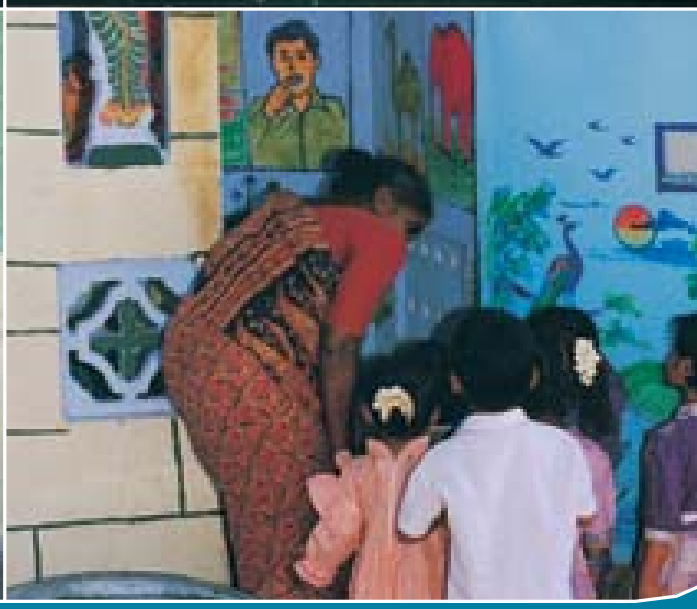
Life Skills-Based Hygiene Education

A guidance document on concepts, development and experiences with life skills-based hygiene education in school sanitation and hygiene education programmes



Life skills-based hygiene education

Postma, Leonie; Getkate, Renate and van Wijk, Christine (2004). *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 programmes.* Delft, The Netherlands, IRC International Water and Sanitation Centre. (Technical Paper Series; no. 42). *144 p.*

ISBN 90-6687-045-1

Layout and printing: Meester en de Jonge, Lochem, The Netherlands
Drawings: Jaap Zomerplaag

To order more copies of this publication, please contact:
IRC International Water and Sanitation Centre
P.O. Box 2869, 2601 CW, Delft, The Netherlands
Tel: +31 (0)15 2192939, Fax: +31 (0)15 2190955, e-mail: publications@irc.nl

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 programmes

Leonie Postma, Renate Getkate and Christine van Wijk
IRC International Water and Sanitation Centre
Delft, The Netherlands
2004

IRC

unicef
United Nations Children's Fund

Table of Contents

List of Figures

List of Tables

List of Boxes

Foreword

Ensuring access to primary education is a major effort undertaken by national governments and international organisations such as UNICEF. This is rightfully so, since education is one of the prerequisites for development. School is not just a place to learn how to read, write and to do sums. It is also a social environment where children can learn about health, how to relate to one another, and how to deal with questions life poses them. This calls for the development of knowledge, attitudes, values and the life skills needed to make appropriate decisions and act upon them.

We have to make sure that schools are safe and healthy environments for children to learn these things. Children need schools where they have access to proper water and sanitation facilities, where they can practise the health-promoting behaviour they learn, and the life skills that help them become healthy citizens, physically, mentally and socially. They also need teachers who have the attitude and skills to go beyond teaching how to read, write and do sums. If we want to address the undesired school drop-out of girls, this becomes even more important. Proper sanitation facilities then need to be built for boys and girls separately. Girls need support in the development of additional mental strengths and skills that help them deal with their often disadvantaged position in society as compared to boys.

Life skills-based hygiene education offers teachers the opportunity to help children obtain life skills by addressing hygiene issues. IRC is pleased to present this guidance document for the planning and development of life skills-based education. It was prepared with financial support from UNICEF. It builds among others on the outcomes of the first life skills-based hygiene education workshop organised in New York and on experiences from a number of countries involved in a multi-year school sanitation and hygiene education programme.

The document provides a good introduction to life skills-based hygiene education. We look forward to receiving suggestions and ideas on how to further improve support to teachers who want to make hygiene education even more meaningful. Please let us know! Any feedback will be gladly received, acknowledged and built upon.

Mr. Paul van Koppen
Director, IRC International Water and Sanitation Centre
Delft, June 2004

Preface

Children are eager to learn and schools are important places of learning for children. Promotion of personal hygiene and environmental sanitation in schools therefore helps children to adopt good habits during their formative childhood. What children learn in school they can and often do pass on in their families and communities, both at the time of learning and during their lives as parents and grandparents. However, the learning potential of many children and adolescents is compromised by conditions and behaviours that undermine the physical and emotional well-being that makes learning possible. In many countries, schools are some of the most crowded places. These conditions facilitate the spreading of micro-organisms that cause diseases. When water, sanitation and hygiene conditions are poor, instead of safeguarding children from the transmission of infectious diseases, school environments are full of health hazards. Hence, education on health and hygiene has to go hand in hand with physically safe and well-kept hygiene facilities to make schools safe places for children's development.

Safe and hygienic schools and effective education require the participation of community members, parents, teachers and above all, children. At all ages, children and adolescents can be engaged actively in learning experiences that enable them to practise basic hygiene and sanitation and advocate it at home and in their community. It is also important to focus on children because they are the parents of the future. Life skills-based hygiene education can help to create effective education and hygienic schools by giving children not only knowledge but also attitudes and skills for coping with life (hence the term life skills). Part of this coping is in water, sanitation and hygiene and includes the learning of practical hygiene skills. Life skills-based hygiene education helps children to change behaviour and so reduce risks and prevent water and sanitation-related diseases. Teaching children through life skills-based hygiene education materials involves the use of interactive and participatory methods with room for information-focused sessions and child-centred sessions.

In collaboration with UNICEF, IRC has cooperated with school sanitation and hygiene education programme teams in six countries (Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam and Zambia) and three states in India to address the above issues. This global school sanitation and hygiene education project is fully embedded in the FRESH framework (Focusing Resources for Effective School Health) supported jointly by WHO, UNICEF, UNESCO and the World Bank. As the FRESH framework includes skills-based education as one of its core elements, all participating teams have developed life skills-based materials and training and are sharing these with the teachers and students. The content of this paper is based on two years of experience and exchange of knowledge and skills in the project. In it, we give an overview of life skills-based education in general and the development of life skills-based hygiene education materials in school sanitation and hygiene education programmes in particular.

The focus of the document is life skills-based sanitation and hygiene education for primary school children. For ease of reading we have not made a distinction between

adolescents (13-14 years) and the other groups and have used the term 'children' to refer to all groups. Although the principles of life skills-based education apply also to nursery schools and some lesson plans for the youngest age group may also be useful for nursery schools, we hold the view that nursery school teachers and children need a programme, materials and a review document that are specifically tailored to their requirements.

The overall reason for writing this document has been to share the experiences of the project with all those involved in developing life skills-based hygiene education and to stimulate comments, additions and corrections, so that we can all learn and further develop the content and materials presented. It is therefore hoped that this start is well received by all people concerned with the education of children. Reactions are warmly invited. We also invite others to share curricula, lesson plans, educational materials and teachers' training materials for further development of the theme. All such contributions will be fully acknowledged in any updated version.

In addition, we have several specific objectives. The first is to introduce and clarify the concepts and methods of life skills-based hygiene education. Secondly, we hope to provide some guidance for the development of this type of hygiene education based on the activities of the project. A third objective is to present a general overview of the content that can be dealt with in life skills-based hygiene education. A set of lesson plans is presented as an example of how content and teaching methodologies can be combined to achieve all the objectives of a lesson. Throughout the document, the reader will find examples of work in progress in various UNICEF programmes, in order to facilitate exchange of experience and future cooperation among the country programmes.

The main envisaged users are government policy makers and decision makers and members of international organisations and non-governmental institutions involved in school sanitation and hygiene education programmes. In more general terms, the document is meant for everyone interested in initiating and strengthening life skills-based hygiene education as their approach to hygiene education in and around schools. The paper is divided into three sections:

Section 1 gives a general introduction to life skills-based hygiene education.
Section 2 gives a general overview of the content of life skills-based hygiene education.
Section 3 provides a set of examples of lesson plans for life skills-based hygiene education.

This paper could not have been written without the enthusiasm and work of many of our colleagues. Here, we want to thank first all the officers from the UNICEF country offices and ministries and our colleagues from the partner organisations involved in the project. Together we shared insights, exchanged and developed materials, worked for achievements and identified concerns. Thanks also go to the participants of the e-mail conference on school sanitation and hygiene education, organised by IRC and UNICEF in 2002. We express special thanks to Lizette Burgers and Amaya Gillespie from UNICEF New York for their constructive and challenging comments to the draft document.

Marielle Snel and Kathy Shordt gave valuable contributions while developing an overview for the content of life skills-based hygiene education. We thank Sascha de Graaf for her assistance in the production process. All the drawings were made by Jaap Zomerplaag.

Leonie Postma, Renate Getkate and Christine van Wijk

Reactions to this document and contributions on life skills-based school sanitation and hygiene education can be sent to:

IRC International Water and Sanitation Centre
P.O. Box 2869
2601 CW Delft
The Netherlands
e-mail: portal@irc.nl
web site: www.irc.nl/sshe

Section 1 - Introduction to life skills-based hygiene education

1. Life skills-based education within school sanitation and hygiene education programmes

School sanitation and hygiene education

School sanitation and hygiene education focuses on both the provision of hygiene facilities (latrines, water supply, hand washing facilities, solid waste disposal, etc.) and the development of necessary knowledge, attitudes, values and (life) skills that promote better sanitation and hygiene practices in families, schools and communities. In school settings, school sanitation and hygiene education makes safe water and sanitation facilities and hygiene part of the school curriculum.
Most school sanitation and hygiene education programmes focus on the following objectives:

- Creating a healthy and safe learning environment
- Helping children to develop knowledge, attitudes and life skills - that is, skills to cope with life - that support the adoption of good hygiene behaviours and better health
- Reaching out to families and communities to stimulate safe hygiene and sanitation practices by all community members

Two important acronyms

Readers are encouraged to commit to memory two acronyms that they will find repeated regularly throughout this publication. They are:

- SSHE = School Sanitation and Hygiene Education
  Many readers will be familiar with this term, which has been used in advocacy and investment programmes by UNICEF and other agencies for a number of years. It is intended to focus attention on the vital need for safe water and sanitation facilities for boys and girls in all schools, and the incorporation of hygiene education in school curricula.
- LSBHE = Life Skills-Based Hygiene Education
  This is a more recent term, and the subject of this publication. It seeks to combine the essential teaching of hygiene principles with children's developing experience of life at home, at school and in the community. Through participatory learning, the children acquire knowledge, develop positive attitudes and, critically, gain skills that enable them to improve their own lives and those of their families and communities.

So, look at the terms again, so that you can assimilate them each time they appear.

Safe water and sanitation are essential for a healthy learning environment. Unfortunately having access to safe water and sanitation facilities is not enough. Appropriate hygiene behaviour by all users (children and staff) is essential to derive the full health benefits from the facilities. Also active management is required to keep the facilities operational and hygienic. A school may have latrines, but when they are not properly maintained, they cannot or will not be used.

SSHE in different environments

School sanitation and hygiene education programmes concentrate on the school environment, the water and sanitation facilities in this environment and hygiene education in the formal or non-formal curriculum. School sanitation and hygiene education deals with the total package of sanitary conditions and facilities available in and around the school compound, promoting hygienic conditions at the school and fostering practices of school staff and children that help to prevent water and sanitation-related diseases. School sanitation and hygiene education also promotes the linkage of improvements in school with improvements in the children's homes and community.

The 'FRESH' initiative

The introduction of life skills-based hygiene education in school sanitation and hygiene education programmes implemented by UNICEF and partners is part of UNICEF'S commitment to the implementation of the FRESH framework. FRESH stands for Focusing Resources for Effective School Health. The initiative is supported by cooperating United Nation agencies such as WHO, UNICEF, UNESCO and the World Bank, donor agencies such as USAID and DFID, international organisations such as Education International and the private sector. FRESH is a framework for developing an effective health component in education plans, and can be linked to the broader effort to achieve more child-friendly schools.

