention risk factors of poor personal hygiene practices and benefits of good personal hygiene practices.
- They can demonstrate and explain how to properly wash hands, brush teeth, wash face, etc.
- They can list daily and weekly good personal hygiene habits.
- Children aged 12-14 feel safe to discuss personal body hygiene and can do so respectfully.
- Teachers observe and counsel children on personal hygiene practices with understanding and without discriminating against children in difficult circumstances or causing them embarrassment.

Competence:

Positive personal hygiene practices



School children in the class room (Photo: Mariëlle Snel)

Domain: Hygiene

Age group: 2-14 years

Subjects: Personal hygiene, parts of human body, health impacts

1.2 I am a 'well-washer'

Learning goals:

Knowledge:

- Children can list correctly the critical times when they should wash their hands.
- They can state the items or facilities used in handwashing.
- They know at least X (number depends on age and level of learning) risks involved in not washing hands.

Attitude:

- Children value appropriate ways and times of handwashing: "I am a well-washer".
- They appreciate the importance of everyone practicing good handwashing: "Are you?"

Practical skills:

- They can demonstrate and explain the correct way to wash hands at critical times.
- They assist younger schoolchildren and brothers and sisters in washing their hands.

Psychosocial life skills:

- They communicate effectively to others the value of handwashing at critical times.
- They make positive decisions on handwashing at critical times.
- They monitor fellow classmates and younger children/siblings on handwashing and, at non-practice, communicate with them about risks involved in not washing hands.

Participatory methods:

- Role-play
- Storytelling
- Discussion
- Demonstration
- Experiment

Materials:

Basin, water, jug, container, soap, ashes, salt, other traditional herbs (e.g. in Zambia: bubal, mutant, imbue), handwashing poster, pictures, marker, newsprint paper, manila paper.

Activities:

Role-play

- Prepare a role-play, for example:
Suzanna (or Ajeet), aged between six and eight, is at home with several younger brothers and sisters. S/he gives the brothers and sisters some food. One brother/sister does not wash his/her hands before eating. The other children do. What does Suzanna or Ajeet do? Their mother/father/grandmother comes home. What does Suzanna or Ajeet do now? (Leave this open.)
- Ask the children in class who wants to play which role or divide the roles yourself. Make sure that different children get the chance to lead and that the division of 'good' or 'bad' roles will not stimulate discrimination.

- Explain her or his role to each child separately.
- Ask the other children to observe and to think about their reactions.
- Discuss the performance. What did the younger children do? How did the older brother or sister react when one of them did not wash hands? What else could s/he have done? Typical actions and answers may be that s/he scolds or hits the younger child and/or tells the mother or grandmother or father afterwards how badly it behaved.
- Help the children think of other ways to handle the situation. For example, the older child can tell younger children how nice it is to eat food with clean hands, how much fun washing is, can set a good example, or can take the children to wash their hands.
- For older children, the scenario can include a socio-economic problem, e.g., the father or mother has died, and there is no water in the house and no money to buy soap. The rest of the procedure (observe and discuss, including alternative solutions) is the same.

Storytelling:

- Form groups of four or five children. Each group chooses their own corner of the class.
- Ask them to choose four to six pictures, e.g., cut from old magazines, and lay them out on the floor to make a story on handwashing.
- Ask each group to present their story in turn to the other children. The activity will help and enhance teamwork, analysis of a situation and public speaking.

Discussion:

- Prepare a poster on handwashing, e.g. by using cuttings from old magazines to depict critical and non-critical times for washing hands. (Those critical for health are after toilet use, before preparing food, before eating food, and after cleaning up babies' or infant faeces and cleaning their bottoms. Good habits, but not crucial in blocking transmission of diarrhoea, are washing when getting up, after eating, and after coming home from work or school.)
- Ask the children what they can identify on the poster.
- Ask them to distinguish between critical and non-critical habits and to explain why.

Demonstration:

- Find out about current practices by asking the children how they wash their hands.
- Ask some children to demonstrate how to wash hands properly.
- Ask them to use soap/wood ash/leaves/rubbing and clean running water, e.g. by pouring water from a jug to wet hands and then apply and rinse off soap, using a basin to catch the dirty water and disposing of this water in a safe way.
- Ask them to demonstrate alternatives to soap, and to show that these require firm rubbing.
- Ask the children to explain why these methods are correct, and why it is important to use the correct method of washing both hands with an agent or rubbing, and clean running water.

Experiment:

- Ask children who think that they have clean hands to come forward.
- Ask these children to wet their hands with water and then dry them on a white cloth.
- Alternatively, ask the children to line up and wash their hands in a common basin with water.
- Fill a transparent glass with this water and another glass with water that has not been used for handwashing. Or pour the used water through a clean white cloth.
- Let the children analyse the difference. What are their observations and conclusions?
- To experience the effect of soap, ask some children to wet their hands with water and dry them on a white cloth.
- Ask other children to wash hands firmly with soap and rinse the soap off thoroughly and then dry their hands on a second white cloth.

- Ask the two groups to compare their cloths to decide the difference made by washing with soap.
- Ask which alternatives can be used if soap is not available or too expensive.
- If wanted, repeat the experiment with these alternatives.

Application:

Whispering game

At break time, as children come out of the toilet, ask them to remind their friends about washing hands. Ask them to whisper in their friend's ear, "Have you washed your hands?" Whispering avoids embarrassing their friend.

Secret ballot

- Place two cardboard boxes, each with a slit, or two partly tied bags on the floor in the class.
- Mark one with YES and the other with NO.
- Screen the boxes with the help of a large cloth (such as a wrap) and a rope, or place them outside.
- Give each child a small slip of paper, newspaper or a leaf.
- Ask them to place their voting slip in the appropriate box depending on whether they have washed their hands with soap, ash or another scrubbing agent after toilet use or before eating on that day.
- Let the children count the votes and discuss the results.

Learning indicators:

- Children can correctly write down the critical times for handwashing.
- Children can demonstrate and explain proper ways of washing hands.
- Older children can give names, symptoms and consequences of three faecal-oral diseases that may spread when hands are not washed properly.

Competence:

Proper handwashing methods at critical times



Handwashing demonstration by school children in Ghana
(Photo: Eveline Bolt)



Singing 'clean hands' song before the school meal (Photo: Kathleen Shordt, IRC)

Domain: Hygiene
Subjects: Personal hygiene, water-borne diseases

Age group: 5-14 years

1.3 The wash song

Learning goals:

Knowledge:

- Young children learn parts of the human body.
- Children learn common routes of water-borne diseases and hookworm.

Attitude:

- They appreciate good hygiene in themselves and others.

Practical skills:

- They practise music skills.

Psychosocial life skills:

- They strengthen creative skills, become aware of personal responsibilities towards others, understanding poverty and gender, develop cooperation and problem solving skills.

Participatory methods:

- Songs, music, mime
- Listening
- Plenary discussion

Materials:

No special materials, but children can use locally made musical instruments, such as sticks, drums and, when available, ready-made instruments to accompany the song.

Activities:

- For younger children, create a simple song about hygiene habits that will prevent locally prevalent diseases, such as eye diseases (trachoma and conjunctivitis), skin disease (scabies), diarrhoea, intestinal worms and hookworm (feet).
- The song should include the names of those parts of the body that may be infected by a water-borne disease (eyes, skin, stomach, bottom, feet) and the parts of the body involved in transmission or prevention (hands, feet).
- Ask older children to make their own song, individually or in small groups. Tell them the parts of the body that should be mentioned in the song.
- Ask children that are already familiar with faecal-oral infections and water-borne diseases to make a song about these diseases that feature affected parts of the body and those parts of the body involved in transmission and prevention.
- Alternatively, ask older children to transform the music of an existing song into different music styles, e.g. rock or rap.
- Teach the children the song. Ask them to point at, move or shake the relevant parts of the body.
- Ask older children to present their songs with accompanying body movements.
- Ask volunteers to list on the blackboard the critical parts of the body (affected and transmitting).
- After singing, facilitate a discussion about the different diseases and their symptoms, transmission, prevention, treatment. Ask the children for example, if they, or their family or friends, have ever had an eye (skin, worm, etc.) infection.

- What did they feel?
- What could others see?
- What is the infection called? (Local names, and, for older children, the medical names.)
- How long did it last?
- What did they/their parents do?
- Why do they think that they got it?
- Did other people also have it?
- Why could that happen?
- For older children, give the causes, symptoms, treatment and draw the diagrams of transmission on the blackboard.
- Ask the children to identify practices that block the spreading of the diseases.
- Ask the children what can deter people from poor hygiene practices. (Examples of obstacles include drought, water points that are too far away, not all families can or want to buy sandals/slippers for children, etc.) What can be done to overcome such problems?
- Ask the children to analyse which of their songs were the most complete. Children can perform the most complete and attractive songs for the lower forms, at parents' days, etc.

Learning indicators:

- Children can point out and name three parts of the body subject to water-borne diseases.
- They can explain for at least three locally prevailing water-borne diseases how these are transmitted and how their transmission can be prevented.

Competence:

Good personal hygiene

Domain: Hygiene

Age group: 5-11 years

Subjects: Personal hygiene, handwashing, faecal-oral diseases

1.4 Showtime

Learning goals:

Knowledge:

- Children know how water and sanitation-related diseases are transmitted.

Attitude:

- They are proud to demonstrate their knowledge and use it with others.

Practical skills:

- They can effectively demonstrate and explain transmission routes.

Psychosocial life skills:

- They can act and express themselves in public, assert skills, demonstrate teamwork, build interpersonal relationships and community skills.

Participatory methods:

- Demonstration or skit (little drama)
- Question and answer
- Plenary discussion

Materials:

Large drinking glass, or transparent glass jar or container filled with clean (clear) water; yellow clay, some glitter, a white clean cloth, a piece of soap, a kettle or other receptacle to pour water, a basin.

Activities:

In 'Showtime', children perform a series of demonstrations and skits (little dramas) about handwashing in front of an audience of other children, parents and siblings (e.g. during an open day or parents' day), or community members at large. The activities can be organised to reflect local conditions.

They perform songs, demonstrations, skits and games as described in, for example, Sheet 1.1, Clean is beautiful; Sheet 1.2, Well-washer; Sheet 1.3, The wash song; Sheet 1.7, HIV/AIDS – a disease you can avoid; Sheet 1.8, The who game; Sheet 2.3, The unseen enemy; Sheet 2.4, The six F's (the ORT demonstration); Sheet 3.1, What's in your water?; and Sheet 3.5, Wash and drain.

Members of the public may be invited to participate in the demonstrations.

- After a performance, ask the audience to explain and comment upon what they have seen.
- Facilitate questions and answers after each session or at the end of the demonstrations and skits.
- Help the participants to come to conclusions about the implications for the relationship school - parents or school - community, for example:
- What materials need to be in school?
- How can we ensure that these materials become, and remain to be, available?

An example:

In the Bikita Integrated Rural Water Supply and Sanitation project in Zimbabwe, mothers gave their schoolchildren the last part of their bars of soap at the start of each new school term. The teachers then formed these bits and pieces into soap balls for handwashing in school.

Application:

- Follow up the performance with a fact finding/observation visit to the school facilities.
- Discuss the findings.
- Identify, plan and organise required action.

Learning indicators:

- Children can effectively demonstrate risky and safe personal hygiene practices.
- They can correctly explain the consequences of risky practices.
- They can interact with family and community members about necessary improvements and the potential roles of the parents and the community, and can come up with potential problem solving action.

Competence:

Facilitating the practice of improved hygiene habits

Domain: Hygiene
Subjects: Food hygiene, eating safe food

Age group: 8-11 years

1.5 Mad mandazis

Learning goals:

Knowledge:

- Children understand the importance of safe food protection and handling.
- They recognise that germs are not visible and obvious but are very dangerous.

Attitude:

- They want to eat only safe food.

Practical skills:

- They learn new words, practise literacy and grammar, story writing.

Psychosocial life skills:

- They learn to listen actively, they learn analytical skills, creative skills, being critical, seeing consequences, how to speak up and withstand pressures.

Participatory methods:

Story without an ending, storytelling and song.