FRESH advocates that the following four core components are implemented as one package in all schools across the world:

1. Introduction of school health policies from national to community level
2. Establishment, proper functioning and upkeep of safe drinking water and sanitation facilities within school premises, as a first step towards a safe and healthy environment
3. Introduction of life skills-based health and hygiene education
4. Establishment and proper functioning of health and nutrition services in schools

These components should be supported and implemented through effective partnerships among students, families, teachers, health workers and communities; and among education, health and other relevant sectors. (UNESCO; UNICEF; WHO and World Bank, 2000)

The FRESH initiative

Better hygiene education through a life skills-based education approach

What is life skills-based education?

Life skills-based education focuses on the development of knowledge, attitudes and skills that support people/children in taking a greater responsibility for their own lives. It helps children to acquire and practise good health behaviours along with the underlying knowledge and positive attitudes. It also helps children to develop and strengthen their general interpersonal and psycho-social capabilities or life skills. Life skills are abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and the challenges of everyday life (WHO 2000). Examples of interpersonal and psycho-social capabilities (or life skills) are assertion, negotiation, empathy building and stress-coping skills.

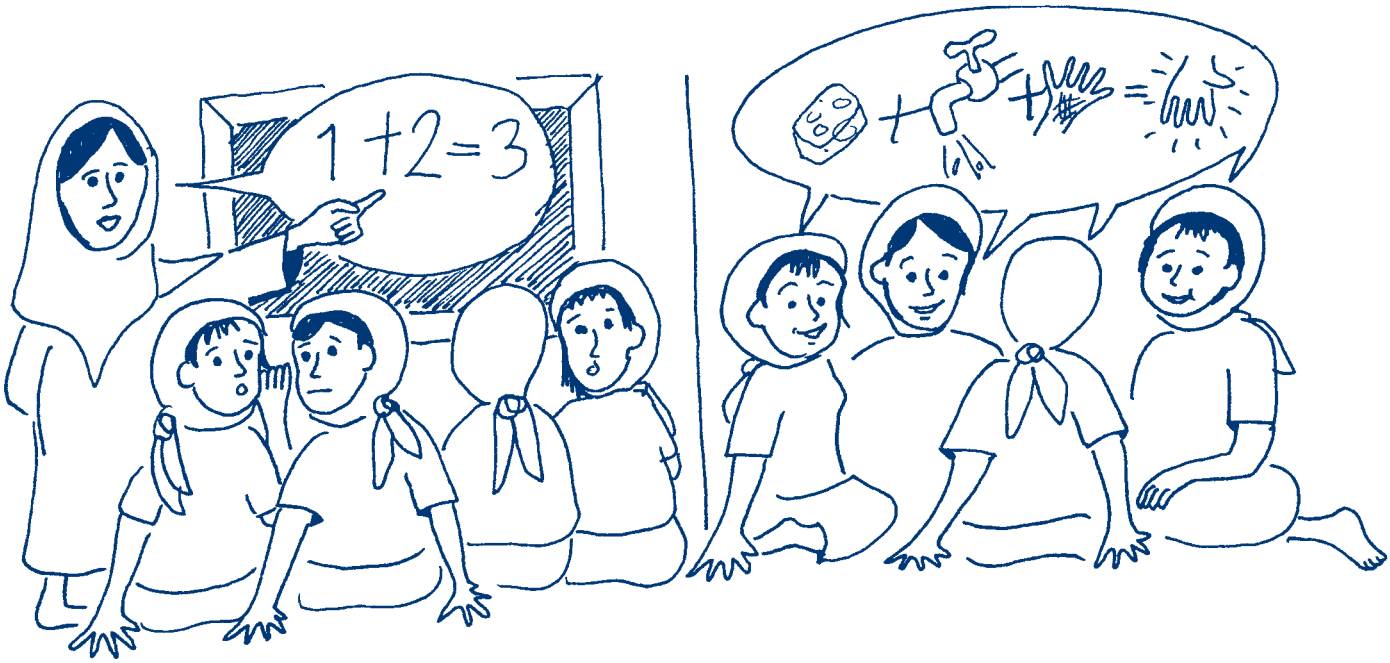
Life skills-based education addresses real-life applications of knowledge, attitudes and skills, and makes use of participatory and interactive teaching and learning methods. It can be applied to many issues and aspects of life such as peace, human rights, or the environment. A range of different terms are used to describe the concept of life skills-based education at the country level, such as skills-based health education when the focus is health issues; peace education when the focus is violence prevention or conflict management, or even civic education depending on the objectives of the learning area. The scope of this document is limited to life skills-based education that focuses on the promotion of good hygiene behaviours associated with the prevention of water and sanitation-related infectious diseases.

What is distinct about life skills-based education?

Traditional education methods tend to emphasise academic knowledge but do not sufficiently apply curriculum content to real-life situations. They seldom deal with the kind of practical knowledge, attitudes and skills that children need in their own environment, while they are young and when they are growing up. Traditional methods, such as one-way teacher or invited expert lectures, overlook the need for interaction to develop and extend existing knowledge, attitudes and skills of the learners.

Current insights show that introduction of life skills-based education in schools next to traditional education has many advantages over teaching according to traditional methods alone. Life skills-based education gives room for children to develop knowledge, attitudes and skills together that they can use in daily life. It also gives the opportunity to the children to clarify uncertainties, to try out new knowledge and skills, to be creative and to learn from each other.

The role of the teacher is different from that in traditional education. In life skills-based education children do not learn only from the teacher, but also from their fellow students, for example through playing games and working in small groups. Use of participatory and interactive methods, which address skills, values and attitudes as well as information transfer, is not only useful for children in an academic sense, but also helps them to have better lives. More effective and relevant learning outcomes are likely to be the result. This does not mean that traditional education methods are useless, but rather that when the range of methods is expanded, benefits result for both teachers and students. Children still need to acquire knowledge, but to be more effective this can be extended to develop skills and attitudes as well.



Traditional education and life skills-based education

Life skills-based education is characterised by the following elements:
- Does the programme address relevant health and social issues?
- Are there objectives to influence behaviour?
- Is there a mix of knowledge, attitudes, and skills?
- Are participatory teaching and learning methods used?
- Is the programme participant-centred and gender-sensitive?

Table 1 summarises the differences between traditional education and life skills-based education.

Table 1: Differences between traditional education and the life skills-approach

Traditional education method	Life skills-based education
Teacher-centred	Child-centred
Emphasis on reproducing and learning by heart and academic knowledge	Emphasis on the application of the content and learning of skills and attitudes
The teacher uses one-way teaching, during which the teacher speaks and the students listen	Students learn from both the teacher and each other Sitting arrangement is flexible and the
Children sit in rows one behind another all the time and the teacher sits facing the class	teacher moves around the class, working with an individual a group or the whole class depending on the activity
Learning is mostly through written text (textbooks and taking notes)	Besides written text, teachers make use of participatory and interactive activities
The lesson content is not adjusted to local conditions	The content of the lesson is adapted to real-life situations

How does life skills-based education fit into school sanitation and hygiene education?

As we saw in the first paragraph, school sanitation and hygiene education focuses on both the provision of hygiene facilities and the development of necessary knowledge, attitudes, values and (life) skills. Together they promote better sanitation and hygiene practices in families, schools, and communities.

Life skills-based hygiene education combines all the participatory learning experiences that aim to develop the knowledge, attitudes and especially skills needed to take positive actions to create or maintain hygienic conditions. The conditions may be at the school, at home or in communities. Life skills-based hygiene education also helps to foster good hygiene behaviours and practices by school staff, children and all community members. These knowledge, attitudes, skills and practices all help to prevent water and sanitation- related diseases and improve learning and well-being in general.

Human behaviour is an important factor in the transmission of water and sanitation-related diseases. Good hygiene behaviours and practices can broadly be defined as a

wide range of actions that promote health, from eating a healthy diet to washing hands after defecation or to proper operation and maintenance of latrines (Boot 1993). Box 1 has definitions of 'hygiene' and 'human behaviour'.

New hygiene and sanitation skills and attitudes can be learned during creative and interactive classroom lessons, and through assignments carried out in the children's homes, neighbourhoods and communities. Further knowledge, attitudes and skills development, such as maintaining and cleaning the facilities, can be learned during the design and construction of hygiene facilities. These can be further enhanced during the subsequent upkeep and operation of the new facilities.

Box 1: Definitions of hygiene and human behaviour

Human behaviour: the way people act in general, especially in relation to the situation they are in or the people they are with.
Hygiene: the practice of keeping oneself and one's surroundings clean, especially in order to prevent illnesses or the spread of diseases.
Source: Boot, 1993

Life skills-based hygiene education offers an effective approach to equipping children with the knowledge, attitudes and skills that they need to help them avoid risk-taking behaviours and adopt healthier life styles. Central to effective life skills-based hygiene education are:

- development of knowledge most relevant to the elements of hygiene education being addressed;
- development of specific psychosocial (or life) skills – such as assertion, negotiation, empathy building – most relevant to the local challenges to health, hygiene, and well-being;
- development of positive attitudes and motivation to use the skills and knowledge to promote health and hygiene;
- development of necessary hands-on skills such as proper hand washing and use of latrines, as well as skills in proper operation and maintenance of facilities and, where relevant, building skills for construction of facilities;
- opportunities to model and practise the knowledge, attitudes and skills within the school context and local environment.

As a result of effective life skills-based hygiene education, children will have the skills to critically analyse local conditions and find solutions that fit local means and culture. They will also have the relevant knowledge to guide their actions. If this is supported by positive attitudes developed during life skills-based education, children will be more likely to adopt and sustain a healthy life style during their days in school and during the rest of their lives. However, life skills-based hygiene education alone is unlikely to be sufficient to overcome all obstacles in an unwelcoming environment. To maximise outcomes, life skills-based hygiene education should be combined with, and supported by, other reinforcing strategies such as consistent policies that are resourced and enforced, effective training and support for personnel, and provision of clean water.

In summary the focus of life skills-based hygiene education in the context of school sanitation and hygiene education is on developing better knowledge, attitudes, values and practices that are specific to hygiene, water and sanitation-related diseases. In addition to specific hygiene-related knowledge, attitudes and practices, over time, students also develop a broad foundation of attitudes and skills that can apply to other issues and situations, such as:

- attitudes of respect for the opposite sex;
- pride in their own culture;
- openness to and respect for habits of other groups and nations; and
- skills for cooperating constructively with others or for dealing with sensitive subjects.

What are the elements of life skills-based hygiene education?

The starting point for a skills-based hygiene education programme is clear objectives with related learning outcomes. From those, **content** and **methods** can be selected that will have the greatest impact on reducing local hygiene risks and promoting conditions and practices that will help to prevent water and sanitation-related diseases.

The **content** of life skills-based hygiene education combines knowledge, attitudes and skills for the promotion of positive conditions and practices with risk reduction. It should enable a person to apply the knowledge and develop attitudes and skills to make positive decisions and take actions to promote and protect both their own health and that of others[1].

Knowledge relates to a range of information and understanding. Teaching knowledge may include a combination of facts – for example, how diarrhoea is transmitted – and some understanding of how facts relate to each other, for example how certain practices such as open defecation increase the risks of diarrhoea transmission.

Attitudes include personal biases, preferences and subjective assessments such as likes or dislikes, good or bad, important or not important, worth caring about or not worth caring about. Attitudes predispose people to act or respond in a predictable manner. For example, respecting one's body and believing that it is important to care for it are important to preserving health and functioning well, or to feeling the responsibility for personal, family and community hygiene and having the confidence to change unhygienic habits (UNICEF et al. 2003). An example of a lesson that mainly focuses on the development of values and attitudes can be found in box 2.

[1] The text of this paragraph has mainly been adapted from Greene, W.H. and Simons-Morton, B.G., 1984 and from UNICEF, WGHO, World Bank, UNFPA, UNESCO, Development Centre, Education International, Partnership for Child Development, 2003

Box 2: Example of a lesson that mainly focuses on learning values and attitudes

Shield exercise

This exercise practises the identification of values. The children are asked to make a shield and divide this into five parts (2x2 and 1 at the bottom, see figure 1).

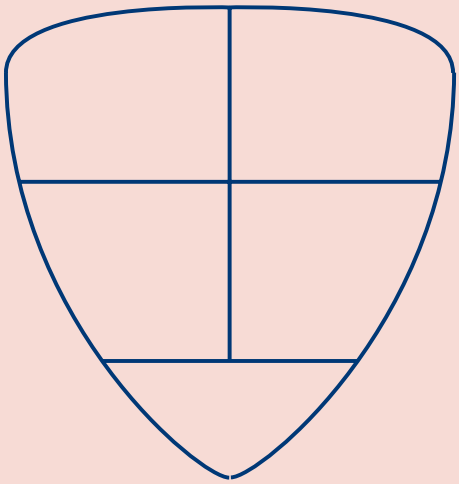


Figure 1: Shield

The children can then be asked to fill each of the parts with the following:

1. My least favourite place at school
2. My favourite place in school
3. The hygiene practice which I think is most important at school
4. The hygiene practice which I would like to promote at home
5. The way I would like to be remembered

After the children have filled in the shield, the results are discussed in small groups. The main focus of the discussion should be the explanations why children find a certain hygiene practice more important than other practices, why they would like to promote certain practices and how they would like to do this.

As mentioned earlier, life skills are various interpersonal and psycho-social skills such as assertion, negotiation, empathy building and coping skills. In particular, they are a group of psychosocial competencies and interpersonal skills that help people to make informed decisions, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathise with others, and cope with and manage their lives in a healthy and productive manner. Table 2 gives an overview of the main life skills that may be included in a life skills-based hygiene education curriculum. Life skills may be directed toward personal actions or actions toward others, as well as to actions to change the surrounding environment to make it conducive to health (UNICEF et al., 2003).

Table 2: Life skills for skills-based hygiene education

Communication and Interpersonal Skills	Decision-Making and Critical Thinking Skills	Coping and Self-Management Skills
Interpersonal Communication Skills • verbal/nonverbal communication • active listening • expressing feelings; giving feedback (without blaming) and receiving feedback **Negotiation/Refusal Skills** • negotiation and conflict management • assertiveness skills • skills to be able to refuse **Empathy Building** • ability to listen, understand another's needs and circumstances, and express that understanding **Cooperation and Teamwork** • expressing respect for others' contributions and different styles • assessing one's own abilities and contributing to the group **Advocacy Skills** • influencing skills and persuasion • networking and motivation skills	**Decision-Making/Problem-solving Skills** • information-gathering skills • evaluating future consequences of present actions for self and others • determining alternative solutions to problems • analysing skills regarding the influence of values and of attitudes about self and others on motivation **Critical Thinking Skills** • analysing peer and media influences • analysing attitudes, values, social norms, beliefs and factors affecting them • identifying relevant information and sources of information	**Skills for Increasing Personal Confidence and Abilities to Assume Control, Take Responsibility, Make a Difference, or Bring About Change** • building self-esteem/confidence • creating self-awareness skills, including awareness of rights, influences, values, attitudes, rights, strengths and weaknesses • setting goals • self-evaluation/self-assessment/self-monitoring skills **Skills for Managing Feelings** • managing anger • dealing with grief and anxiety • coping with loss, abuse, and trauma **Skills for Managing Stress** • time management • positive thinking • relaxation techniques

Source: UNICEF, WHO, World Bank, UNFPA, UNESCO, Education Development Centre, Education International, Partnership for Child Development, 2003

Teaching and learning methods in life skills-based education are mainly interactive and participatory. They give students the opportunity to explore and acquire hygiene-promoting knowledge, attitudes and values. They also allow them to practise the skills they need to avoid risky and unhealthy situations and adopt and sustain healthier life styles. In addition, the skills that are developed may be applicable in situations that go beyond practices specifically related to the prevention of hygiene, water and sanitation-related diseases. Teaching and learning methods for any particular lesson are determined by the learning objectives and the desired behavioural outcomes.

Knowledge of academic facts, such as the causes of diseases and the names of bacteria and viruses, is important to fulfil the standards that may be set in the school curriculum. However, these facts are more valuable to students when they are taught in ways that make them relevant to their real lives; when they are accompanied by opportunities to practise skills that allow the students to apply their knowledge; and when they are related to attitudes and values that allow them to make sense of these inputs for their everyday lives. Chapter 6 describes in more detail, the kinds of teaching and learning methods that can be used in life skills-based hygiene education. Box 3 is an example based on an activity originally developed in Nepal by the Ministry of Education. The activity can be used to monitor the cleanliness of the children when they come to school. It also enables the children to develop their skills to critique others in respectful, supportive and constructive ways, to deal with criticism, and to make decisions and practise hygiene skills.

Box 3: Example of an activity including knowledge, attitudes and skills related to personal hygiene

Train exercise

This exercise was developed by educationalists in the Ministry of Education, Nepal. It can be used to monitor the cleanliness of 6-9-year-old children in the morning when they are entering the classroom. It gives children the skills to critique others with respect, to deal with criticism, to make decisions and to practise hygiene skills.

The teacher asks five children to become stationmasters. The teacher will be the stationmaster of the final station. Each stationmaster checks one part of the body (nose, ears, hair, etc.) and at the final station the teacher makes the final check, checking all the body parts that have been checked at the previous stations.
If one of the children has, for example, dirty hands, the child will be asked to clean these and then pass the stationmaster once again before continuing on its way.
The teacher will need to make sure that the materials to clean hands, ears, nose, etc. are available when doing the exercise.

At the end of the activity, the teacher can ask the students to discuss and explain the consequences of not having each station clean.

Possible stations are:
1. Nose station
2. Nails station
3. Hands station
4. Hair station
5. Ear station
6. Final check station

Of course one can add or delete stations according to what is deemed acceptable and able to be checked without risk to one's own health.

Other life skills to practise with the exercise are empathy (being able to place oneself in the position of the other, or 'step in that person's shoes'), respect and giving and receiving feedback. It is crucial that teachers do not blame, ridicule or otherwise stigmatise children with lesser hygiene and that they prevent other children from doing so. Poorer hygiene is often also related to poverty, lacking the means for hygiene, and the nature of the children's work, e.g. in the fields before going to school. Addressing such aspects with understanding, tact and kindness, without embarrassing the children concerned, demands sensitivity and skills in handling delicate issues.

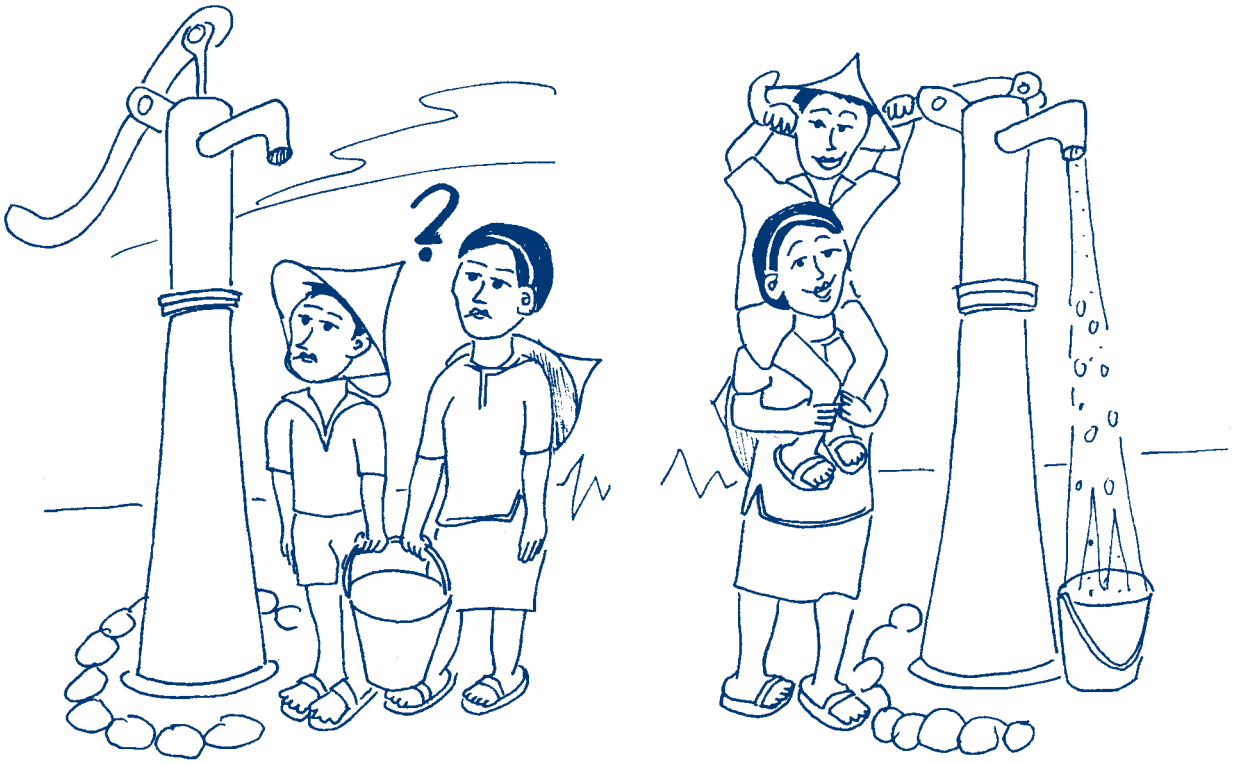
2. Life skills-based education and how children learn

Development of the child in the primary years

Teachers often see a gap between what they teach and what the children actually learn. For example, a teacher can give lessons about the safe storage of food. Children often only remember that food can go bad when not stored safely, but do not remember the proper ways to store food.

To reduce this gap as much as possible and to enhance children's learning, it is important to understand how children learn and when learning occurs, and to have insight into development in the different age stages. The next section gives details about the stages of child development. Learning occurs when the child is able to give a relevant answer to a question that s/he could not answer before, or feels more motivated or willing to act in healthy ways, and also when the child is able to do things such as storing food correctly.

Every child is an individual with different rates and ways of learning, different interests, experiences and abilities. Despite these individual differences a pattern of development and characteristics of learning exist, which are common to every child in a specific age range. The age range can be divided into two main stages of development, 4-7 years and 8-11 years.



Working together to achieve results

Support from adults contributes to the physical, cognitive and social-emotional development of children, because it motivates them to carry out their plans. Adults can

encourage children to apply their knowledge, to conquer obstacles and to try out new things, which lead to new insights. By doing so, children learn through experience. There are five important elements for adults to support and help children learn:

1. Share the right to speak
2. Emphasise the abilities of children
3. Create sincere relations with children
4. Support the play of children
5. Approach conflicts in a problem solving way.

When the activities include several or all elements, mutual reinforcement can be achieved. Together this will enhance the development of trust, independence, and a spirit of enterprise, compassion and self-confidence in the child.

Besides the active support from adults and peer interactions, there are environmental circumstances in which children can learn better. For example, a child learns better when materials are available that can be used to investigate and play. These local materials do not need to be sophisticated. Slates and blackboards, paper, water, clean sand, calabashes, sticks, leaves, seeds, twigs and cans are all materials that can be used creatively and effectively for life skills-based hygiene education. An example of the use of local materials in life skills-based hygiene education can be found in box 4.