Materials:

A story about food vendors which contains new words.

Activities:

The teacher tells a story about food vendors such as the one from East Africa below. S/he asks the children to listen carefully as they will get some questions at the end.

On a dusty afternoon Mangezi, a flamboyant mandazi vendor, stood under a shaded bamboo tree. "Mandazis!" he crooned, "Buy Mangezi's sweet, sweet mandazis!" He was an eye-catching figure wearing flared, polka-dotted trousers, large, dark sunglasses and a bright red scarf tied around his neck. For some unknown reason he had a sheen of sweat on his brow and every once in a while this would accumulate into a droplet which he would casually brush away with his fingertips. The mandazis stood before him in a high pile. They were smooth, round, golden brown pancakes which had attracted the attention of numerous flies that swarmed madly and energetically around them. A family passed by with a mother, father and two little girls.

"Buy me a mandazi, mama," said the older girl. "I'm hungry."

"We are almost home," responded mother gently. "Wait until we reach home."

"Why do you refuse her food?" asked the father. "In fact I too will have one."

Mother looked doubtfully at Mangezi, who suddenly turned around and disappeared into a latrine on the other side of the bamboo tree. After a while he reappeared, wiping sweat from across his brow and hastily explained that he had a problem with his tummy. Clutching two large mandazis at the top of the pile he handed them to the father and daughter. The family walked away happily, two of them eating the mandazis.

- Ask the children to describe the choices made by Mangezi in handling the food.
- Ask what they would have done in the same situation.
- Make copies of the story, dictate it or ask the children to write it down from memory.
- Ask them to write an end for the story in not more than ten lines, imagining what may have happened after the father and daughter ate the mandazis.
- Invite the children to share the ending of their stories in the group.
- Ask the children to explain the meaning of the new words introduced in the first part of the story.

Application:

Facilitate a discussion about food vending near the school. Is this food always safe? If not, why not? What can happen? What can be done?

Learning indicators:

- Children can name three ways in which food can be contaminated.
- They can explain what may happen when eating contaminated food; older children can name diseases.
- They can name at least three ways to avoid eating contaminated food.
- They can give examples of avoiding risky food/eating safe food at school and at home.

Competence:

Safe eating of food



Food hygiene (Photo: Mariëlle Snel)

Domain: Hygiene
Subjects: Sexual hygiene

Age group: 10-14 years

1.6 My changing body

Learning goals:

Knowledge:

- The students know the signs of puberty in both girls and boys.
- They understand the symptoms and effects associated with maturing during puberty.
- Girls and boys can list good personal hygiene habits related to sexual maturing.
- They know the risks involved if personal hygiene is not maintained.
- They understand the menstruation cycle.

Attitude:

- Both sexes appreciate and respect the processes and changes that occur during puberty.
- They see positively the importance of washing their private parts, and know how to do this.

Practical skills:

- Girls are able to safely dispose of sanitary towels.

Psychosocial life skills:

- Girls and boys build their self esteem.
- They show solidarity with classmates in case of accidents.

Participatory methods:

- Case analysis
- Drawing
- Discussion
- Sharing experiences
- Observations

Materials:

Story, drawing paper, chart on menstruation cycle, slips of paper or cards, (felt-tipped) pens/pencils, fixing tape (only if drawings or cards are fixed on walls), blackboard, chalk.

Activities:

Case analysis

- Prepare and present an imaginative case history, e.g. "Michelo has soaked her menstrual pad. The boys in class start laughing and making remarks at her. She goes to the toilet to change, but there is no water, nowhere to throw the pad, there is no emergency towel to use in the school. In order to avoid further embarrassment, she disappears from school without telling anybody."
- Ask the class to discuss three questions:
 - What does Michelo feel?
 - What does this story tell you about the school?
 - What could have helped Michelo cope with the situation?
- Facilitate the discussion and help the girls to share experiences.

- Tell or invite other stories related to body development, e.g. about the embarrassment and teasing of Hamid (or any other imaginary name), or teasing a boy whose voice is the first (or last) in the class to change, or the embarrassment and teasing of Salina, the first (or last) in her class to develop breasts. The questions about Hamid and Salina are the same as for Michelo.
- Make up or invite stories that relate to conditions and problems at home, as in the following (imaginary, but common) situation in a low-income, high density area in a city in Peru:

Rosita is twelve years old. She has grown a lot and her body has changed. She now feels curious about boys and no longer likes to play her old games with her girl friends. At home, she lives in a small house together with her mother, father, brothers, uncles and cousins. One night when she thinks she is alone she goes to the kitchen to have a bath. When she has undressed, her cousin Juan (John in Spanish) enters and sees her naked. He looks at her with desire. Rosita tries to cover herself and flees.

- What happened to Rosita and how did it make her feel?
- What would you have done in her situation?
- What can her family do to avoid such situations?
- Ask the class to use the case study to build a problem tree. Write the central theme on a slip of paper or card and stick this on the wall or places it on the floor:
“Inappropriate housing conditions for the hygiene needs of adolescents in the family.”
- Invite the children to write the related problems and consequences on other slips or cards, giving one message per slip/card.
- Help the children to work in groups to identify solutions for the identified problems.
- In plenary, help the groups to prepare jointly a final list of possible actions, for example on the blackboard.

Drawing

Drawings can help students to open up on a sensitive issue.

- Ask the children to draw about an event or a development during puberty that embarrassed them. The drawing may be about themselves or about someone imaginary.
- Ask the students to display their drawings on the wall or lay them out on the floor.
- Discuss the drawings in a plenary. Invite children to explain their drawings if so wanted.
- Facilitate a discussion, asking for example:
 - Do others in the class recognise the situation/feeling?
 - What can be the reactions of classmates?
 - What would help you and your classmates in these situations?

Application:

- Take the children to visit the school toilets/latrines. Both sexes will visit both types of toilets/latrines and observe the facilities.
- Ask them to make a list of pro's and con's on the conditions, as individuals or in groups.
- In plenary, help them to consolidate the findings in one list.
- Discuss and make decisions on follow-up action to deal with the negative points.
- Decide on a time table and monitoring of effectiveness.

Possible points that may emerge:

- Presence of water in/near all toilets for personal hygiene
- Reliability of supply of water
- Equity in water collection
- Bucket available in girls' toilets for hygienic disposal of sanitary towels
- Wrapping materials available, e.g. old newspaper
- Bucket and wrapping materials in use

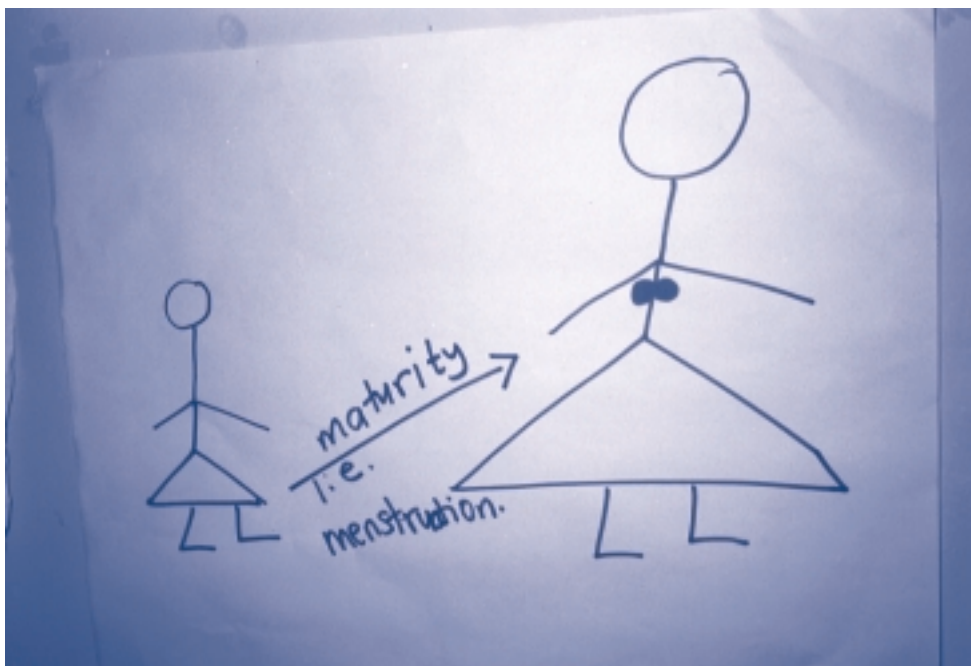
- Presence of cover for bucket; cover seen on top
- Safe final disposal of contents (burning or deep burial)
- Sanitary pads available in school in case of emergencies
- Design and location of toilets does not encourage abuse (bullying, smoking, drug use, vandalism)
- The school has rules on the proper use of toilets and monitors their application

Learning indicators:

Children can mention physical changes in girls and boys during puberty.

Girls can describe how and when to clean private parts, with reasons, to a female teacher. Boys can do the same to a male teacher. (Boy and girl adolescents should know how women and men can safely clean their private parts. Both boys and girls need to keep clean to avoid infections, and to know that when they are adults infections can be passed between sexual partners.

Facilities, e.g. water, bucket, wrapping material are available in toilets/latrines and used correctly for disposing of sanitary towels. Bucket contents are disposed of timely and in a safe way.



Drawing during training of master trainers in Zambia (Photo: Christine Sijbesma, IRC)

Competence:

Preservation of personal hygiene during puberty

Domain: Hygiene

Age group: 12-14 years

Subjects: HIV/AIDS transmission, impacts, prevention

1.7 HIV/AIDS - A disease you can avoid

Learning goals:

Knowledge:

- Children know the meaning of the terms HIV and AIDS.
- They can identify ways in which HIV can be transmitted.
- They can tell how transmission can be prevented.
- They can distinguish between correct and wrong cultural beliefs and practices.

Attitude:

- They realise that HIV/AIDS is widespread and a real risk.
- They realise that HIV/AIDS can be avoided.
- They come to appreciate that people may get infected because of their circumstances.

Practical skills:

- They can identify items that may transmit HIV if not used safely e.g. needles, razor blade.
- They can collect articles and/or illustrations to give information and discuss HIV/AIDS.

Psychosocial life skills:

- They can communicate effectively with others on the good and bad traditional beliefs and practices associated with HIV/AIDS.
- They can express their values in relation to these beliefs and practices.
- They are able to make responsible decisions on sexual behaviour under pressure.
- They can seek help in situations that they cannot handle on their own.
- They show empathy towards people with HIV/AIDS and their families.

Participatory methods:

- Poems
- Drawings
- Discussions using stick figures, question/problem box

Materials:

Old magazines and papers with articles and illustrations, and actual items that can be used to demonstrate transmission and blockage of transmission of HIV/AIDS, pamphlets, posters and booklets on HIV/AIDS, real stories.

Activities:

Poems

- Invite the children to make poems on subjects related to HIV/AIDS, e.g. people living with HIV/AIDS, children becoming orphans, students reacting to the death of a teacher. If necessary indicate a minimum and a maximum length.
- Ask each student to recite her/his poem.
- Invite the class to determine the main subject of each poem and one student to write the subjects on the blackboard.

- At the end, help the class to order the subjects into a classification, e.g.
 - the symptoms of HIV/AIDS;
 - the effects on a person's health;
 - the social hardships for these persons;
 - the consequences for their family;
 - the ways of transmission;
 - the reasons for transmission;
 - the steps for prevention of transmission, physically and socially;
 - misconceptions on prevention and cure and how to deal with them.
 - support to patients and their family - in care, work, hygiene, food, understanding...
- Help the students to identify all categories of transmission: sex-related, by having unprotected intercourse with someone with an HIV infection, blood-related when sharing infected needles, razors, etc., from infected mothers to their children during birth and breastfeeding.
- Facilitate a discussion on the list of subjects, including safe sex practices and how to negotiate these (abstinence, refusal, negotiating safe sex including condoms).

Drawing

- Invite the students to make drawings of situations related to HIV/AIDS - ways of transmission, situations that led to transmission, consequences for the persons and their family, etc.
- Invite the children to display their drawings and if necessary explain them.
- Facilitate an analysis and discussion of the subjects covered and subjects missing in the same way as under 'poems'.