Box 4: Use of local materials in life skills-based hygiene education

A week before the lesson the teacher can ask the children to collect local materials such as small stones, leaves, twigs, clean pits of fruits, flowers, grasses, or materials from the household such as empty cans, empty toilet rolls, etc., which are safe to use for making an artistic creation to represent how the children would like the school yard to look. During the lesson the children can use each other's materials. At the end of the lesson, the children can present their work in small groups and discuss how they can contribute to the improvement of their courtyard.

Linkages with the stages of child development

The development of children can be influenced by a range of factors including the home and community environment, the status of women and girls in society, physical activity/work that affects sleep and rest patterns, access to adequate diet and clean water supply, and poverty. These and other local factors are important to consider. It is also possible to map the patterns of development and characteristics that are common for most children within specific age ranges. These can be divided into three categories[2]:

- Physical
- Cognitive
- Social-emotional

[2] The text of this paragraph is adapted from: National Council of Educational Research and Traning, 1998.

Physical development

Children in the age range 4-7 cannot sit still for more than 15 minutes. They need a variety of activities involving frequent changes of body position such as indoor/outdoor activities. The child needs opportunities to run, jump, balance, etc. Painting, colouring and drawing are good activities, not only to develop physical abilities such as eye-hand coordination, but also to give openings to the development of intellectual abilities. For example, children can be asked to make drawings of different water sources and later to indicate which ones are suitable and safe for different purposes such as drinking, swimming, watering cattle, washing clothes, etc.

Children in the age range 8-11 can perform movements involving better body control, such as running, jumping, skipping, etc. In hygiene classes, children can play pantomime games – for example to depict different hygiene behaviours such as cleaning water sources or latrines or the correct feeding of babies, or take part in a race in which they must also properly wash hands at the turning point.

Cognitive development

Children of 4-7 have a short attention span and can only concentrate on single elements of an object at a time. Therefore, concepts should be introduced only one at a time. The child also needs a lot of opportunities to speak with others and listen to good language. If a story is told, the child will keep on interrupting with unrelated comments and will share irrelevant experiences. Therefore, if in hygiene class the teacher tells a story, for example, on the effects of eating raw food, the story has to be simple, short and fun, and should allow children to comment and interpret at some point. Examples of questions to interpret: What do you think will happen next? Why do you think so? What would you do next? What could have been done differently in the story?

Children of 8-11 develop the capacity to see other's point of view. This development helps the child analyse, understand and see logical relationships. They also are very curious and need a stimulating environment to nurture their curiosity. This curiosity can be used in hygiene class. For example, the children can be asked to work in groups and teams for a range of group work related to water/sanitation/health, such as discussions, role-plays, inventories and observations. During this work, the children will be able to solve problems and provide critical analysis of the relationship between wealth, hygiene and public health of different groups of people, or design the school toilet facilities or school garden.

Social-emotional development

Children of 4-7 need physical reassurance by appropriate patting and touching and giving the child a sense of security and confidence. While initially children tend to play alone or in pairs, gradually they become more interested in playing in small groups. Boys and girls at this stage generally play together easily. In hygiene class the children

Washing hands together

can, for example, sing songs on how to clean themselves in the morning, or dispose of waste/garbage properly, during which they act out the different behaviours and after which they are praised on how they have done it.

Children of 8-11 get embarrassed by physical displays of feelings and are sensitive to gender differences. Boys want to play with boys and girls with girls. In hygiene education, the teacher has to take these feelings into account, for example, when working in groups, being careful not to reinforce unhelpful or antisocial gender differences and stereotypes, but instead promoting cooperation and resilience.

Table 3 gives a general overview of the pattern of physical, cognitive and social-emotional development in the different age groups. It also gives a number of examples of how these development patterns can be taken into account when designing life skills-based hygiene education lesson plans. The overview is not complete in every aspect, but includes elements of developments relevant to life skills-based hygiene education.

The ages should be seen as approximate, as different age groups can overlap in their learning development. For example, a 7-year-old child can have a development pattern that theoretically falls under the development of a 9-year-old and a 9-year-old can show the development pattern of a 7-year-old.

Table 3: Patterns of development of children

Physical development	
4-7 years	8-11 years
Muscles and bones are still developing. The child is very active and energetic, thus needs a variety of activities involving frequent change of body position, such as listening to a short story or drawing pictures about hygiene alternated with singing and dancing or assisting the teachers with the cleaning of the school courtyard. Some may need rest at school, depending on demands at home or elsewhere (such as domestic chores, collecting water).	The child is still very energetic but can also stay in the same position for a longer time now. This will mean that the child can be asked to write its own story about the hygiene conditions in its community but can also help teach the smaller children how to use the latrines correctly.
The child's gross movements and the small motor activity movements are still developing. The child therefore needs opportunities for activities to develop larger muscles, such as running and jumping and activities to develop eye and hand coordination, such as drawing, painting and using clay.	Control over the muscles improves rapidly. The child becomes more skilful in writing, drawing, etc., as well as dancing and other movements. Because children in this stage love to show off their new skills, the children can be involved in pantomime or asked to perform role-plays during which they can act out certain hygiene behaviours. Problem-solving and logic skills are developing in complexity.

Cognitive development	
4-7 years	8-11 years
The typical attention span lasts from 7-15 minutes. However, this will depend on nutritional status, sleep and rest, and physical demands on the child, as well as the interest level of the child in the	The attention span becomes longer and the child can also concentrate for a longer time. In hygiene class the teacher can make use, for example, of the pocket-voting methodology[3] and

[3] Pocket voting can be used to investigate e.g. where the children defecate: attach an envelope to each drawing that represents a different place where children can defecate (bushes, river, different latrines, etc.). Give each child a little piece of paper. In order to collect gender-differentiated information, girls and boys should be given different colours. Ask the children to indicate where they go for defecation. The children can vote by putting their piece of paper in the envelope attached to the drawing representing the place where they go for defecation. The results can be used to hold discussions.

particular activity. The teacher can involve the children in a variety of short activities during the hygiene class, such as asking all children to draw a picture of their households, then asking those with babies at home to raise their hands. This can be followed by telling a story about how to care for babies in a hygienic way.	investigate where the children defecate during school and at home. This can then be followed by a discussion on the dangers of defecating in the open and the reasons why certain families don't have latrines and why others have them.
The child can only concentrate on single elements, so concepts should be introduced only one at a time for children to understand. In this stage the children will be able to learn to identify whether a specific hygiene behaviour is healthy or not.	The child is able to handle more than one concept at a time and can classify objects in different ways. In this stage an activity such as three-pile sorting can be introduced. For this, the children are given a set of pictures of different hygiene behaviours. They discuss the issues and divide the pictures into three piles: mostly healthy, in between, mostly not healthy; or risky, in between, not risky.
The child can only see things from his/her point of view and not from others' points of view, as they have only limited knowledge and exposure to other people and their experiences. During hygiene lessons the children can discuss their experiences of being ill and so learn to recognise the symptoms of being ill and how it feels, and begin to understand the consequences of healthy behaviour and environment.	The child is able to move from personal experiences to general principles and develops the ability to see others' points of view and learns how to respond appropriately. During hygiene lessons the children could assess differential hygiene conditions in the community and assist in improving sanitation.
At this stage the child has a tendency to explore her or his surroundings and discover properties, patterns and relations. In hygiene classes the children can explore the environmental hygiene conditions and practices in their own school, home and neighbourhood and try to discover their relationships with health and hygiene'.	The child can plan and organise activities leading to specific outcomes along with other children. During hygiene classes the children will be willing to cooperate with others, e.g. to undertake group action to reduce hygiene-related risks in the community, such as writing and performing simple plays in which some pros and cons of different hygiene practices are discussed.
The child loves to play, and enjoys imaginative play imitating others like parents, teachers or doctors. During hygiene les-sons, storytelling and plays can be used to understand factors affecting hygiene behaviours.	The child loves to play, but the games become more organised and structured, leading to a planned outcome. During hygiene lessons the teacher can make use of board games or role-plays.

Social-emotional	
4-7 years	8-11 years
The child likes playing with simple toys in the immediate environment. During hygiene classes the children can be asked to bring safe and clean local objects such as clean sand, calabashes, sticks, leaves, seeds, twigs and cans that could be used to make, e.g. puppets, buildings, or pretend food items.	The child likes playing with more complex toys that can be dismantled and reconstructed, and likes to make his/her own toys. During hygiene classes the children can use local materials to make their own toys and meanwhile also learn about the concept of recycling.
The child enjoys hearing the same story over and over again. During hygiene classes this can be used to reinforce messages by asking the children to sing the same song about good hygiene practices every morning.	Children enjoy variety and stories with adventure, and like to write their own stories. During hygiene classes the teacher could tell stories during which the children may be asked to predict or change the endings, or a group of children might organise a campaign for improving the hygiene conditions in their community and tell about the difficulties they faced while working with the community.
The child responds immediately to love, praise or criticism. In this stage it is very important that the teachers and older children assist the children in a positive way about how to perform good hygiene behaviours.	The child is more conscious of reacting and responding in a socially desirable way. The child will still need to be encouraged and look up to the teachers as their role models. The children at this stage could assist the teachers in mentoring the younger children on how to perform good hygiene behaviours and supervise them during breaks.

The life skills learning environment by age

Development of effective life skills-based hygiene education, materials and lessons plans should take into account not only the children's development pattern, but also their interest and attitudes in their surrounding environment at different ages. In the context of life skills-based hygiene education, the scope of interest and action of the child evolves from a mere focus on the child's own body through a focus on the household and school to activities and projects that relate to the community. Table 4 gives some examples of hygiene (life) skills in the context of the increase in the scope of interest and action of the child in its surrounding environment.

Table 4: Examples of hygiene (life) skills by age group and the scope of interest of the child in its surrounding environment

Health/Hygiene Life Skills and Attitudes		
Age 4-6-years-olds	7-9-year-olds	10-12-year-olds
Discover own body and body parts such as arms, legs, nose, ears, etc., and learn how and when to clean these correctly	Are able to clean themselves in the correct way and are willing to demonstrate to assist their siblings and younger students with washing and cleaning	Take care of younger siblings and prevent them from becoming ill from easily preventable water, sanitation and hygiene-related diseases
Discuss the experience of being ill e.g. diarrhoea, fever, inflamed eyes or skin, etc.	Understand the link between unhygienic behaviour and the transmission of diseases, and avoid these risky behaviours to prevent falling ill from water and sanitation-related diseases, e.g. diarrhoea, fever, inflamed eyes or skin, etc.	Can diagnose the risk they and others are likely to suffer from one of the main water, sanitation and hygiene-related diseases prevalent in their community, and know how to use and apply treatments such as ORT
Learn to use the toilets and water sources correctly (regular times, hygienic manner), through encouragement and praise, not criticism	Practise scheduled simple cleaning skills at home and at school	Are able to clean, maintain and operate the toilets together with the teachers, parents or others responsible
Learn the difference between girls and boys; this is a more sensitive issue for adults than for children, for whom the topic is very natural	Respect different needs of boys and girls, for example the need for privacy when using a latrine or washing themselves, and share simple cleaning tasks equally between boys and girls	Can express themselves on sensitive subjects and issues, e.g. personal hygiene of private parts, safety of using latrines or other defecation areas, myths and beliefs about menstruation

The suitability of life skills-based education for handicapped children

Life skills-based education means that children move, observe and analyse. Is it also suitable for physically or mentally handicapped children? For a number of reasons, it is suitable if teachers and children want it:

- The activities make use of different senses: hearing, sight, touch, smell. It is thus possible to use exercises that children with a visual or hearing disability can also actively participate in.
- For intellectually disabled children, experiencing personal, school, domestic or community hygiene conditions and practices through movements, plays, drawing, games, site observations, model making, etc. makes the subjects easier to grasp and actively participate in.
- It is an intrinsic part of life skills-based education philosophy and learning that children develop respect and understanding for each other and help each other in the learning activities.

Much depends, however, on the class size and broader conditions of the learning environment, the awareness and creativity of the teachers, and how well their training develops their sensitivity and skills.

Seven golden rules on learning in primary school

As well as knowing the different development needs and learning environments of children at different ages, it is important to know how children actually learn. If teachers understand how children learn, the gap between what is taught by the teacher and what is actually learned by the children will be reduced and the teaching/learning becomes more effective. Table 5 contains seven principles that help children to learn better.

Using your senses

Table 5: Seven golden rules on learning of children

1. Children are not empty vessels. Children come to school with previous experiences. The lessons planned must take this into account. Children will learn better if the new information is based on previous knowledge and insights.
2. Children want to learn. Children ask questions all the time. A teacher can use this curiosity (also known as a 'teachable moment') to help children learn without presenting the learning activity as being a lesson. For example, a child is confronting another child about having dirty hands. The teacher can use this conversation between the children to talk about the meaning of having clean hands and when hands should be washed, without giving a 'lesson'. At this moment, children will be open to the information because they are confronted with it by own questions or actions. They learn within the framework of their own activity.
3. Children learn best when using a range of senses. When the learning activities involve using more than one sense (smell, touch, taste, etc.) children learn better. For example, if a lesson on how to prepare oral rehydration therapy (ORT) involves hearing about it, doing it and tasting it, the child will learn it more easily and more quickly than when the teacher only lectures about the preparation of ORT.
4. Children like to copy. Another fun way for children to learn easily is imitation. It is a way to pick up good or bad habits. To do so, they need good role models at school and at home. They also learn through repetition. Remember, though, that children do not like monotonous repetition, so revisiting competencies should vary. For example, the children can learn a song that describes the story of water, from falling as rain on the ground until its use, during which they act out the different stages and different sources of water available in their community and the purposes for which they are used.
5. Children need to learn what is relevant to them. Classroom learning needs to be related to the child's environment, because learning is not limited to the classroom or the school. Children learn not only from the teacher, but also from interacting with other children, adults and their parents. Learning activities should therefore involve activities such as group discussions, pair work and peer learning, and be related to the child's physical environment. During the hygiene lessons the children can go into the schoolyard or community and carry out interviews or surveys on the water, sanitation and hygiene factors in the community that put their health at risk.
6. Children need praise. It's important that children's efforts are appreciated along with their achievements. This positive reinforcement/encouragement helps children to experiment successfully and to feel good about themselves. Teachers should be prepared for every child to behave and respond differently even in a similar situation, because children vary in their cognitive styles and differ in the way they think and reason out problems. Also, the teacher has to take into account the social and cultural differences between children of different families and how these can influence the abilities and willingness to adopt certain good hygiene behaviours.

7. Finally, children love to play. It's fun! Playing is a form of active learning and a very good way for children to learn. One of the characteristics of active learning is that children play and freely exchange thoughts. This process is based on motivation from within the child. Many themes and topics that should be discussed can be integrated into games such as board games, jigsaw puzzles, broken telephone/Chinese whispers and role-plays. For example, with Chinese whispers, the children will form a line and the teacher gives a (health) message and the children pass it on by whispering in each other's ear. The last child says the message aloud. Then the first child gives the original message. This is a fun way to learn hygiene messages, but also serves to analyse what happens when communicating messages between people and why messages start to be changed.

There is never one right way for children to learn. The only way to see what is effective in which situation is by experimenting.

3. Participatory learning methods in life skills-based hygiene education

Use of group work for participatory methods

Participatory learning and teaching methods such as games, role-plays group discussions, can be carried out with the whole group or with several small groups. Working with a whole class is best when dealing with a method in which students give each other positive feedback. Working in small groups is recommended when every student has to participate more than once or if the method takes longer. Use of small groups gives every student a chance of fully participating and encourages participation and exchange of opinions. At the same time, the group work helps the children to develop cooperation and teamwork skills. At the end of small-group work at least a few minutes should be dedicated to work with the whole class. The spokesperson of each group then responds back to the class about what the group was doing and what conclusions and results they reached.

To make sure working in small groups is successful, there are a few basic rules that the teacher should establish with the students:

- All the children in the group work together. Cooperation is important, not competition.
- Each member of the group helps the other children to feel that they belong to the group.
- All participants in the group are equal and have the same rights. This can be stressed by sitting in a circle.
- A group is doing well when all the children are involved in the activities and no child dominates, although different children will ''participate" in different ways. To help the groups do well, the teacher can observe the process of each group and provide encouragement/positive reinforcement noting where each of them is doing well. S/he can also ask a student in each group to observe who are most active and least active and report afterwards. This is not to criticise or punish the children or group concerned, but a way to learn and improve!
- It is important to nurture trust in the group.

Participation in activities is important.

Examples of suitable methods

For effective child-centred life skills-based hygiene education, the methods that are used must be activity-based and joyful for children. They should not only give the children the opportunity to learn by doing and experiencing but also the chance to learn at their own pace and following their own learning style. Use of these methods will give the children the chance to experience, discover, create and construct their own knowledge. This will give them the opportunity to personalise the information and develop positive attitudes and values as well as to practise the skills they need to avoid risky behaviours and unhealthy situations and adopt and sustain healthy life styles.

For example, a lecture is an effective way to increase knowledge, but it is less effective in influencing beliefs and building skills. Discussion, debates, participatory exercises and carefully prepared written materials can be more effective than lectures in dispelling the logic or foundation of local myths. Table 6 gives an overview of the different methods that can be used in life skills-based hygiene education. Several of these are described in more detail. For each of these methods, an example is given on how the method could be applied in the context of life skills-based hygiene education.

The suggested methods are not only useful for hygiene education but can also be used in other classes, for example: Role-plays can be used to learn about the history of the country and discussions can be used to learn new words in English class.

Table 6: Examples of participatory methods suitable for life skills-based hygiene education

Methods most suitable for the age group 4-7	Methods most suitable for the age group 8-12
• Listening to and telling stories • Reciting poems and songs, and singing songs • Drama/short skits • Seeing and doing various types of puppet plays • Simple sorting games • Language and number games and assignments • Reading and reacting to stories • Walks, doing simple observations • Skills demonstrations, with peer observation and analysis • Movement games, competitions • Conversations and discussions • Drawing, painting, colouring, claying • Doing simple hygiene tasks	• Listening to and telling stories • Reading and analysing stories • Doing quizzes • Conversations and discussions • Singing and dancing • Drawing and painting • Making various types of models • Writing compositions and creative writing • Brainstorming • Excursions • Drama, role-plays, pantomime, skills demonstrations • Peer observations and analysis • Language and maths games such as crosswords • All kinds of competitions

• Presentation to parents and family members	• Development of maps, e.g. of the community • Measurements and calculations • Practical work, e.g. making soap, building a drying frame, measuring a latrine, making a soak pit or waste pit • Developing and asking questions/surveys • Carrying out projects • Exhibitions

When choosing a method for a lesson, the teacher should ensure that the chosen method is not just used for the sake of using a participatory method. Although the lesson might be joyful and activity-based, the method used may not necessarily lead to the planned learning. It is therefore important to ensure that the chosen method will effectively address and bring across the planned content (knowledge, attitudes and skills) and enable the child to learn in a joyful and interesting way.

- **Class conversation**

  Questions from students can induce a class conversation. The whole class discusses the subject. Students can interact. As interaction proceeds, the children can be asked to summarise the discussion, giving the thread of the conversation. During the evaluation, the whole discussion is summarised. Subsequently, the teacher gives remarks about the discussion and the input of the students in order to evaluate the conversation. Through class conversations, all children are able to learn to formulate and defend their opinion and learn to respect the opinions of others.

  In the context of life skills-based hygiene education, this method can, for example, be used to discuss whether or not hygiene work is only for women and girls, or whether having or not having latrines is a family's individual responsibility. Younger children can sit in a circle and be asked to talk about a subject in turn, e.g. about how they wash: if they had a bath or a wash this morning or some other time, if the water was cold or hot, if they used soap/a cloth/brush/sponge/certain leaves or a local 'sponge' such as a dried plant, who washed them, etc. The other children may react as well, but the teacher will make sure that every child gets a turn and that no child is criticised or stigmatised by the other children. The teacher can then give information about the importance of washing and bathing – that it does not matter if it is with cold or warm water and without or with soap as long as you rub vigorously, talk about useful plants, not wasting water, etc. If the class is too big, the activity can be done with some of the children and be continued with a second group of children the next time, until everyone has had a turn in a class conversation.

- **Concentric circles**

  For this activity the teacher forms two equal groups. One group stands in a circle facing out and one group stands in a circle facing in, so that everyone is facing a partner. The class is asked a question. The students in the inner and outer circle discuss this question in pairs. After a few minutes the outer circle rotates to the left,

so that each student is facing someone new. The process is then repeated, with either the same question or a new one.
The types of questions that are asked will vary with the age of the group and the purpose of the activity. Younger children can, for example, ask each other, "Do you like to wash your hands, or your face, or take a bath?", "Why?", "Why not?" Older children may discuss, for example, "Is hand washing after using the latrine important?", "Why/why not?" or "Are home latrines only affordable for 'rich' people?", "Is it useful to purify water? And can everyone do it?" Through the use of this method the children are stimulated to exchange ideas and experiences in pairs. In plenary the teacher may then ask the children what kind of answers came out, give information and facilitate discussions on how to solve any specific problems that came up.

- **Problem-solving discussions**
  The subject of the discussion has to be determined and delineated by the teacher. The class decides which students are in the discussion. The other students will be observers. The students tell why they want to talk about this subject and determine the goals of the discussion.

  The discussion starts and the students in the discussion group can express their viewpoint. Observers note the differences/agreements between the viewpoints. Next, the students try to formulate the problem. Then they may brainstorm about possible solutions. Thereafter, arrangements are made for solving the problem, for instance: who will do what and when?

  Finally all students evaluate the discussion. Questions that can be added during this evaluation are: "Was the discussion useful for all the students?" "Has the goal of the discussion been achieved?", "Did everyone participate?", etc.

  This method is especially suitable for children in the age group of 10-12. It is suitable for all kinds of topics on which children can take action, e.g. how to wash hands well when one has no soap, or how to assist the older and poorer people in the community in getting a latrine.

- **Forum discussion**
  This activity is for the older age group. The subject of the forum discussion is defined and expressed as a question. The class chooses three forum members. As preparation, the forum members get rules and information that they have to study in advance. The teacher introduces the subject and gives an explanation if necessary. Each forum member is given some time to express his/her viewpoint on the subject. After this, the forum members publicly discuss the subject with each other. The 'listeners' can ask for information, place remarks or ask questions to which the forum members have to respond.

  Through a forum discussion the children will be able to develop listening skills, as well as skills to react critically and ask questions. They will also learn that although sometimes opinions differ, this does not mean that one opinion is more right than another.

Some of the topics that may be useful to discuss are, for example, which safe water sources exist in the community and how to keep them clean, how to prevent local diseases from spreading, how to involve community in hygiene issues.

- **Continuum or rope-voting**
  For this activity the teacher draws a line on the ground. One end of the line represents strong agreement with a position or statement and the other end represents strong disagreement. Gradations of opinion are represented by points between. The teacher reads out a statement on a controversial issue. An example is: "We cannot improve hygiene because we are too poor." Or: "Taking care of domestic hygiene is for women and girls only." The teacher then asks the students to take up a position along the line that represents their point of view. The teacher then breaks the line into two segments with an equal number of students. The two extremes of the line are matched with a more moderate position. The children are asked to share their points of view with each other. They may then choose to regroup along the line. By asking children to agree or disagree with a certain statement and make them explain to the other group why they agree or disagree, the children will learn to make decisions as well as to explain themselves in plenary.