Cut and paste

- Collect old magazines, newspapers, cards, etc. and also ask the children to bring them.
- Using tear or cut and paste, ask the students to make small posters depicting how HIV/AIDS can be transmitted, addressing transmissions related to blood, sex and motherhood.
- Ask the students to display their sheets on the walls or floor.
- Facilitate a peer review round in which they check each other's posters for completeness of the three transmission categories.
- Depending on what is culturally acceptable, let the students take their posters home for home discussion, share them with community groups for discussions, use them at parents' day, etc.

Stick figures exercise

- Draw simple figures, such as stick figures, of a typical family on pieces of paper or slates, one person per paper/slate. They may, for example, be a father, a mother, a grandmother/father, an adolescent son, an adolescent daughter, a younger son, a younger daughter and a baby.
- Mark one of the pictures on the back with a cross or a dot.
- To start the activity, place all figures with the front side up on the floor.
- Introduce the family and explain that one of its members has been infected with HIV/AIDS.
- Ask the children some introductory questions, e.g.
 - What happens to you when you are infected?
 - How can you become infected?
- Now ask the children to turn the pictures over to see who in this family has HIV/AIDS.
- Facilitate a discussion on what it means to have HIV/AIDS for this person, his/her family and his/her community and on some of the wrong ideas about how the disease can spread and be prevented/stopped.
- Facilitate a discussion with the students, e.g. on:
 - what they can do to help this family cope with the disease;
 - how the other family members can prevent becoming infected;
 - what advice and support they would give to their age mates in the family.

Risk identification exercise

This activity can be done in plenary or with small groups.

- Collect a number of sharp objects, e.g. a needle, a knife and a broken piece of glass.
- Invite the class to think of how each item could play a role in transmitting HIV/AIDS.
- When done with small groups, give each group an item.
- Encourage the children to come up with different examples, e.g. needles used by medical staff and by drug addicts.
- Encourage each group to come up with a story for their item:
 - How a young person became infected with that item
 - Why that happened
 - How another young person was able to avoid the risk
- Invite each group to tell their story in plenary.
- Help the class to draw conclusions on the risks and what young people can do to avoid these.
- Ask the class which transmission risks these items do not symbolise (sexual transmission in various situations, transmission from infected mothers to their babies at birth and when breast feeding). Which are the most common forms of transmission? How many people get infected through broken glass? (Hardly any.) How many through sexual intercourse? (Very many). Why would sharing needles be more dangerous than treading on glass? (Injecting fluids into body, many users, likelihood of needle already being infected).
- Discuss how to prevent sexual transmission - which sex practices are safe and unsafe, how to agree on abstinence, negotiate for safe sex, how to refuse when under pressure.

Application:

Role-play

- Divide the class into small groups or ask for one or two volunteer groups.
- Ask the groups to prepare a role-play for the next lesson about how using and giving in to pressure can lead to becoming infected with HIV/AIDS and what this then means for the lives of that person and his/her family.
- Invite the groups to perform their play.
- Facilitate a discussion about sexual pressures and power differences between peers, older and younger persons in the school, the family and the community (e.g., 'lover boys', 'sugar daddies' authority figures including teachers), and ways to cope with various situations of sexual pressure. Where would you go for help?
- Facilitate a discussion about the relationship between HIV and the need for clean water. (People who are ill find it difficult to collect water or fuel to boil water. HIV damages the natural protection inside the body, so people who are infected are more vulnerable to infections from polluted water. AIDS creates orphans who do not have parents to teach them about clean water. Schoolchildren who have learned these lessons can help the community to understand them.)

Problem box

- Place a problem box or bag in the class.
- Invite children to write their questions and problems and put them in the box.
- Read the questions yourself and select those that are suitable for discussion.
- Invite a student to read the first question.
- Invite the class to answer the question. Add or correct as needed.
- Continue until all questions suitable for answering in public have been covered.
- Tell children who want more help in answering their questions where they can get counselling.
- If the school has no counselling, raise and address the need with the head of the school and the other teachers.

Learning indicators:

- Children can identify at least two HIV/AIDS transmission routes, three signs and symptoms of HIV and can explain the terms HIV and AIDS.
- Children can give examples of, and show empathy with, social problems that contribute to the spread of HIV/AIDS infections.
- In mentioning ways of prevention, they demonstrate assertiveness (signs of knowing that you can say 'no').
- They know where to seek help in case of problems and actually do so.

A note of caution

Discussions about HIV/AIDS can often focus on non-existent risks (HIV from mosquitoes, sharing cups, toilet seats). It is important that the teacher is well informed, can help the children to focus on the real risks in their lives and can counter misinformation.

Competence:

**Increased awareness of HIV/AIDS,
empathy and risk-avoiding behaviour**

Domain: Hygiene, sanitation, water supply

Age group: 2-14 years

Subjects: Gender and school sanitation, water and hygiene

1.8 The 'who' game

Learning goals:

Knowledge:

- Children understand what is meant by 'gender'.

Attitude:

- They comprehend the importance of gender awareness.
- They want to enhance gender equality.

Practical skills:

- They can do a practical gender analysis of their (school) environment.
- They can make and read a table, add and subtract, do percentages (depending on the age group).

Psychosocial life skills:

- Children develop analytical skills, skills for creative thinking, assessing consequences and generating alternatives.

Participatory methods:

- Plenary quiz
- Plenary discussion

Materials:

- Slips of pink and blue cards, or any other two items that may denote 'girls and women' and 'boys and men', one set per child.

Activities:

Gender quiz

This quiz can be done once, or several times with different questions. It can also be repeated to evaluate change.

- Start a discussion on gender and poverty issues in the community, asking for example:
 - What do girls do at home and in the village? And boys? Women and men?
 - What are the differences?
 - Why do these differences occur?
 - Are there any changes in these roles: can girls and women now do and achieve other things than in the past? And boys?
 - Are these differences the same for everyone? Or do some girls and boys have more work and fewer opportunities than other boys and girls? Why is that the case?
 - What do you think of these differences and developments?
- Explain that these kinds of differences between girls and boys and between women and men are called 'gender' differences. Explain that gender differences are made by people, in contrast to the physical differences between girls and boys, and women and men.
- Explain that the class will now do the 'gender quiz' to see how gender can affect school sanitation and hygiene education.

- Give each student two slips of paper – a pink slip (representing girls and women) and a blue slip (representing boys and men).
- Explain that you will ask a number of questions and that the students will answer either question by raising either a pink or a blue slip. Tell them that:
 - When you think the answer to the question is **girls or women**, you raise the **PINK card**.
 - When you think the answer is **boys or men**, you raise the **BLUE card**.
 - When you think the answer is both **girls/women and boys/men**, you raise **BOTH cards**.
- Tell the students not to think long, but just to raise the card which they think is best.
- Choose some gender quiz questions from the box or make your own questions.
- For easier analysis, write the questions on the left-hand side of the blackboard or a large sheet of paper, leaving space to tally the answers (see the diagram below).
- Ask one of the children to tally each answer on the blackboard or the paper.

	BLUE	PINK	BOTH	NEITHER
Understanding water points	I	III		II
Understanding latrines				
Need latrines				
etc.				

Sample questions for the gender quiz

Understanding the need for school facilities for hygiene

- Who in the community usually understands the need for water points in the school, men or women?
- Who in the community usually understands the need for latrines in the school, men or women?
- Who has the greater need and demand for latrines in the school, boys or girls?

Use and maintenance of SSHE facilities

- Who uses the school latrine most, boys or girls?
- Whose latrines are cleanest after use, the boys' or the girls'?
- If water must be carried to the school, who usually fetches it, boys or girls?
- Who keeps the area around water points clean?
- If the water is stored in the school, who cleans the containers and cups? Boys or girls or neither?
- Who cleans the latrines, girls or boys?

Involvement in construction and repairs

- Who participates in construction of water, sanitation or handwashing facilities in the school, men or women?
- In construction, who has paid jobs, men or women?
- In construction, who does voluntary (unpaid) work, men or women?
- Who do you think would make repairs, men or women?

Spreading health messages

- In many programmes, children are asked to give messages about hygiene and sanitation at home. Who usually hears these messages, women or men?
- Who is most likely not to hear about the hygiene education their children receive in the classroom, fathers or mothers?
- Who benefits from the SSHE programme, boys or girls?

The school health club

- Who are members of the school health club: girls, boys or both?
- If the members do any cleaning work, who does it: girls, boys or both?
- Who does the most interesting/attractive work: girls, boys or both?
- Who does the least interesting/attractive work: girls, boys or both?
- Who makes club decisions: girls, boys, both? Or someone else, e.g. the teacher?

Adult roles in SSHE

- Who shows younger children how to use a latrine, male teachers or female teachers (or neither because other people do it)?
- Should a leading SSHE teacher be male or female?

Gender in the community

- Who are the members of the water committee (or any other committee) in our village?
- Who is the chairperson?
- Who in the committee mostly makes the decisions?
- Who do you think should make decisions on water and sanitation?
- When all have voted, ask the student(s) to add up the figures.
- Use the table to facilitate a discussion about the questions and answers.
- Use the table also for practising arithmetic (adding, subtracting) and mathematics (e.g. calculating percentages).
- When analysing the answers, help the children understand that boys and girls are different but equal and that both have the same responsibilities and rights. Work and decision making should therefore be shared equally, although there are, of course, some differences, for example, in hygienically using the school urinals.
- Help the students analyse if there is gender equality between girls and boys in their class, school and clubs, and if not, what they will change and how.

Domain: Sanitation
Subjects: School sanitation, hygiene, water

Age group: 2-14 years

2.1 My beautiful school

Learning goals:

Knowledge:

- Children become aware of safe and unsafe methods of storing and drawing drinking water in general and in their homes.
- They can visualise their home environment (geography).
- Enhancement of spelling, language, writing, speech.

Attitude:

- The children want to promote healthy home environments.

Practical skills:

- Older children look after the drinking water storage reservoirs in class.

Psychosocial life skills:

- Children can communicate with adults (parents) about home sanitation.
- They build analytical skills, free speech, observation skills, communication skills, evaluation skills, skills to generate alternatives.

Participatory methods:

Drawing, modelling, using real objects; voting/scoring; participatory planning and monitoring

Materials:

Pieces of cardboard, or paper and carton, or clay as locally available; (finger)paint, brushes, scissor/knife/razor blade, paper

Activities:

Puzzle

- For the younger ages, prepare four or more drawings on a firm background, using local materials depicting good practices in using the school toilets, water supply and handwashing facilities, e.g. a boy urinating in a latrine, a girl defecating in a latrine.
- Cut the drawings up into puzzles of 4-6 pieces for the youngest children, increasing the number of pieces by age. Alternatively, students in the upper forms can make the puzzles for younger children.
- Divide the children in small groups (one per puzzle).
- Ask the groups to make the puzzle and give it a name.
- Tour the classroom with the groups to look at the different puzzles, invite comments on the practices and reinforce the good practices shown in the drawings.
- In plenary, have a discussion about what the children saw and learned.
- With older children, facilitate a discussion about what good practices are, why they are not always followed, what may happen and what can be done.

Environmental walk

- Take the children on an environmental walk to visit the school facilities.
- Stimulate them to observe the conditions carefully and to note any bad smells. Alternatively, pair off younger and older children, so that the older child can help the younger one observe.
- In class, ask the children to describe what they have seen and smelled. In the case of older children, they can first write down their observations before expressing them.
- Facilitate a discussion about:
 - the reasons why the facilities/services are in the present state;
 - the risks that such facilities/services represent;
 - what can happen to children who use facilities/services in such conditions;
- Assist them to reflect on the bad and the good practices and on how they could move from the bad to good practices.

Application:

- Use the activities to help the class prepare and implement a simple plan for hygienic use and maintenance of facilities.
- Young children can make drawings on good practices for display at the facilities, the older ones can make written messages.
- Older ones also make a plan for cleaning. In the plan, all children of the same age will share the work equally - no discrimination against girls, ethnic or religious groups.
- Older children can play a role in guiding younger ones and in helping them to make their own commitments and plans.