- **Calling numbers/Jigsaw puzzle**
  To start this activity each participant gets a number between one and four. Thereafter all number ones meet as group one, the number twos meet as group two, etc. In these groups, the children discuss and research an issue. Thereafter, they form new groups of four children in which numbers 1, 2, 3 and 4 are represented. In these small groups the children give feedback to each other and learn from each other what the other groups have learned.

  In organising the groups the teacher can use pictures or coloured cards that have been cut into four pieces, or use different coloured leaves, stones, etc. After the pieces or items have been distributed, the students form a group with all different pieces or items. Later they form groups in which all children have one part of the same picture, or all have cards/items of the same colour/type.

  This method can be used to share knowledge and is a way to form groups during the exercise. In life skills-based hygiene education this method can, for example, be used to form small groups that can carry out a research or survey on the hygiene problems in the community or the households of the community.

- **Brainstorming**
  This method stimulates creative thinking. It also generates a number of alternatives. A variation of brainstorming is that each child writes his/her idea on a slate, card or piece of paper. These are put on the ground, read aloud, and then grouped. Alternatively, each child may write his/her idea on the blackboard and then the entries are read out and grouped.

  Examples for brainstorming are questions such as: "What can make water dirty?" and "What would be the best place on the school compound to build a latrine?"

- **Role-play**
  This method exercises the students' ability to take other perspectives into account and develop problem solving and conflict resolution skills. Children are asked to act a given situation. As they role-play the situation, they communicate with each other and develop new skills such as cooperation, creativity and self-expression. Some children feel shy acting in front of a large group, so ask for volunteers or form groups which will all role-play in a small group. Once the role-play or plays have been done, the teacher may ask questions about the performance. It is very important that the roles played do not extend beyond the subject, as this discourages children from participating in role-play.

  During hygiene classes the children might be asked to act out the activities involved in the preparation of food or a water point committee meeting in which the roles and responsibilities of the different community members are discussed. During the evaluation of each role-play, it is important that the teacher pays attention to how the gender roles and responsibilities are acted out, and whether these could be changed. In some cases it might also be important to pay attention to other aspects of social equity, such as cooperation between different economic, religious and and/or ethnic groups.

- **Pantomime**
  The children perform a play without talking. They may, for example, be asked to depict a certain subject, such as playing with and taking care of their siblings. After the pantomime, the observers explain what was depicted and this is followed by a discussion with the whole class. By playing pantomime, the creativity and concentration of children is expanded and they also learn another form of expression. The observers learn to interpret body language and a different form of expression from talking.

- **Songs**
  With the children in the age group of 4-7 years, the teacher can teach a song to the children, which they sing once a week. At this age, the children like repetition and the song can serve to reinforce good hygiene behaviours. Combining the song with behaviours give the children the opportunity to move. They may, for example, sing about and imitate all the hygiene activities that they may do before they go to school, when they collect water, when they eat certain types of food, etc.

  With children of the age group of 9-12, the teacher can provide the class with a subject for the song and ask the children to make the song. The class chooses a melody of a song which is known by them all. The teacher divides the class into four or more groups. Each group makes a couplet on the melody of the chosen song, after which each group sings their couplet to the other groups. Finally all the couplets merge to create a song.

  Subjects that can be used for making a song might be the risks of playing in an unhygienic community, or a song about the different diseases in the community that are related to water, sanitation and hygiene and how these can be prevented. Older students can also make songs for children in the lower classes.

Singing songs is a fun way to learn.

- **Games**
  The use of games such as board and card games can have an entertainment value and can arouse children's interest. If properly used, games can promote children's participation and bring a meaningful context to the teaching and learning process.

  Examples of games that can be adapted for the context of life skills-based hygiene education are 'snakes and ladders', 'memory'[5] and 'happy families' (ten sets of quartets each depicting, for example, four different safe water sources, or four different latrines, four tools needed to clean latrines, four different uses of water, etc.).

- **Demonstrations**
  This method requires the students to practise skills such as preparing food in a hygienic way, washing hands or washing dishes. Demonstrators can be silent, with the comments and explanations coming from the observers. Alternatively, demonstrators themselves may be asked to explain, for example, how they wash the dishes, when and why they wash the dishes and how they dry the dishes. They can also discuss such issues as what to do when there are no materials to wash and dry the dishes, or when such materials are too expensive and how to ensure that the dishes are stored in such a way that they are kept clean. More sensitive issues, such as what to do if fathers or boys do not help with the household chores, may also be discussed via demonstrations.

[5] Memory - This is a game with a number of pairs of cards (two similar cards), that are turned upside down. Each time it is your turn, you can turn two cards face up. If these are similar you win the cards. If not, you have to try remember where the similar card are located and hope that you find a pair in your next turn.

- **Voting**
  This method may be used to learn about different conditions or practices or to take decisions in a plenary. An example is: have a drawing of all places where families in the community defecate, i.e. the fields, a bush, the beach, a hole in the ground, a latrine, the rubbish heap, etc. Give each child a bean, pebble or small piece of paper. When the voting is supposed to give insight into differences for girls and boys, make sure both groups have their own type of token, e.g. two different types of seeds, or a seed and a pebble. The groups now place their token on the place where they usually go to defecate. The results are discussed: what is done most, what least? Do girls and boys use different places? What is best, what worst? Why? What can be done? What problems may exist? How can they be solved? The method is known as pocket voting when the drawings are placed at some distance from the group and the children deposit their token or item one by one in the boxes, paper bags, envelopes or other type of receptacles that are placed under each picture. After everyone has voted, the participants lay out the votes under each picture for analysis and discussion. Pocket voting gives more privacy and is thus more suitable for sensitive subjects.

- **Ranking**
  This method stimulates a deeper discussion of issues and the clarifying of priorities. An example is the ranking of the local water sources from safest to most risky for drinking. This can be followed by a discussion about why one source is riskier than the other and what causes this. Another example of ranking, also known as a sanitation ladder, is the ranking of different places where people defecate from the safest to the most risky. An example of how gender and poverty aspects can be included is presented in box 5.

Box 5: Example of how to incorporate gender into ranking

Children make drawings on paper or slates of implements for collecting, storing and drawing drinking water at home. The teacher invites the children to sort them into two piles: risky and safe, or to lay them out in a range from riskiest to safest. In the discussion, questions are included on what can be done to make methods safer, whether everyone can afford to use safe methods, and which improvements need little or no money. Also up for discussion is how much work is involved in using safe methods and what boys and girls can do to help. By asking the children to add the names in the local and/or national language, the children expand their vocabulary and writing and learn to spell new words.

- **Field visits**
  This method offers children the opportunity to experience real-life situations. Instead of the teacher explaining a process or situation in a classroom, the children are taken to observe and learn from people and situations in the field. For children to benefit most from field visits, it is important to discuss the issue partly and raise some questions that children should seek answers to when they go out. After the field trip the children are given the opportunity to discuss what they have learned, and then

write reports. During the field visits the children can be asked to identify the main risk practices in households that are responsible for transmission of prevalent water and sanitation diseases in their community. They can also do structured observations. The results can be used in lessons on hygiene and the environment.

4. Themes and topics of life skills-based hygiene education

The major themes for life skills-based hygiene education

One way to organise a curriculum is to use themes and subdivide them into topics. The content of the themes and topics for life skills-based hygiene education should be based on a local assessment of diseases, attitudes, and behaviours prevalent in the various areas. For each region, the most appropriate content needs to be identified, including knowledge, attitudes and skills. In general, the content that could be included in life skills-based hygiene education can be divided in four themes:

1. **Water, sanitation and waste.** This theme covers the different types of water sources, the transport, handling and storage of drinking water and different types of waste (including human excreta and rubbish) in school, homes and community and how they differ in terms of cleanliness and risks to health. The lessons can build upon local knowledge, but should also address locally incorrect and or incomplete perceptions. Many cultures distinguish, for example, between cleanliness of water from different sources, with usually rain and spring water recognised to be cleanest. Some common perceptions are not correct, e.g. the belief that infants' excreta are harmless.

2. **Personal and food hygiene.** This theme may cover topics on preparing food, cleaning food and eating it. It also covers personal hygiene behaviours and practices such as washing hands and face, combing hair, bathing, etc. It encompasses food hygiene in school, homes and the community, covering conditions and practices that are either positive or negative and the reasons, ways and means to change the negative ones.

3. **Water and sanitation-related diseases that have an impact on health.** Typical topics are the incidence, transmission and prevention of diseases in the local environment. The most common diseases to address are water, sanitation and hygiene-related diseases, such as diarrhoea, skin and eye infections and worm infestations, but there may also be locally specific diseases as a result of arsenic or fluoride poisoning in areas with high levels of those chemicals in drinking water.

4. **Facilities for water, sanitation and hygiene within schools, households and the community.** This category can cover topics such as the proper construction, maintenance, management, use and monitoring of provisions for water supply, excreta disposal, refuse disposal, handwashing, and water storage facilities as well as provision for the washing and drying of cooking and eating utensils and provision for kitchen and food hygiene in the schools. It also covers the participation of the staff, boy and girl students, and male and female parents in the design, planning, construction, and technical training for maintenance of the school facilities (see box 6 for an example of how this has been done in Vietnam). As part of this category, the programme may also introduce staff, students, and parents to facilities that are more suitable for home conditions and include technical training for the construction of basic facilities.

Children evaluating school latrines

Box 6: Example of a workshop aimed at involving children in the design of facilities

The UNICEF-supported school sanitation and hygiene education (SSHE) programme in Vietnam strongly promotes children's rights to express themselves and to participate in the projects that concern them. Therefore the children of primary schools in different districts participated in workshops to review the conditions of the sanitation in their schools. The workshops aimed to empower children to participate in the design of child-friendly facilities.
During the workshops, boys and girls were asked to draw a happy and a sad face on a sheet of paper and to write what they perceived as positive and negative about their latrines under the appropriate face. They discussed the outcomes in groups of five and agreed on the three main positive and negative points. They then thought about solutions to the problems and about their role in making the situation change. Finally, child-friendly designs for latrines were presented for them to express their comments and suggestions. The session ended with a summary of what was to be done, by whom, and how. The adults acted as facilitators and initiated the activities, but did not influence the children.
Source: Vietnam UNICEF programme

Incorporation of concepts such as gender and poverty

Important concepts such as gender, equity, poverty and human rights (such as the right of access to safe water and sanitation) are cross-cutting and are therefore incorporated in the different themes and not mentioned separately. Examples on how this can be done are presented in box 7.

Box 7: Examples of how gender and poverty can be incorporated in the themes

Part of a life skills-based education is that children become aware of gender and social differences and the inequalities and discrimination that are often associated with them.

Between the ages of seven and nine, children begin to deepen their knowledge and understanding. They become aware of local differences and begin to understand that local decisions and actions have different implications for different people and groups, e.g. for women and men and for better-off and less well-off families. They also notice social problems in their immediate environment: their class, school, home and neighbourhood.

This is the age of wanting to take problem solving action for one's self and for others, the development of strong friendships and first attraction to the other sex, including learning about what is accepted and what is not, of being able to express one's own views and to listen to and respect others.