Learning indicators:

- Young children can tell the proper use of the water, sanitation and hygiene facilities.
- They can mention three characteristics of a clean school environment.
- They can mention 2-3 consequences of bad hygiene conditions.
- Children show signs that they feel responsible for their own hygiene and that of others.
- They use the facilities properly to the extent that repeated environmental walks show sustained improvements to the extent possible.
- There is equity in participation in maintenance for both sexes and all races and religions.

What if the school has no toilet?

In pre-school, it may be possible to use potties and bury the excreta. A latrine for small children is better. Potties may be a risk if there is no communication with the parents, however. In one country, a pre-school teacher taught the children to use a potty. Lacking a potty at home, one child used a regular pot to defecate in. The mother was very upset and punished the child. When the child told what had happened to the teacher, she realised that it was her fault and she went to the child's mother to explain.

What if there is no larger maintenance plan?

Schoolchildren cannot do all the maintenance for school latrines. Maintaining, repairing and improving facilities requires cooperation between the school, the parents, the local authorities, the Ministry of Education and the local health centre.

Domain: Environmental sanitation
Subjects: Solid waste disposal

Age group: 2-4 years

2.2 Ouch and bah

Learning goals:

Knowledge:

- Children learn to identify various types of solid waste and where they occur.
- They can identify negative implications of careless disposal practices.
- They develop the idea of waste as a resource.

Attitude:

- They develop positive attitudes towards a clean environment and waste as a resource.
- They are willing to make efforts themselves to keep their environment clean, reuse waste and stimulate others to do the same.

Practical skills:

- They dispose of waste in a safe way, including for recycling/reuse where possible.
- They clean up solid waste in school regularly and systematically without discrimination by age, sex or other social, economic and cultural characteristics.

Psychosocial life skills:

- They can analyse personal and other risks, assess consequences, think critically, identify and practise alternatives, do not practise discrimination and correct discrimination.

Participatory methods:

Group discussion, handling items, environmental walk

Materials:

Solid waste items of a different nature which are common locally, such as a maize cob, a banana peeling, a sweet wrapper, a glass bottle or jar, a piece of broken glass

Activities:

- Show the items to the children.
- Ask them to say what each item is.
- Other questions may be, for example: Where can banana peelings (sweet wrappers, pieces of glass, etc.) be found? What has happened to them that they are lying there?
- Guide/help the children carefully to touch each item. How would they describe the inside of the banana? What might happen if you were running and you stepped on a banana peel? What is the shape of the maize cob? What might happen if you were running and you stepped on a maize cob? How does the edge of a piece of glass feel? What would happen if you stepped on it?
- Ask the children what they do with sweet wrappers and what happens if everyone throws their wrappers on the ground.
- Finally, facilitate a discussion about better means for disposal and reuse of waste. Possible questions:
 - Where should you throw waste?
 - Are there ways in which you could use an empty jar or bottle, a maize cob, peelings of fruits? (e.g. reuse or sell empty jars or throw in a recycling bin; make compost; use for fuel)
 - What will you do if you see a friend throwing away a? (fill in as appropriate)

Application:

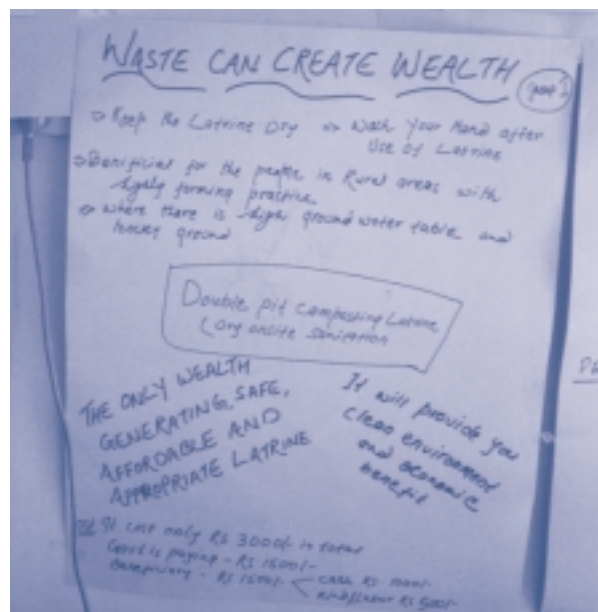
- Ask the children to bring solid waste materials from home which can be used in class. Examples: coloured postcards which can be cut up to make puzzles and which the children can use to form small groups (assignment: find the child or children who have the matching piece or pieces of a postcard); newspapers which can be used for folding paper hats and sailing boats; tins and string which can be used to make pairs of stilts to walk on.
- Take an environmental walk with the children. Ask them to name the kinds of waste that they see in and around the school. Ask them to guess who may have thrown it there and why and how it could have been safely disposed of or reused.
- Older children or the teacher collect items in a bag or bin, protecting his/her hand with e.g. a plastic bag, disposing of the bag and washing hands with soap afterwards. (It is not recommended that young children pick up waste themselves.)
- The school organises learning experiments and school projects on composting and reuse of biodegradable waste and excreta (compost and urine as part of eco-latrines and urinals) in school; using the compost and urine for trees and school gardens.

Learning indicators:

- Children can mention at least two different types of solid waste.
- They can tell where these items can be found.
- They can give two examples of negative effects of solid waste and two examples of recycling/ reuse.
- In school, they throw waste in bins/compost pit. No solid waste is seen in the school yard/bushes around the school.
- They can mention at least two examples of recycling/reuse in school and/or at home.

Competence:

Keeping the surroundings clean Recycling and reusing waste as a resource



Waste can create wealth
(Photo: Mariëlle Snel)

Domain: Environmental sanitation
Subject: Worm infections

Age group: 5–14 years

2.3 The unseen enemy

Learning goals:

Knowledge:

- Children can describe the transmission routes of worm infections.
- They can list ways by which transmission of worm infections can be prevented.
- They can list the signs and symptoms shown by a person infested with worms.

Attitude:

- They appreciate the importance of handwashing and cooking food thoroughly.
- They demonstrate willingness to prevent worm transmission and to get medication for treatment if infected.

Practical skills:

- They develop drawing skills for diagrams.
- They can wash hands correctly to prevent worm transmission.

Psychosocial life skills:

- They can make correct decisions not to play in soil and understand the importance of handwashing at critical times.
- They communicate effectively to others about the prevention of worm transmission.
- They are assertive in seeking for help and treatment for worm infections.

Participatory methods:

- Storytelling
- Drawing – F diagram
- Picture and/or word matching
- Interaction with guest speaker
- Field trip

Materials:

Pictures of different transmission points (F diagram), cards, pencil/marker, eraser, newsprint paper, manila paper, wool or string or local materials such as stalks of grass or thin twigs that can be shaped into arrows

Activities:

Storymaking and telling

- Ask the children to think of/write a story and give it an interesting title e.g. “My Life as a Worm”.
- Ask each child to share his/her story with the rest of the class. (Creative writing and speech skills will be developed in this exercise.)

Drawing F diagram and discussion (for older children)

- Help the children to draw the F diagram.
- First ask a child to draw a picture of a child with worms and to place this on the left-hand side of the blackboard or on the ground on the left-hand side in a circle of standing or sitting children.
- Ask another child to draw a picture of a healthy child and place this on the right-hand side.
- Ask the children how the worms can travel from the child with worms to the healthy child.
- Ask some children to draw a picture of each travel mode, or to write the word concerned on a card, slip of paper, or slate and place the pictures or cards/slates between the pictures of the children.
- Ask the other children to introduce transmission lines, using, for example, twigs or twine, until the diagram is completed.
- Check the work to see that all risky practices and connections are included.
- Now ask the children to describe these transmission routes and discuss how transmission can be prevented.

The activity can also be done in small groups. The teacher then helps to compare the results in plenary and makes corrections or additions as needed. The activity can also be used to add local words, match them with terms in the official language, and play card placing games to develop language skills.

Picture and word matching

- Collect pictures and match written words and sentences depicting different situations related to a child suffering from worms.
- Mix them and display them on a table or on the ground.
- Ask the children to pick one picture and one matched written card, read out the card and explain the relationship. (This method helps to make children observe, analyse critically and develop speech and language skills.)

Guest speaker and field trip

- Invite a health specialist such as the local nurse to come and speak about worms, transmission and prevention, and when the children can and should come for treatment. Plan for a related field trip, e.g. to the hospital or to areas commonly used for defecation, such as waste fields, canal, lake or river banks, bushes on the way to school and around water points.
- Visit the school toilets with the health specialist for observation of faecal contamination, or its absence. (Mud, sand or dust in latrines are no health risk and may be unavoidable in some seasons.)

Application:

Social map

- Ask groups of older children to prepare social maps on which they depict the main locations in their community where children and adults defecate.
- Ask them to present their maps in class.
- Facilitate a discussion asking what the consequences may be, why this behaviour is practised and what they can do about it.
- A special point for discussion is what happens to the stools of babies and infants. Can they also contain worms? People often wrongly believed that this is not so, but stools of young children often contain worms. What can be done to avoid worms from babies being passed to other people, such as sisters and brothers, and mothers?

Washing hands before school meals

This is often difficult to organise and a good topic for taking up as a problem solving exercise.

- Ask an older school class or the school health club to think of ways in which they could get everyone to wash hands before eating – and how to do so quickly.
- Ask them to think of ways to ensure the availability of soap or soap alternatives.
- Ask them to think of ways to ensure that the handwashing area stays clean and waste water is properly disposed of.
- Challenge them to come up with methods that are sustainable and equitable.
- Help them to try out the methods and if necessary improve them.

Learning indicators:

- Children can describe at least three routes of worm transmission and two major methods of worm prevention.
- They can mention the risks of worm infection and give examples of infection and treatment in their own school/home environment.
- They are aware of safe areas to play.
- Handwashing facilities are seen to be available and toilets are observed to be free of faecal contamination at all times.
- School toilets are used by the schoolchildren and they and the school surroundings are free from faecal contamination.
- Children practise good hygiene, e.g. wash their hands at critical times and in the right way, use toilets, observe hygiene in toilets, cover food and water, etc.
- They assist smaller children and younger brothers and sisters to improve their hygiene practices.
- They can describe how they, their friends, sisters or brothers were treated against worms.

Competence:**Hygienic practices to reduce worm infestations**

Domain: Environmental sanitation
Subject: Diarrhoeal disease transmission

Age group: 11–14 years

2.4 The six F's

Learning goals:

Knowledge:

- Children can describe transmission routes for diarrhoeal disease.
- They can mention ways by which transmission of diarrhoeas can be prevented.
- They can state the signs and symptoms of a person suffering from diarrhoea.
- They know about dehydration effects and how to prevent/treat them.
(The six F's are faeces, fingers, food, fluids (water), flies, and fields).

Attitude:

- They appreciate the importance of handwashing and cooking food thoroughly.
- They are ready to practise good sanitation and hygiene and to stimulate others to do the same.

Practical skills:

- They develop drawing skills for diagrams.
- They can wash hands correctly to prevent transmission of diarrhoeal diseases.
- They can make an oral rehydration solution.

Psychosocial life skills:

- They can make correct decisions on handwashing at critical times.
- They communicate effectively to others about preventing diarrhoeal diseases and preventing and curing dehydration.

Participatory methods:

- Drawing - F Diagram
- Demonstration on oral rehydration

Materials:

Paper or cards for drawing and writing words, pencils/markers, manila paper (optional), wool or string or local materials such as stalks of grass or thin twigs that can be shaped into arrows, a transparent plastic bag filled with water (preferably yellow or light brown in colour), a pin or other sharp object, a small basin, a glass with clean water, some sugar and salt, a teaspoon

Activities:

F Diagram for diarrhoeal diseases

The activity is a variation on the F diagram on worms. It can be done in plenary or by small groups of children. In the latter case, the teacher compares the results in plenary and helps to add any missing risks/connections. The diagrams can differ from each other; what is important is that each diagram depicts all six F's with accurate connections.