Imaginative and creative teachers can bring up social and gender differences and problem-solving actions in many ways as part of various types of lessons, e.g.:

- **Hygiene work and responsibilities:** How is the work on sanitation and hygiene divided in the class/school? Who helps to fill the water storage tank at school, who cleans the girls' latrine and who cleans the boys' latrines? How is work for hygiene and sanitation divided at home, between mum and dad, older sisters and brothers, you and your brother/sister? Who sets good examples (a) in school (b) at home? What do you do when you see that a classmate/younger child does not leave the toilet clean/does not wash hands/throws away rubbish? What do you do when your younger brother/sister does something unhygienic?
- **Latrines in the community:** Does everyone at home have latrines? How many families in our neighbourhood/community have no latrine? What does it mean for our community/neighbourhood when one third/half/three-quarters/... of the families do not have a latrine? What keeps some families from having latrines? Who may have the greatest problems to dig a latrine pit, buy/install a slab, build an outhouse? What can be done by/for families who have little or no money or no labour to build a latrine?
- **Latrine use at home:** Who uses the latrine in your family? Mother? Father? Grandmother/grandfather? Younger brothers/sisters? What happens with the excreta of the baby/small toddler at home? (The stools of young children are often believed to be harmless. They are therefore not always cleaned up or thrown behind the house or on the rubbish heap. In reality, stools of young children and babies are harmful because they often contain diarrhoeal germs or eggs of worms. This is an aspect that can be brought out quite well in a lesson on disease transmission). Who cleans the latrines? How much work is involved? How equitably is the work divided? What effects may inequitable division have?

- **Water supply at home/in the community:** Who uses which type of water sources in the community? Which sources are safer/closer/more convenient? Which are risky/far/less convenient? What causes these differences? What do they mean for the families involved (the mother, father, girls, boys, etc.)? What can be done in the way of improvements?
- **Water storage at home:** How does your family store drinking water? How do you draw drinking water from the storage vessel? Can methods be put in order from the most costly to the least costly? What can be done to make storage/drawing safer? Can everyone do these things? Can the solutions be put in order from the most costly to the least costly?
- **Handwashing with soap:** Does the school always have soap for handwashing? Is this soap always kept safe and clean for use? If not, what can be done? Do all families have soap for handwashing? If not, why not? What local alternatives can be used?

The incorporation of sensitive issues

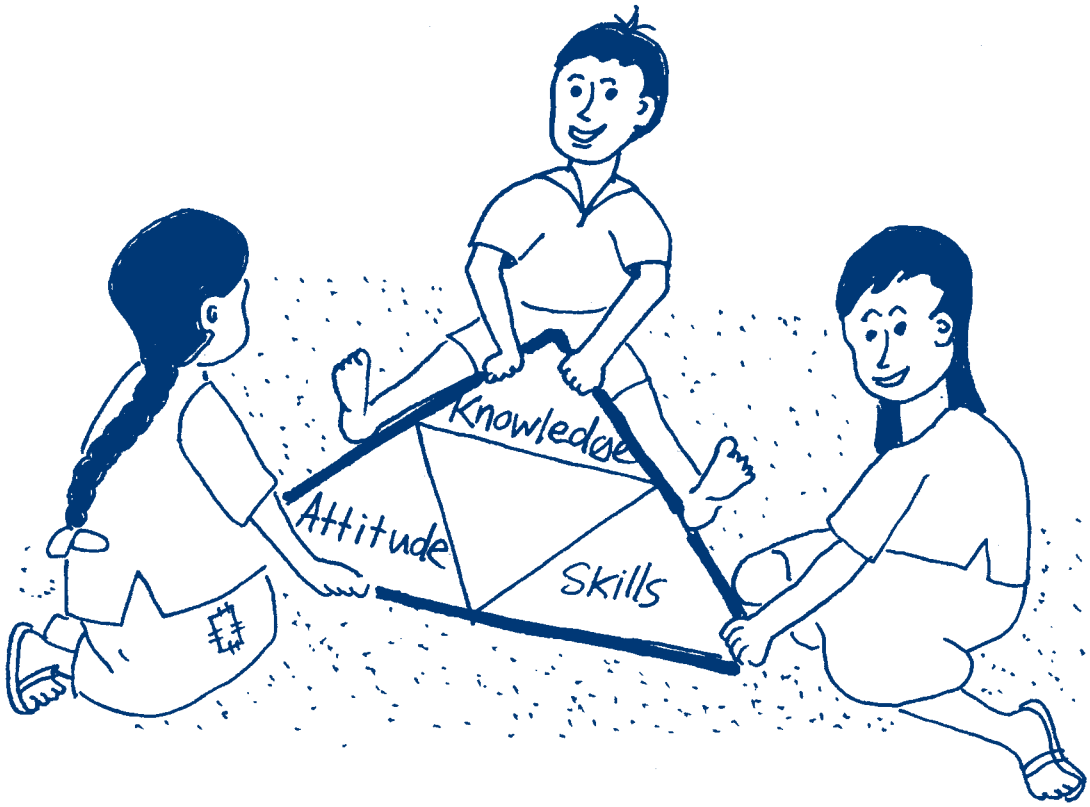
Teachers will have to find ways of dealing with sensitive issues related to sanitation and hygiene such as menstruation of girls in early puberty, the personal hygiene of private parts for boys and girls, sexual curiosity and forms of harassment ? from teasing and pestering to physical violence and sexual abuse. Addressing these issues is important for the physical and mental health of children. The proper cleaning of oneself after defecation is, for example, important to avoid urinary infections, especially in girls, and good urination habits and personal hygiene are also important in prevention of cancer in both sexes. Although it might be difficult for teachers to deal with such issues in their social and cultural settings, life skills-based education can be a useful context for handling these issues.

There are various examples of ways in which teachers and schools in the different countries handle these issues. During a discussion in a life skills-based hygiene education training course in Zambia, teachers recognised that becoming curious about the other sex is a natural and healthy part of the development of children. It is often adults, not children, that make this a touchy subject. They also concluded that discussing how girls and boys use the toilet differently because they are built differently and have different roles in having a family helps to treat the subject in a natural manner. They also agreed that use of appropriate participatory and interactive methods, such as drawings and case analysis, helps to address sensitive issues in a socially and culturally acceptable manner. In Vietnam, schools have adopted policies against all forms of teasing and harassment. They have involved students and teachers in the formulation and regular review of this policy. In this way, the policy is generally known and more readily applied in practice. In schools in other countries, girls and boys know which teachers they can go to for counselling in case of problems with various forms of harassment or other problems of a more sensitive nature.

Contents of the themes

In developing life skills-based materials and lesson plans, a balance of the three elements: knowledge, attitudes and skills needs to be considered for every theme/topic. For each theme the different topics that will need to be addressed must be identified. For example, in the context of facilities for water, sanitation and hygiene the children will have to learn about environmental hygiene and the link to facilities, defecation practices, operation and maintenance of the facilities and the technical and managerial aspects of facilities.

Section 2 of this document provides an overview of the content for four major themes. The content is broken down into knowledge, attitudes and skills. The overview should be seen as a guide and the content will need to be adapted or changed to make it suitable for the local situation. Table 7 gives an example of the possible contents for each theme for children aged 6-9. Some contents, such as simple practices on personal hygiene, are more suited to younger children, while preparing an anti-dehydration drink is more suited for the older age group. The last column gives possible teaching and learning activities. These should be further developed to ensure that the 'content' and the 'knowledge, attitudes and skills' are effectively addressed, taught and learned. It is also important to ensure that the knowledge, attitudes and skills that are included in local lesson plans focus on the locally or regionally most important aspects relevant to the experiences and interests of children of different age groups
and in different situations.



Knowledge, attitude and skills

Table 7: Examples of content and methods for the four school sanitation and hygiene education themes

1. Types of water sources, waste and environmental hygiene			
Required knowledge	**Required attitude**	**Required skills**	**Method**
• Know all water sources in school and community and their purpose • Know the difference between safe and unsafe water sources for drinking (and bathing, swimming in case of bilharzia) • Be informed about locally specific polluted sources (e.g. arsenic polluted sources or chemical pollution due to war) • Can mention ways of protection for two different water sources from contamination or know best alternative for polluted sources	• Reject using sources for those purposes for which they are unsafe if alternatives are available • Are willing to prevent the spread of diseases by specifying which contaminating behaviour they will avoid • See it as a duty to warn and explain to other children and others in school, at home and at the source about risky behaviours at water sources and the risks of the source • Are willing to help each other and community members to secure safe drinking water	• Can demonstrate how water gets contaminated • Can apply specific purification techniques if available • Can filter water through various media to make it safer for drinking • Can demonstrate how to partially disinfect drinking water through sunlight • Can explain limitations	• Take clean/dirty water from home to school and give presentations from which sources the water comes • Songs about the water and the contamination of water • Story about swimming and drinking water, or catching bilharzia if bathing in unsafe water and staying in too long • Sharing school chores like fetching water between boys and girls • Organising school – community health days

2. Personal and food hygiene			
Required knowledge	**Required attitude**	**Required skills**	**Method**
• Can describe/ demonstrate how to take care of the hygiene of different parts of their body (hands, face, bottom, feet) • Can mention three ways to handle food safely • Can mention two ways to practise good hygiene in hardship situations (e.g. little water, no soap) • Are able to identify hygienic food vendors around the school	• Take pride in looking clean • Think washing their face/bottom/hands is important to be clean and healthy • Are willing to keep food safely • Feel they should help schoolmates/younger brothers/sisters to practise hygiene • Like smelling fresh • Refuse to buy food from unhygienic food vendors around the school	• Can demonstrate how to take care of the various parts of their body • Are able to demonstrate and explain how to handle food and water safely (e.g. in class/school) • Are able to communicate respectfully to those not handling food and water safely • Have the skill to resist peer pressure	• Presentations: In groups, children present different risks of bad body hygiene to the rest of the class • Discussion on good and bad food handling practices followed by drawings on good food handling • Role-playing practices; others observe and guess/comment • Guided group discussion with food vendors • Expositions and discussions with parents and community members

3. Water and sanitation-related diseases			
Required knowledge	**Required attitude**	**Required skills**	**Method**
• Know three diseases most prevalent and most serious in their community • Can mention how two practices link with hygiene and health • Know the prevention mechanisms	• Care about the prevention of the most prevalent and serious diseases in their community • Find it important to communicate about the links between poor hygiene behaviour and health/ hygiene • Know they can help their community in helping to prevent diseases	• Are able to distinguish between risky and safe practices • Are able to prepare an anti-diarrhoea drink (water with sugar and salt, 'as salty as tears') • Are able to identify alternatives	• Discussions on how people can get the diseases • Knowledge quiz: Teacher makes statements on this subject. If the children agree, they run to one end of the class, if they disagree they run to the other end. Who is right?

3. Water and sanitation-hygiene facilities			
Required knowledge	**Required attitude**	**Required skills**	**Method**
• Can explain why good facilities and their hygienic use at home, in school and in the community are good for people's health • Know how contamination affects the water supply system in their village/town • Know the amount of water consumed and the cost of water in their school, community • Know the basic operation and maintenance requirements	• Feel that good environmental hygiene at home, in school and in the community is important for everybody • View it as a bad thing when the water supply systems in their village/town get contaminated by poor hygiene behaviour • Are aware that water supply, consumption and cost are related	• Boys as well as girls: • Can use a toilet hygienically • Can do simple cleaning tasks • Are able to reduce water wastage	• Consequences quiz; If you do this, that will happen. The teacher mentions a behaviour and the children have to write down what will happen as a consequence. • Practising proper use of toilets. Do simple cleaning tasks without discrimination (everyone does all cleaning work equally often and thoroughly).

The development of a life skills-based hygiene education curriculum

When developing curricula, there is a need to involve the organisations that are directly concerned, such as the Institute of Curriculum Development of the Ministry of Education and the Ministries of Health and Water. For the curricula to be effective, they must also target the most relevant hygiene issues in the community. In collecting information on which knowledge, attitudes and skills need to be addressed, parents, teachers, community members, local organisations and students can be involved. All these actors can help to identify the behaviours, knowledge, values, attitudes, beliefs and skills that must be addressed to reduce water, sanitation and hygiene-related diseases in any particular community. This involvement needs guidance, however. Box 8 gives an example of involvement of teachers in development of the content and the teaching and learning methods for life skills-based hygiene education.