- First ask a child to draw a picture of a child with diarrhoea and to place this on the left-hand side of the blackboard or on the ground on the left-hand side in a circle of standing or sitting children.
- Ask another child to draw a picture of a healthy child and place this on the right-hand side.
- Ask the children how the diarrhoea may pass from the ill child to the healthy child.
- Ask some children to draw a picture of each travel route or write the word concerned on a card, slip of paper or slate and place them between the pictures of the children.
- Ask the other children to add in transmission lines, using, for example, twigs or twine, until the diagram is complete.
- Check the work to see that all risky practices and connections are included.
- Now ask the children to describe transmission routes and how transmission can be prevented.

Demonstrating oral de/rehydration

- Facilitate a discussion about diarrhoea:
 - Who has had diarrhoea?
 - What happened?
 - Whose young brother or sister has had diarrhoea?
 - Is diarrhoea a common disease in the community?
- Show the children a transparent bag filled with yellowish or brown water.
- Explain that the bag represents a baby or a young child who has diarrhoea.
- Tell the class that the baby/infant is about to poop and ask them to watch carefully what happens.
- Invite one of the children to come and pierce the bag with a sharp object.
- Ask the class to describe what happens. (The bag empties and becomes wrinkled and limp.)
- Facilitate a discussion about what will happen to the baby/infant. (Together with the excreta, the child loses all the fluids in its body and starts to dry out and become limp.)
- Ask what the mother, father, brother or sister can do when this happens (replenish the fluids).
- Now demonstrate what kind of fluid to give to someone with diarrhoea who loses a lot of water along with the stools. Fill a glass with clean water, put one heaped spoonful of sugar and a pinch of salt in it and vigorously stir the mixture. Ask what this mixture will do.
- Facilitate a discussion on why the water should be as pure as possible (but water that is not fully sterile is better than no water at all).
- Invite one or more children to come and taste the oral rehydration treatment (ORT) mixture and describe its taste. (They should taste both sugar and salt; the salty taste can be described as 'as salty as tears'.) Explain why sugar and salt are added.
- Help the class draw conclusions on ORT (why, when, what, how) and what they can do if someone has diarrhoea at home.

Application:

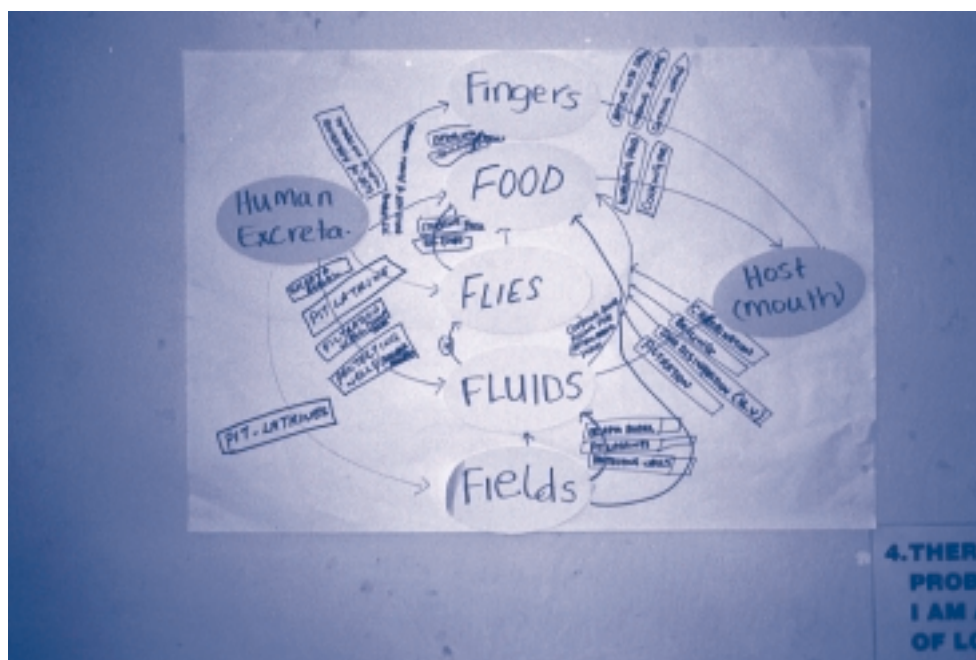
- The children find out whether their parents know about ORT, explaining what they have learned in school. They report their findings and experiences in class. The teacher monitors whether knowledge on ORT increases over time.
- The teacher organises an environmental walk to find the six F's in school, linking the walk to actions that can bring about improvements.
- Arrange a simple home survey, during which each student finds out which of the six F's are safe or unsafe in their homes. During the next lesson, the teacher assists them to document their findings in a table. They use the table to analyse, identify and communicate about improvements, and to practise arithmetic.
- Demonstrations of dehydration and rehydration, the F diagram and the outcomes of mini-surveys can be given at parents' days, followed by discussions about possible actions for improvement.

Learning indicators:

- The children can explain what the F diagram shows and what each F stands for.
- They can demonstrate and explain faecal dehydration and ORT.
- Handwashing and toilet facilities are available and seen to be in use and toilets and the school surroundings are free from faecal contamination.
- Teachers and children monitor handwashing at critical times through the 'whispering game' and observations. (See also sheet 1.2, I am a 'well-washer')

Competence:

Knowledge and practices to reduce infections and death from diarrhoeal diseases



Six F diagram from Training of Trainers, Zambia (Photo: Christine Sijbesma, IRC)

Domain: Sanitation and hygiene

Age group: 8-11 years

Subjects: Diarrhoeal diseases, handwashing, latrine use and hygiene, economic water use

2.5 Racing to the loo

Learning goals:

Knowledge:

- Children know the critical times, proper ways and reasons for washing hands.
- They know which diseases are transmitted by not washing hands.
- They become aware of the implications of wasting water.

Attitude:

- They see washing hands as important for their own health and for that of others.

Practical skills:

- They wash hands after toilet use and before eating in school. They do not waste water.

Psychosocial life skills:

- They analyse behaviour, think critically and creatively, practise free speech, come up with alternatives, are aware of gender and social equity issues, and do not discriminate against others.

Participatory methods:

Physical competition

Materials:

Two buckets with water, two scoops, soap or substitute, e.g. ash or clean sand

Activities:

Part of this activity takes place outside. Note that the children will get wet so it has to be a warm and sunny day.

- Invite the children to talk about a situation when they or others had diarrhoea and had to race to the loo, but ran into a problem. Alternatively, they can draw the situation and explain or look at the drawings and guess what the drawings are about.
- Divide the class into two equally sized groups, for example, by asking the children to count aloud if they are number one or two, or an elephant or a lion, or any other two names that are locally appropriate.
- Take the two groups outside.
- Place two buckets with an equal amount of water and two cakes of soap, on a leaf or a plate or something similar, at one end of a long stretch of open space and at some distance from each other.
- Ask the children to choose one child in each group who will be the water dispenser, or choose two children yourself, (making sure not to always choose the same children or to exclude children from disadvantaged groups).
- Explain to the dispensers that they will pour some water over the children's hands and after they have washed with the soap, pour some water again.
- Position yourself between the two buckets as the referee.
- Explain that the two groups will race each other to the buckets and wash their hands. The next child can start when the first one has come back.

- When the buckets are empty, explain that the group has won that had the largest number of children who had washed their hands when the bucket was empty.
- Back in class, facilitate a discussion asking, for example:
 - Why is washing hands important?
 - What may happen if you do not wash your hands?
 - When should you wash your hands? (including baby care)
 - What are good ways to wash hands?
 - Can anyone wash hands? If not, why not? What can be done?
 - Who does sometimes not wash hands? Why? What can be done?
 - Why do we want to save water? How can we do this?
 - Do we waste water in our school/home/community? What can we do about it?
 - For older children: Which diseases are spread through lack of handwashing?

Variation

Eye infections are common in dry and dusty climates. They can be prevented by more frequent face washing. Unfortunately, there are often strict norms in such areas to restrict water use, even for personal hygiene. Older women and men in the family may criticise children and young mothers who wash their faces regularly. The amount of water needed is, however, often less than thought. Face washing competitions in class and at a parents' day can help counter this belief.

Application:

- Visit and observe the handwashing facilities with the children to check that there is proper drainage, presence of soap and no leaky faucets. If there is no soap, discuss alternatives: Can the children bring left-over soap to school, e.g. the pieces left over from clothes washing? In some schools children keep a piece of soap in their pencil box. The school may also organise ashes or clean sand for handwashing.
- Asks the children to observe if a friend is washing hands after using the toilet and talk to them if s/he does not do so. Some schools place handwashing basins on wash stands on the school veranda. The teacher and fellow students check if children wash their hands when returning from the toilet.
- Older children accompany younger ones to teach them good latrine use and about handwashing.

Learning indicators:

- The children can correctly give/write down 2-4 critical times for handwashing. They can demonstrate (with explanation) how to wash hands correctly. They can give two consequences of not washing hands and of wasting water.
- They can explain how socio-economic situations affect hygiene. They do not tease other children about the quality of their clothes or their home conditions.
- They regularly clean the water storage reservoir without discrimination or regularly clean their water bottles. They share drinking water hygienically with children who do not have bottles of their own.

Competence:

Hygienic and non-wasteful use of water

Domain: Sanitation
Subjects: Latrine design and construction

Age group: 8-14 years

2.6 Building blocks

Learning goals:

Knowledge:

- Children understand how latrine slabs are made.
- Children learn the differences between school and household latrines.

Attitude:

- They develop a feeling of pride in and ownership of the school latrines.
- They appreciate good quality technical work.
- They come to see domestic latrines as affordable.

Practical skills:

- They learn how to measure.
- Older children learn how to make a 'mortar' mix.
- They experience how cement is moulded and shaped and learn how to cure it.

Psychosocial life skills:

- They do away with gender stereotypes on technology (technical skills for both sexes).

Participatory methods:

Demonstration, do-it-yourself exercises

Materials:

Measuring tape, angle

Activities:

Sanitation platform/SanPlat construction

The teacher takes the children to see the artisan mixing the cement, sand, ballast and water to create the concrete. The artisan can explain the proportions of the various ingredients. S/he also shows how the mix is placed with the mould for the platform and explains reasons for and methods of curing. Girls and boys assist in keeping the platform(s) wet to cure the concrete (i.e. help it to set solid).

Pegging of the superstructure

The teacher takes the children to meet the technician/construction person. S/he explains the measurement of the superstructure and where the pillars will be put to give it support. The children can be involved in verifying measurements with the help of the mason. They can peg their own ground plan for a household latrine.

Application:

When children and parents see school latrines, they sometimes think that building a household latrine will be as expensive. To prevent misunderstanding,

- ask them to list the differences between a school latrine and a domestic latrine;
- ask them to draw a domestic latrine using local materials;

- invite the mason to explain the differences between a school latrine and household latrines in design and costs to the children and their parents;
- facilitate a discussion about the different materials that can be used in building a household latrine, and how a family could gradually improve its latrine over time. Make an inventory on the blackboard of the different materials that the families of the children, or in the village, have used for building a latrine.

Depending on the curriculum, sessions can be added on other technical skills, e.g. building a drying frame, making a soak pit, making a compost heap, making soap, treading a pipe, fixing a handpump or replacing a washer on a tap.

Learning indicators:

- All children can measure and set straight angles correctly.
- They can give at least three differences between a school latrine and a household latrine.
- They can explain the importance of having a latrine and everyone using it.

Competence:

Basic technical know-how



Child-friendly pre-school latrine in India (Photo: Mariëlle Snel)

2.7 Wonderful waste

Learning goals:

Knowledge:

- Children learn to identify various types of solid waste and where they occur.
- They can identify negative implications of careless disposal.
- They develop the idea of waste as a resource.

Attitude:

- They develop positive attitudes to a clean environment and waste as a resource.

Practical skills:

- They dispose of waste in a safe way, where possible for reuse.
- They develop practical skills and at the same time skills in geography (mapping), numeracy (simple statistics), science and technology (solid waste recycling).

Psychosocial life skills:

- Children strengthen skills in cooperation/teamwork; relationship building with the community; self-awareness/skills to assess their own behaviour; skills for critical and creative thinking, problem solving, and to assess risks; learn to generate alternative methods; gather and evaluate information; and to exercise self-control.

Participatory methods:

Group work with life objects, social mapping, matrix scoring

Materials:

Paper, drawing materials, locally available waste materials

Activities:

- Ask the children to go out and bring different types of waste materials from the school environment. Alternatively, you can ask the children to bring materials to school the following day.
- Ask the children to exhibit all the materials that they have brought. Ask them to put the same materials together (cans with cans, paper with paper, etc.).
- Facilitate a discussion with the children on which materials are perishable and which are non-perishable.
- Facilitate a discussion about the various risks and nuisances: e.g. bad smell, insects breeding, rats, and implications for health (e.g. vector-borne diseases, insect-breeding and insect-borne diseases (e.g. when mosquitoes breed in water in empty cans, drums, etc. and spread dengue), accidents (cuts, falls), general contamination and degradation of the environment.
- Facilitate a discussion about reuse/recycling practices in the homes of the children and in the community. Add information about the various recycling activities in the community or neighbouring areas.
- Explain the recycling methods.

Application:

- Ask the children to prepare social maps of solid waste deposited in and around the school. The children/groups report on, and analyse, their maps in class.
- Older students show their maps in the more junior classes in the school and facilitate a discussion.
- Students and teacher show the maps and report their findings and analysis to the school management and community leaders. This is followed by action planning in the school and the community to address solid waste problems.
- The school practises some forms of waste recycling and/or reuse.

Learning indicators:

- The children can list at least five types of waste in their area.
- They can distinguish between organic and inorganic waste.
- They can give at least three example of reusing waste and describe at least one recycling method.
- In school, they throw waste in bins/compost pit. No solid waste is seen in the school yard or in bushes around the school.
- The mapping is repeated after some time to assess the impact of action planning.

Competence:

Keeping the school surroundings clean and reusing what is now thrown away



Keep the school surroundings tidy (Photo: Mariëlle Snel)

Domain: Water and Hygiene

Age group: 5-7 years; can be followed up later, e.g. at 10-14

Subjects: Domestic hygiene, safe water collection

3.1 What's in your water?

Learning goals:

Knowledge:

- Children understand the possible sources of contamination between the source and the mouth.
- They understand that water can look clean and clear but might still be unsafe to drink.
- They understand possible sources of contamination if water is not stored safely.
- They gain knowledge about the safe water chain.
- They begin to understand about faecal-oral disease transmission, and the concept of germs.

Attitude:

- Children reject contamination of water sources.
- They perceive that having safe drinking water sources and safe methods of collection are important for their own lives and that of their families.

Practical skills:

- Children can demonstrate at least two ways of safely transporting water.
- Children monitor and guide classmates and younger brothers and sisters.

Psychosocial life skills

- Children can think critically.
- They can think of and communicate alternatives.
- They can do so with adults (in our example with their mothers).

Participatory methods:

Role-play, short skit (drama)

Materials:

No materials required

Activities:

This example is a role-play which the teacher can prepare. Older children can make their own dramas.

The play has the following parts:

- Mama Wanjiku (or any other locally appropriate name)
- Two elderly men
- A thirsty and tired traveller
- A husband
- A baby child

The role-play is set in a rural village where the source is located two kilometres from the village. Mama Wanjiku travels with a bucket without a cover to collect water. When she reaches the water source, she draws the water into her bucket. She does not clean the bucket first. In the meantime one gentleman is relieving himself in the nearby bush. A few minutes later a drunken man staggers near the same bushes and pauses to blow his nose into his fingers. He stares at the contents in his hands, makes a face and mumbling under his breath proceeds to wipe his hands on the leaves at the top of the bush. He then staggers away.

Mama Wanjiku has filled her bucket, and reaching the bush, stops to collect her leaves. She needs these leaves to prevent the water from splashing, and also to reduce dust and the number of insects that may get into the water. She picks the nearest leaves on the bush, clearly the same leaves that were used previously by the two men. She goes on her way home. On the way, she meets a traveller who is very thirsty and asks her for some water. Mama Wanjiku gives him some water from her bucket. The traveller walks on. After some time he is violently sick.

Mama Wanjiku continues home and serves the water to her husband and the little baby at home to drink. She also drinks herself. Some time later the baby, her husband and she herself are seen to be unwell.

- Ask for five volunteers and give each his or her role separately.
- After the performance ask questions to help the children reflect critically, for example:
 - What kind of container did Mama Wanjiku use? Was it suitable or unsuitable? Why?
 - What should she have done before putting the water in the container?
 - Where else did the water get contaminated? Why?
 - How would you have done better?
 - What could Mama Wanjiku's husband have done?

Application:

- Ask the children to accompany their parents in the process of water collection. Tell them to observe good and bad practices and discuss these with them politely.
- Ask older children (10-14) to do a simple observational survey in groups at the village water sources. They can, for example, list for the first five users:
 - the types of container;
 - the sex of the persons collecting;
 - the perceived age groups of the persons collecting (agree in advance how to divide age groups);
 - whether the collectors rinsed the container before filling;
 - whether they washed hands or not;
 - whether they put leaves on top or not;
 - whether their hands touch the water during transport or not.
- In class, help the children enter their observations into an overall table (example below).
- Use the assignment to facilitate a group analysis and draw conclusions on the characteristics of water collectors and safe and risky collection behaviours. Some sample questions:
 - What type of persons did you see most often collecting water?
 - What may that mean for the lives of these persons?
 - Did most collectors use safe practices? What do you see in the table?
 - What kind of person(s) used safe practices?
 - What do you conclude about hygienic water collection in our village?
 - Do the observations give the true picture or may it be different at other times?
 - What could the users have done better?
- Use the data also for arithmetic (adding, percentages, etc.).
- Ask the children to work out, individually or in small groups, the totals of safe and unsafe water practices for each group and write these down in a table such as the one on the next page.

No. of persons	Male	Female	Child	Adolescent	Adult	Elderly	Rinse		Leaves		Touch	
							Yes	No	No	Yes	No	Yes
1	x			x				x		x		x
2		x		x				x		x		x
3		x			x		x		x			x
4		x		x				x		x		x
5		x	x					x		x		x
		x										
TOTAL	1	5	1	3	1	0	1	4	1	4	0	5

Learning indicators:

- The children can list containers that are safer and less safe to transport water.
- Children can describe ways in which water contamination can take place.
- Older children can critically observe, record and analyse water collection behaviour on health and social aspects.



Demonstration of school children in Gujarat for better hygiene
(Photo: Kathleen Shordt, IRC)

Competence:

Safe water chain

Domain: Water
Subjects: Safe sources of drinking water

Age groups: 4-14 years

3.2 I drink.....safe water!

Learning goals:

Knowledge:

- The children know the importance of safe drinking water and the risks of drinking water that is less safe.
- They can distinguish between safer and less safe sources.
- They know the local water environment (geography).
- They can describe water treatment processes (science and technology).

Attitude:

- They prefer to drink safe water.

Practical skills:

- They can purify water.
- They can draw, cut, model things.

Psychosocial life skills:

- Free expression, interpersonal communication; analytical skills.

Participatory methods:

Drawing/finger-painting and questioning. For older children also other forms of image making, such as cutting and pasting, and making paper or clay models.

Materials:

- Paper and pencils, paint or markers, or slates and chalk, or paper, scissors and glue, or modelling clay
- Drinking cups; glass bottles for solar disinfection; utensils to boil water.
- A saree, pot with gravel and sand, or other materials for filtering water, according to local feasibility and practices

Activities:

- Ask the children from where they get their drinking water.
- Ask each child to draw/model/cut and paste his or her drinking water source (techniques adjusted to age).
- Let them display their drawings on the wall or floor; older children may also group drawings by type of water source.
- Facilitate a discussion about what children and others do in these sources, e.g. swim, wash clothes, bathe, water animals, wash cars/lorries, take drinking water, etc.
- Encourage the children to discuss what this means for the cleanliness of the water and what this may mean for their stomachs if they drink this water.
- Ask older children to write the names of water-borne diseases in local and official languages on the blackboard/slates/cards/notebooks.

Demonstration

- For younger children, show the preparation of safe water according to what is locally feasible. For example, where people may not have access to enough fuel and/or time to boil water, focus on solar disinfection or water filtration, e.g. using a sand filter or a three-folded saree. (The saree will not purify the water, only sift out larger particles.) (For filtration, see also 3.6 Filtering the flow.)
- With older children, facilitate a discussion about feasibility of the various treatment methods, asking for example:
 - What may dissuade people from boiling their drinking water?
 - What makes it hard for some children to bring safe(r) drinking water to school?
 - What alternatives can they think of to solve/reduce problems?

Application:

- Let the children make a drawing on the importance of safer drinking water in whatever way they wish (free expression). Ask literate children to add messages.
- Let them take the drawings home to show and, if agreed, put it on the wall at home.
- The next day/lesson, facilitate an open discussion about what they have done at home with the drawing and how their parent(s) reacted.
- For older children, link the activity with an experiment (e.g. solar disinfection (SODIS) of drinking water or sand filtration, link with a visit to the local water facilities, etc.)

Monitoring sources of drinking water

- Monitor practices in class. Did all children bring safe(r) drinking water from home? If not, do not blame the child, but find out why, and follow up with the parents.
- For older children, do a pocket voting exercise, as described below.
- Draw, or let the children make drawings of the different local sources of drinking water.
- Lay them out on the floor, or hang them on the wall, always at the back of the class.
- Fix or place a paper bag or any other receptacle under each drawing.
- Give each child a bean, seed or slip of paper for voting. Let each child go to the back of the class and ask it to place the bean or slip in the receptacle under the source which their family generally uses for drinking water.
- At the end of the exercise, help the children display the contents of each bag on the floor, count the numbers and write them in a table on the blackboard.
- Facilitate a discussion on safe and unsafe sources and ways of problem solving.

Learning indicators:

- The children can list safer and less safe local drinking water sources. They can explain the consequences of drinking unsafe water.
- Older children can mention at least one disease caused by drinking unsafe water (by e.g. writing them on slates or cards).
- Children are proud to have safe drinking water in school.
- Older children help clean and refill reservoirs with clean water and/or help to improve drinking water habits or conditions in the school/home/community.
- Children drink safe or safer water whenever possible.
- They can draw, cut, model things. For older children: they can demonstrate simple treatment methods; home practice of safe water source use.
- They show skills of free expression and inter-personal communication; analytical skills; awareness of local realities including gender and poverty; sympathy with less fortunate others (empathy); capacity to make own decisions.

Note:

The reality in many schools, communities and homes is that it is still difficult to have 100% safe drinking water. The teacher can focus on which are the safest sources of drinking water locally, and what might be done to use these for drinking water, and how other drinking water can be made safer.

Competence:

Safer use of drinking water



Children drinking water in India (Photo: Sunil K. Dutt)

Domain: Water and Hygiene

Age group: 5-7 years

Subjects: Domestic hygiene, safe water storage

3.3 What a surprise!

Learning goals:

Knowledge:

- Children grasp the possible sources of contamination if water is not stored safely.
- They gain knowledge on the safe water chain.
- They begin to understand about faecal-oral disease transmission, and about the concept of germs.

Attitude:

- Children value safe drinking water in school and at home.
- They recognise and can discuss gender roles/inequalities in water and hygiene.
- They are ready to discuss and demonstrate safe water handling at home.

Practical skills:

- Children can obtain drinking water in school and at home.
- Children monitor and guide classmates and younger brothers and sisters.

Psychosocial life skills

- Children can critically analyse situations on hygiene and gender perspectives.
- They can carry out an assignment independently and on time.
- They can think of and communicate alternatives.
- They feel responsible for other children's safe practices as well as for their own.

Participatory methods:

Case study, demonstration

Materials:

Water storage container, notebooks/slates, (slate) pencils

Activities:

- Read a story that tells about a typical unsafe way of locally storing and drawing water. The story below comes from East Africa.

Once upon a time there was a beautiful green village called Kanaki with very happy people. It was the dry season and there was a lot of work to be done. In one of the homes there lived a very beautiful lady called Asante who used to be the beauty of the village. She was married at the very young and tender age of thirteen to a much older man called Kemunto. He did not want her to go to secondary school because he was not educated himself and saw no purpose in it. He also felt that there was too much work to do around the house and on his farm.

One day, as many other days during the dry season, Asante returns from collecting fire wood at 7.00 o'clock to prepare morning porridge for breakfast. Her husband is waiting outside the house impatiently. He wanted to take a warm bath. He demands that she gets him warm water for a bath as the water within the clay pot in the house was only enough to drink and make the morning porridge. It would take a minimum of one hour to get the water. Although Asante is tired from her

work, she obeys him and leaves the homestead. While Kemunto is sitting under the tree waiting for the water his five-year-old son wakes up and asks him for a cup of water. Kemunto goes to the clay pot and removes the lid. He draws water using an old, dirty tin. His son drinks the water and gives back the tin. Kemunto puts the tin back into the clay pot. He does not bother to replace the lid on the pot. Half an hour later two neighbours come to his home to discuss the election of the local councillor. They are interested in gaining Kemunto's support. As they look for chairs they ask him, "Where is the tea in this house?" Kemunto quickly explains that his wife is away but he can offer them some water.

As they follow him to the water pot, they notice that there is no lid. Kemunto puts his hand in the clay pot to get the tin. At that moment, he feels something move and it is not the tin! To the astonishment of Kemunto and his guests a big brown rat runs over his arm and drops with a thud to the ground. The men fall silent as Kemunto tries to behave as if nothing has happened! The aspiring councillor turns to Kemunto and says, "What is wrong with you - do you not know how to store your water safely?"

- After reading, ask questions to help the children think critically about the story, for example:
 - Was there a difference in the work and responsibilities of Asante and Kemunto?
 - How would you have gone about the water storage and handling the situation if you were Kemunto?

Application:

- Show the children how to store and draw water using a container in the classroom.
- Ask the children to look at how their drinking water is stored at home.
- Ask them to observe good and bad practices of storing water.
- If so wanted, ask them to make a drawing of the storage method.
- Ask each child to describe what they have seen, or to show and explain their drawings.
- After each description, ask the child if s/he thinks storage and drawing methods are safe or unsafe.
- Draw two columns on the backboard labelled 'safe' and 'unsafe'. In the one labelled 'safe' write the safe methods. In the 'unsafe' column, write down the unsafe methods (or ask the children to do this).
- Ask the children to copy the two lists in their books/onto their slates and take the lists back home to discuss.

Learning indicators:

- The children can mention at least two safe and two unsafe methods of storing and drawing drinking water.
- They can demonstrate, by drawing, in mime or with life objects, a safe way of drawing water from a storage pot.
- They can explain the consequences of unsafe storage and/or unsafe methods of drawing drinking water.
- They can mention inequalities in workload and power between the man and woman in the case study.
- They can indicate how they can promote safe water drawing in school/at home.

Competence:

Developing and using safe ways of storing and drawing drinking water in an equitable manner

Domain: Water

Age group: 5-9 years

Subjects: Safe storage and drawing of drinking water

3.4 Yoopy scoopy

Learning goals:

Knowledge:

- Children can distinguish between safer and less safe methods for storing and drawing drinking water.

Attitude:

- They want to use safe storage and drawing methods.

Practical skills:

- They learn to draw, read, spell and learn new words, including the equivalents for ethnic words.
- They draw and drink drinking water in class and at home in a safe manner.

Psychosocial life skills:

- They develop observation skills, analytical skills, skills of free speech, and child-parent cooperation.

Participatory methods:

Drawing, labelling, sorting, chart making

Materials:

Paper, pencils/slates, chalk, blackboard, cards or slips of paper

Activities:

- For the younger ages, prepare drawings of different implements used locally to store and draw drinking water, e.g. a drum, a pot, a bucket, a bottle, a jerry can, a filter, a ladle, a dipper, a jar, a tin, a cup, a glass. Include the items used in school.
- Also prepare cards or slips of paper with the names of the implements.
- Lay out the drawings on the floor and ask the children what the drawings represent in their local language.
- Now ask the children to group the drawings into storage vessels and drawing vessels.
- Put the name cards in the national language under the drawings or ask the children to do so, with equal participation by girls and boys of all ethnic, social and religious groups. Older children may write and place the cards themselves.
- Ask a child to read one word and to give the equivalent in their own language. Continue with another child until all words have been translated.
- Repeat the activity as a group exercise.
- For older children, or for younger children when they know the words, mix up the drawings and/or name cards and ask groups of children to regroup them.
- Ask the children to identify which types of water storage vessels/water drawing utensils are safer and less safe and give reasons for their choices. This can also be done as a sorting game, by ordering them into less safe and safer, or from worst to best.

Application:

- Ask the children to make a drawing of their water storage and drawing utensils at home and bring it to school. Ask older children to fold a paper into six or eight squares, or divide their slate into four to six squares, and in each square draw one hygiene utensil in their home.
- During the next lesson, draw a matrix with drawings or names of the different utensils. Tally, or ask some children to tally the types of utensils that the children have drawn on the black board. Let the children count or write the final numbers in the squares.
- Ask the class or individual children to give the names of the utensils and the totals for each of them. Older children can make their own tables in groups, with the teacher aggregating the results.
- Facilitate a discussion on which utensils are safer and less safe. Help the children analyse the situation. This may include a discussion on why some families may have less safe utensils, with the aim of creating understanding/empathy and avoiding teasing. Discuss also the provision in school.
- Ask older children to discuss in groups, analyse and arrive at their own conclusions.
- Ask the children to share their work and discussions with their parents at home.

Learning indicators:

- Children can correctly describe two safer and two unsafe ways of storing and drawing water.
- They can demonstrate correct handling of water using various utensils.
- They can correctly name the utensils and spell the names.
- They can count and add up correctly.
- They understand socio-economic differences, and how they influence water storage and drawing practices and can make realistic suggestions for improvements.
- They regularly clean the water storage vessel in class without discrimination, and/or regularly clean their own water bottles. They share their drinking water in a safe way with children who have no bottles and do not tease other children about their home conditions.



Girl students underneath hanging SSHE cards (Photo: Mariëlle Snel)

Competence:

Safe use of drinking water

Domain: Environmental sanitation

Age group: 8-14 years

Subjects: Source contamination, environmental protection, water quality and quantity

3.5 Wash and drain

Learning goals:

Knowledge:

- Children become aware of how different water sources in their community are used.
- They learn which uses negatively affect the quality and quantity of the water.
- They can identify possible impacts on health and social and economic development.

Attitude:

- They are ready to take steps to protect their water resources.

Practical skills

- They can draw, cut, make small-scale models.
- They can make two and three-dimensional models based on their physical and social geographic knowledge.
- They practise reading, writing, spelling, ethnic and national languages.

Psychosocial life skills:

- They strengthen skills in cooperation/teamwork; self-awareness/skills to assess their own behaviour and that of others; skills for critical and creative thinking; problem solving skills; analytical skills to assess risks; relationship building with the community; skills for generating alternatives; skills for gathering and evaluating information; self-control skills.

Participatory methods:

Modelling, presentation and discussion

Materials:

Sheets of (white or brown) paper; felt-tipped pens, finger-paint or pencils in different colours; natural materials available near school or homes such as pebbles, twigs, sand/soil, an old tin; glue and scissors (optional), small cards or slips of paper, in two colours, if needed

Activities:

- Ask the students to identify which types of water sources are found in their communities: a river or stream, a pond, a lake, a dug well, etc. Ask the students to form groups according to the type of source in their area.
- Invite each group to depict their source in the way they prefer, for example by making a drawing using markers, paint or pencils, using tear and paste/cut and paste methods, or making a three-dimensional small-scale model using material that is available in school, at their homes and in the community.
- When each group has depicted their source, ask them to identify the practices in the community that contaminate the source and the uses that people make of water from the source (water uses). Ask them to use either different coloured cards for contaminating and water drawing/water uses or write in two colours to show the different types of use (contaminating uses and other, productive uses).





Three techniques (cut and paste, drawing and modelling) and three types of water sources in Viet Nam (pond, river and well) with their uses and ways of contamination
(Photo: Christine Sijbesma, IRC)

They can depict the items as drawings and add a label for each drawing, or use only labels.

- In areas with different ethnic groups, ask students to make labels in their own language and in the national language.
- Let each group present its product in class, explaining the different uses and how these may affect the quality and quantity of the water available now and in future.
- Ask them to mention also the environmental, economical, social and health consequences. (Who will be affected negatively by which uses?)
- Monitor each presentation and invite the other students to add uses and/or contaminating practices.
- To consolidate learning, ask the class to summarise the contaminating practices and the environmental, social, economic and health consequences on the blackboard and in their notebooks.
- Facilitate a discussion about possible actions by the students as individuals and as a group.

Application:

- Reuse the pictures/models for activities in language and/or geography lessons or for games. For example, give each group their label cards back or mix them up and have a competition to see how soon each group can place the right cards under the right drawings, or how long it takes for the whole class to complete the work.
- Let students present their work to the more junior classes, to the PTA, to community leaders and/or at a parents' meeting to generate awareness, and to promote analysis and problem solving on integrated water resources management.

Learning indicators:

- Children can mention the main water resources in their community.
- They can mention at least five ways in which these water resources can be contaminated.
- They can mention the social and economic consequences of this contamination for at least three different water user groups in the community.
- They can name three diseases that may spread through contaminating uses.
- They know the names of related diseases and of the different water uses in their own and in the national language, and can spell these words correctly.

Competence:

**Environmental awareness and
- where possible - action towards a better environment**

Domain: Water supply

Age group: 8-14 years

Subjects: Water quality, water treatment, parts of human body, personal hygiene related ailments

3.6 Filtering the flow

Learning goals:

Knowledge:

- Children can outline environmental factors that result in unsafe drinking water.
- They can explain how water can be purified.
- They can indicate (and older children can explain) the relative effectiveness of the different methods.

Attitude:

- They appreciate good water quality and reject water from an unprotected source for drinking and preparing food, particularly uncooked food.
- They want to protect water sources and treat drinking water.

Practical skills:

- They can demonstrate different purification techniques.

Psychosocial life skills:

- They understand the importance of consuming clean water for health.
- They appreciate the implications of how gender and poverty issues can influence water purification and can contribute to reducing inequalities.

Participatory methods:

- Demonstration
- Plenary discussion

Materials:

A clean, white cloth, a clean plastic bottle, a knife, a small piece of wire mesh, coarse pebbles, coarse sand and fine sand, a transparent container, a jar with water which is muddy and contains parts of vegetation and possibly insects

Activities:

Filtration to demonstrate dirt

- Ask some students to take a clean white cloth and show it to the class.
- Ask them to place the cloth over an empty container and tie it firmly around the opening.
- Explain to the class where the water comes from. Ask the students to pour it through the cloth. Ask them to describe what they see on the cloth.
- Ask them to loosen the cloth and hold it, and the container, up against the light for the class to see. Ask the other students to describe what they see and to discuss what may, and may not be retained by the cloth.

Filtration for purifying water

- Make a sand filter in advance for the younger children or help older children to make their own sand filter.

- Cut the bottom off a clean and clear plastic bottle. Cut out a circle of fine mesh to make a wire screen large enough to block off the neck of the bottle. Put the screen inside the bottle so that it is firmly lodged halfway down its neck.
- Put a layer of coarse pebbles on top of the screen, then a layer of coarse sand, and finally a layer of fine sand. Pour some dirty water into the bottle and let it soak through.
- Ask the children to observe the colour of the water that drops into the bottle.
- Explain that the sand traps germs, but that over time it gets clogged by the particles of dirt. It needs to be taken out of the filter and cleaned or replaced every few weeks. Replace it when the water trickles more slowly or stops flowing altogether.

Purification using ultraviolet rays

- Get a transparent bottle and fill it with muddied, dirty water and close the container.
- Lay the bottle horizontally in strong sunlight on a flat surface, preferably black in colour (e.g. a piece of black plastic). After five hours in strong sunlight the water is safe to drink, because the ultraviolet rays destroy the micro-organisms that cause illness.

Application:

- Ask the children to discuss which of the different ways of cleaning water they found easiest to use. Ask them if they know other methods to purify water and how water is made 'safe and clean' in their homes.
- Ask them to explain each method orally or in writing and to identify which methods are safer and which are less safe or unsafe. Younger children can make three piles (safe, less safe and unsafe). Ask older children to do a full ranking.
- Ask them to explain why some methods are safe and others not.
 - Boiling, if done for at least ten minutes but if possible 20, is safest.
 - This is followed by slow sand filtration, chlorination and solar disinfection. Boiling, chlorine and strong sunlight all kill bacteria. Slow sand filters form killer bacteria which 'attack and eat' other bacteria that are harmful to health.
 - Filtering through a cloth is least safe. The cloth filters the large bits of dirt, but does not attack and kill bacteria. Some are small enough to slip through the threads of the cloth. To illustrate this, draw a diagram of a woven cloth.
 - Alum and certain seeds clarify water but do not kill bacteria.
 - Water directly from an unsafe source is totally unsafe.
- Discuss which practices make a water source unsafe to use for drinking. Discuss how these practices can be changed.
- Discuss what work is required for each method of purification. Who will do this work? Who may have problems and why? What can be done?

Learning indicators:

- Children can mention how water in water sources can get contaminated and what may happen as a result (see also 3.5 Wash and Drain).
- They can mention different methods of making water cleaner and safe/safer to drink.
- They can explain which methods are safer or less safe and why.
- They are aware of constraints that some households may face in drinking safe water and can suggest problem solving actions.

Competence:

Purifying water for drinking

Domain: Water supply

Age group: 8-14 years

Subjects: Source contamination, water quality

3.7 The rainmakers

Learning goals:

Knowledge:

- Children can outline environmental factors that result in unsafe drinking water.

Attitude:

- They feel able to evaluate good and bad behaviours related to the use of water sources.

Practical skills:

- They can discriminate effectively between safe and unsafe water for their use.

Psychosocial life skills:

- They can work in a group, act a skit, express themselves, reflect and analyse/think critically, are aware of and want to change gender and social inequalities, can make realistic suggestions to solve/reduce problems, can make decisions to change their own unsafe behaviours.

Participatory methods:

- Skit (little drama)

Materials:

Seven children

Activities:

- Identify seven children who want to do a skit.
- Share the story below or a similar story. Choose names in the local language. Give each child a role.
- Support the group to emphasise the sounds and noises for effect and humour.

The scene opens on a deserted, make-believe pond. Mama Atieno arrives, carrying a bucket of washing. Singing a song, she unloads her washing and begins to wash her clothes. After a while a herd of goats, represented by two children on all-fours come in, snorting noisily and being herded by a third child. He watches his goats watering, and then turns to urinate on the bank of the water source. After Mama Atieno finishes her washing she begins to bathe. Two women walk in with pails on their heads and (using make-believe calabashes) start to transfer water into their containers. At this moment a local teacher (child number seven) comes in and silently observes the group.

- Ask the group to stop what they are all doing. Draw attention to activities that are going on using rhetorical questions such as, 'Mama Onyango, are you really going to draw water here rather than from the protected well?'
- Explain the source of the contamination levels stepwise, which can result from defecation near the water source, clothes washing, livestock grazing, bathing, swimming, vehicle washing, etc.
- Invite questions from all children to get them to understand how many diseases can result from the contamination.

For younger children, the skit may stop with the identification of the different contaminating behaviours and the understanding that urine, animal excreta and stools may in this way enter the water and may be scooped up in diluted form by those who collect water.

- Link the story with questions and answers about, and an overview and explanation of the diseases that can come from drinking or standing in contaminated water. Depending on age, include official names, symptoms, transmission, prevention and treatment.

Application:

- Ask the children to list all practices that may contaminate water in the various water sources in the community.
- Ask them what can happen when other people drink or stand in this water. Ask the children for local names of diseases that may be transmitted.
- Ask older children to give also the official names of these diseases and their symptoms, prevention and treatment.
- Play writing, listing and sorting games, e.g. the children have to match local names of diseases with official names, match diseases with symptoms, prevention and treatment, and link practices with diseases.
- Question and answer games: one half of the class can give practices and the other half must then give the possible disease. Correct answers get a positive mark, wrong ones a negative one. After a given number, the roles are reversed and the other group gets the chance to ask about (new) behaviours.
- Make a table on the blackboard with five persons who differ in sex, age, and the kind of work each one does. Give each person a local name and talk about what they do that is related to water (e.g. swimming, cattle watering, farming, mining).
- Now ask which kinds of contamination may occur due to the practices of each person and discuss why this is so and what can be done.
- In the same way, and with older children, facilitate the identification of who are most at risk to be infected by the diseases through which type of activity. Examples are schoolchildren (boys only, or boys and girls, depending on gender norms), who drink water during swimming or may catch schistosomiasis), women and girls who wash clothes while standing in water (schistosomiasis), families without a safe source of drinking water. Use the activity on sheet 3.6, Filtering the flow to refresh earlier learning on the safe water chain.

Learning indicators:

- Children can give at least five ways in which sources for drinking water in their community may be contaminated.
- They know what diseases may result in their community.
- They can name safe(r) and unsafe sources of water in their community.
- They can identify major actors who cause the five ways of contamination and can indicate problem reducing action, including for themselves.
- They can mention what practices they themselves avoid or adopt to reduce water source contamination and which practices they could still change.

Competence:

Safe water chain

Domain: Water supply

Age group: 8-14 years

Subjects: Water use, water-borne diseases, schistosomiasis

3.8 Bill Harzia

Learning goals:

Knowledge:

- The children understand the risks of remaining too long in surface water which contains schistosomes.
- Older children know the source of infection, transmission, symptoms, prevention and treatment of urinary schistosomiasis and other water-borne diseases.

Attitude:

- They want to avoid risky water uses by themselves and by others.

Practical skills:

- They stop swimming or standing in schistosome-infested water while bathing and washing clothes.

Psychosocial life skills:

- They practise skills required for active listening and for giving feedback, critical and creative thinking, cooperation and teamwork, and can understand different practices and underlying factors.

Participatory methods:

Role-play, short skit (little drama)

Materials:

No materials required. Optional: one or two pieces of rope, chalk or some coloured powder to mark the water source; white or grey paper (e.g. toilet paper) for wrapping. The floor should be clean enough for children to crawl on.

Activities:

'Bill Harzia' is a role-play with six to ten volunteers to act in the following parts:

- A boy who herds cattle, chases birds from crops or does other work that is common locally
- A group of boys who go swimming
- A group of girls who go to wash clothes
- One or two children who go to take a bath
- A child acting a snail
- Bill Harzia, the egg that hatches in a snail and becomes a worm. (Bilharzia is another name for the disease schistosomiasis.)

The role-play is set in a village with a pond, an irrigation canal or any other water source with stagnant water in which Bill Harzia can grow into a dangerous worm. The play starts with the snail crawling into the source and enjoying him/herself in the water. After a short while it gets tired and hides itself in a corner of the pond.

A boy arrives herding his goats or cattle. He relieves himself in the water. He complains of pain in his stomach and notices that his urine is slightly red.

While he is urinating, Bill Harzia appears, bent into the shape of an egg. (If paper or cloth is available the worm may wrap itself up.) Bill jumps into the water and starts looking for the snail. When Bill finds the snail, it links up with the snail, still in its shape of an egg. Together they lurk in a corner of the water source. Meanwhile, the herdsboy returns to his animals and continues to suffer from stomach pains.

Other water users now come to the water source. They talk, make fun and pretend to swim, wash themselves and wash some clothes. Suddenly, Bill Harzia stretches out, loosens himself from the snail, throws off his paper or cloth and attacks the other children in the water. They fly, but alas, they are too late. Bill Harzia has already touched them. Soon they are all suffering from stomach ache and complaining about passing blood in their urine.

- After the play, facilitate a discussion asking, for example:
 - What was the herdsboy doing?
 - Why did the other children become ill?
 - How did this happen?
 - What could they have done differently?
- Use the play to facilitate a discussion on gender and poverty. Ask the children to comment upon the ways in which the different groups of children used the water. When the discussion focuses on how some children play while others must work, facilitate a discussion about what this may mean for the children and what can be done.

Application:

- Ask the children to lay out the contours of a water source using the rope, chalk, coloured powder or any other local materials such as small pebbles or sand.
- Choose one child, making sure that socially disadvantaged children get a fair chance to be Bill. Bill stands in the source, the other children divide themselves around the edge.
- When you call out, "In the lake!" (or whatever the local source) all children must jump in.
- When you call, "Out of the lake!", they jump out. While the students are in the water, Bill Harzia touches as many children as s/he can. These children drop out of the game. The game goes on until one child remains, who is the winner.

The game is a good entry for asking refresher questions about what schistosomiasis is, how it is caused, how it spreads and how it can be avoided, recognised, and treated. The drama and game also lend themselves well for a parents' day or for older students to act out with the more junior classes.

Learning indicators:

- The children understand the risks of staying in bilharzia-infested water.
- They can give local names of the disease and explain how it is passed on and how it can be prevented.
- Older children can give the official name and describe the cycle of transmission, symptoms, prevention and treatment.
- They can give at least three examples of risky practices and explain that the longer you stay in the water, the greater the risk that you become infected.
- They can mention at least three ways in which they avoid infection.
- They can explain how the disease is related to gender and poverty.

Competence:

Safe use of surface water



Boys in the classroom (Photo: Mariëlle Snel)

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* indicative

4. Feedback Sheet

I have: (tick or select as appropriate)

Read the document as a reference book

Used it to prepare lesson plans

Used the lesson plans that I made with the document

Used the document otherwise (please specify)

I liked: (tick or select as appropriate)

The themes and subjects of the guide

The participatory and active approach to learning

The use of no- and low-cost materials

The practical suggestions

The attention to social and gender equity

Other (please specify)

I did not like: (please specify)

My experiences when using the document:

I have the following suggestions:

I plan to use the document in future for (please specify):

I work as:

in (school/community/district/state/country)

My particulars:

Last name:

First name(s):

Male or female:

Designation:

Organisation:

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You can send this feedback sheet or any other comments you may have to:

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5. Format for Additional Information Sheets

Domain(s):
Subjects:

Age group(s):

TITLE

Learning goals:

Knowledge:

- Children

Attitude:

- They

Practical skills:

- They

Psychosocial life skills:

- They

Participatory methods:

-

Materials:

-

Activities:

-

Application:

-

Learning indicators:

- Children

Competence:

About IRC

IRC facilitates the sharing, promotion and use of knowledge so that governments, professionals and organisations can better support poor men, women and children in developing countries to obtain water and sanitation services they will use and maintain. It does this by improving the information and knowledge base of the sector and by strengthening sector resource centres in the South.

As a gateway to quality information, the IRC maintains a Documentation Unit and a web site with a weekly news service, and produces publications in English, French, Spanish and Portuguese both in print and electronically. It also offers training and experience-based learning activities, advisory and evaluation services, applied research and learning projects in Asia, Africa and Latin America; and conducts advocacy activities for the sector as a whole. Topics include community management, gender and equity, institutional development, integrated water resources management, school sanitation, and hygiene promotion.

IRC staff work as facilitators in helping people make their own decisions; are equal partners with sector professionals from the South; stimulate dialogue among all parties to create trust and promote change; and create a learning environment to develop better alternatives.

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The Joy of Learning: Participatory lesson plans on hygiene, sanitation, water, health and the environment

This guide is meant for teachers and others who want to design participatory learning activities on hygiene and sanitation as part of, or in addition to, their school curriculum or in work with other children aged 2 to 14. The document is divided into two parts: theory and lesson plans. The lesson plans are organised into three sections: hygiene (including personal and food hygiene), sanitation and water. Each section contains a series of information sheets for planning, implementing and evaluating participatory learning activities on a specific subject. Examples include personal hygiene, the safe transport and handling of water, protecting local water sources, and locally prevailing disease transmission routes.

The guide is characterised by its participatory methodology, the possibility of adjusting each activity to local conditions and cultures, a combination of hygiene and health education with more formal education goals, a focus on socio-psychological life skills such as cooperation and mutual understanding, and the linking of learning activities in schools, homes and communities. Activities require the exclusive use of no- or low-cost materials which are easily available and affordable.

This guide is also electronically available from www.irc.nl.



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