Box 8: Example of the involvement of teachers in the development of life skills-based hygiene education materials in Burkina Faso

To start the development of materials for life skills-based hygiene education, twenty or so participatory learning exercises were developed by the team that prepared the training. The exercises consisted of a definition of the theme and topic, listing the hygiene objectives of the activity, a list of required materials, a description of the actual activity and an overview of the life-skills that were developed by it. During the training itself, the teachers were encouraged to practise part of these activities. Subsequently, they split up in small groups to develop similar activities themselves, first on a theme and topic that the facilitators had chosen and then on a topic of their own choice.

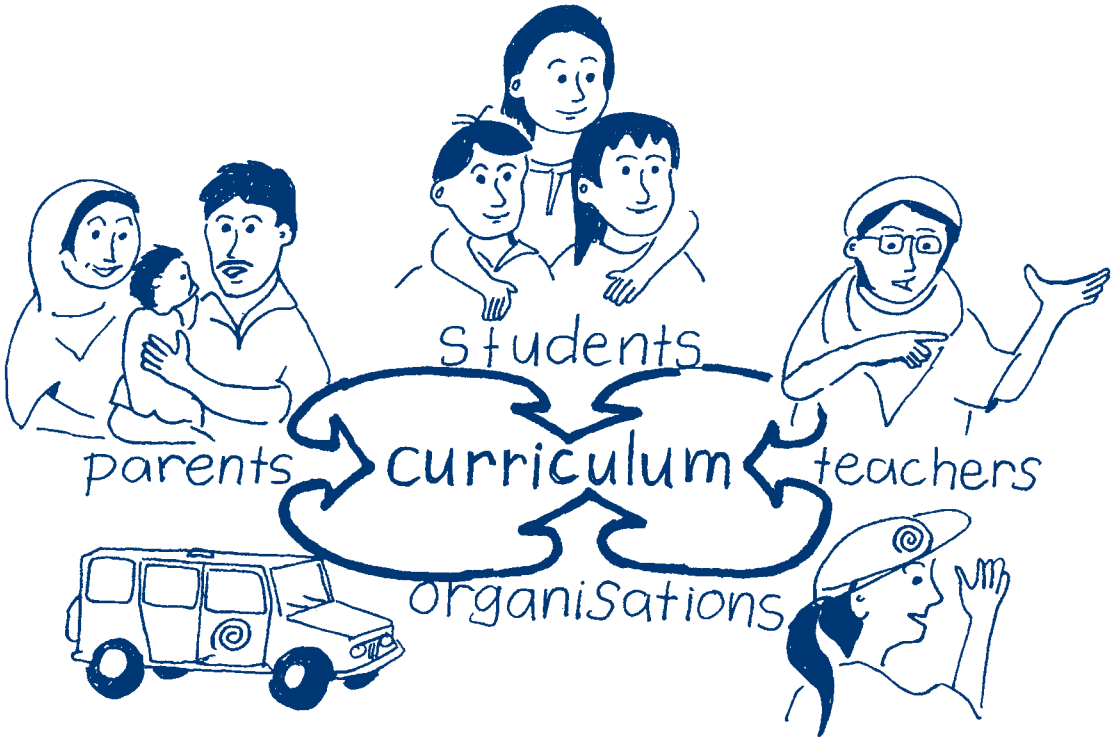
These and other materials, which will be developed in the future, will form the core of a so called 'Guide Dynamique'. The facilitators and teachers are creating a loose-leaf manual with sheets describing each learning activity. With the help of the teachers, the project team wants to continue adding new games and exercises to the guide, until it covers all risks and their prevention through learning exercises with every age group in school and with siblings at home. It is intended that once an interesting guide has emerged and is field-tested, UNICEF and its partners will print the materials and replicate their use in other areas. The printed materials will be a communal and participatory product and a concrete output of the project.
Source: UNICEF Burkina Faso

Key steps for the development of locally specific curricula

For the development of locally specific curricula, the following seven steps can be followed:

1. Analysis of the situation: Identify and prioritise the key behaviours and conditions that need to be addressed and the most important factors that influence these. The key behaviours and conditions can be expressed as overall programme objectives.
2. Determine the existing varying levels of knowledge, attitudes and skills of students as well as the prevalent local myths and beliefs, values and practices of the children and their home and community environment. This step should result in identification of key gaps in student knowledge, attitudes and skills, and this can be converted into the 'content' of the programme.
3. After this, determine the desired end level of knowledge, attitudes and skills that the children will need to enable them to deal with the identified behaviours and conditions in a healthy way. These can be expressed as knowledge objectives, attitudes (and values) objectives and skills objectives, which relate directly to the factors affecting the key behaviours and conditions identified in step 1 above.
4. From here the teachers and curricula developers can determine the specific themes and subjects for the lessons and set the objectives for each lesson.
5. Once lesson objectives are set, the specific content can be determined and described.
6. Then the most useful teaching and learning methodology and specific activities for conveying and developing the content can be planned and set in a timeframe.

7. Exercises need to be specifically chosen and developed for the target group and for their relevance to achieving the overall programme objectives. (See chapter 5 and section 3 of this document for examples of lesson plans).



Sources to develop curricula

Placement of life skills-based hygiene education

Life skills-based hygiene education is unlikely to be included as a subject on its own, given the already overcrowded school curriculum in most countries. Often it can be included in an existing carrier subject. In many countries, health education (or similar) already exists in the formal curriculum, especially in primary schools, and this offers a comfortable home for hygiene issues, because they can be discussed in the context of other health and social issues. Environmental science is also a possible carrier subject, especially in secondary schools where health education may not be offered, although the life skills-based approaches are seldom used.

Experiences suggest that the integration of life skills-based hygiene in the 'more regular' subjects such as mathematics and geography cannot be recommended, as teachers may get into conflict with the different learning objectives and the content of the information. For example, when focusing on teaching pupils to count, teachers may be disinclined to address attitudes and skills related to hygiene. It is therefore important that life skills-based hygiene education is placed appropriately in the curriculum and not as a sideline in other subjects such as mathematics.

5. Principles for the development of lesson plans and materials

Identifying the elements of a lesson plan

The formal curriculum document, usually issued by the national Ministry of Education, lays out specific guidance to the teacher/facilitator on what themes and issues need to be addressed at what grades, and what learning outcomes need to be achieved. Often, the teacher/facilitator is provided with a module or set lesson plans to follow, but this is not always the case. Teachers/facilitators usually have some flexibility in how the lessons are conducted, as long as the designated learning outcomes are achieved. Whether lessons are provided or the teacher/facilitator develops them her/himself, this flexibility is important to maintaining relevance of teaching and learning to the local context. Thorough training, and systematic support to teachers/facilitators, helps them to create and adapt lessons so that they address real situations, disease or behaviour (bad or good) that occurs in the school, the homes and/or the overall community.

A lesson plan is the set of steps or instructions used to guide a teacher or facilitator through a set of educational activities. A lesson plan helps to give clarity to the teacher/facilitator about what is expected to be achieved (or learned), how this learning might be motivated and encouraged, and how long the lesson and elements within the lesson might take. A typical lesson plan includes the following information and guidance:

The elements of a lesson plan: expectation, motivation, duration

Existing knowledge of the children about the topic

Understanding the existing experience of students in relation to the module or individual lessons is critical to maintaining relevance. Situation analysis, other forms of related research, monitoring of learning from previous grades or modules, and direct observations made at school or in the community can all directly assist in this process.

The best 'teachable moment'

The local situation for that topic is an example of a relevant aspect that could influence the lesson. If the teacher has a lesson planned about diarrhoea during the season that diarrhoea is most prevalent and therefore the community is suffering from diarrhoea at that moment, the children will be able to tell and share real experiences in class and this will influence the lesson. Other examples of relevant aspects are: the weather (flood, drought, food oversupply or shortage), personal circumstances of the teacher or students, events in the community, the type and number of existing water, sanitation and hygiene facilities in the community, emergencies such as a cholera outbreak or a community project that is going on or due to start.

Purpose of the lesson (objectives)

This part of the lesson plan describes expectations of what students will learn (knowledge, attitude and skills) during the lesson; that is the lesson objectives and/or learning outcomes. Lesson objectives can be divided into knowledge, attitudes (and values) and skills. For example, if the topic of the lesson is about the prevention of water, sanitation and hygiene-related diseases, the lesson objectives may relate to which measures can be taken to prevent such diseases (knowledge), motivating students to be willing to carry them out or to communicate about such measures with others (attitudes and values) and developing expertise to take these measures (skills). It is important to note that the mix of these three types of objectives depends on the content of the lesson, and not all lessons will have all three types of lesson objectives. When developing or adapting the lesson plan, objectives and content, teachers will also need to ensure that each lesson deals with the relevant cross-cutting issues such as gender, equity, human and children's rights and poverty. Examples of how this can be done can be found in box 9.

Box 9: Examples of how issues such as gender and equity can be incorporated in a lesson plan

For a lesson on the prevention of water, sanitation and hygiene-related diseases it may be important to include a moment during which the teacher can discuss whether every community member will be able to afford to take the proposed measures and if not, why not.
In a lesson related to the proper use of latrines, the teacher may take into account that not all young children at school may know how to use the school facilities properly, that boys are often less careful in using latrines than girls, that latrines are sometimes places for harassing younger children and other undesirable behaviour and that older girls have an increased need for privacy and special provisions once they have their menses, such as water to wash and sanitary pads.

Time

The main concern about time allocation should be that the time allowed across the entire module, as well as within each specific lesson, is sufficient to achieve the objectives stated. Furthermore, the individual lessons of the module should be offered in relatively close proximity to each other to support cohesion and continuity for the learner. However, the amount of time available for a particular lesson or module/set of lessons depends on a range of factors including: the formal curriculum allocation of time for that subject; the school timetable and competing interests; unexpected events which disrupt school life; the training and support needs of teachers/facilitators; the physical classroom and general environment (e.g. noise, availability of clean water); class size; the availability of materials and teaching aids; the developmental stage of students (eg. concentration span) and the range of student learning needs that may be present within the same class or grade.

Resources and tools needed

The information, materials and tools that are needed for the lesson should be clearly identified in the plan so that the teacher/facilitator can prepare these ahead of time. For example, when the topic is the construction of latrines the teacher may need to have the correct information/regulations about what is considered a safe and suitable latrine, perhaps materials to make models or actual models such as pictures of different construction phases and information on how they can be constructed, and perhaps tools, for example for measuring of the floor plan. Wherever possible, the lesson should be shaped around the availability of local materials or adapted appropriately.

Introduction

The main purpose of the lesson introduction is to get the attention of students, usually in a short period of time. The introduction can be used simply to draw in the concentration of students to focus on an issue, to map out what is planned for the lesson, or to raise curiosity about a topic. A range of techniques can be used to do this such as stories, puzzles, stimulus questions, a problem, brainstorming or recalling a previous activity or lesson.

Main activity

This section of the lesson plan sets out what specific activity or set of activities will provide the main learning opportunities. A range of learning styles should be taken into account, including listening, observing, speaking, tactile activities and physical movement.

Closure

The lesson closure is also used to confirm key points and summarise conclusions, to highlight issues to be carried forward, or to signal preparation for future classes or events. In addition to monitoring student progress throughout the lesson, the teacher can check that students understand the key concepts or whether some issues need to be revised. Checking student understanding can also be done during the main activities. Some main activities allow for checking understanding while doing the activity, e.g. question-and-answer quizzes, while others require a separate debriefing time, e.g. role-play, followed by discussion or a worksheet, which might constitute the closure session.

Reflection for the teacher

After the lesson the teacher can reflect on what went well and what could be better. The teacher can draw his/her conclusions and adjust the lesson (or future lessons) if necessary.

Evaluation/reinforcement

Since the teacher sets specific objectives to be achieved, the lesson plan will also mention how the teacher intends to monitor the extent to which the learning objectives have been achieved. This evaluation may be part of a later event or lesson, e.g. in an activity during the introduction to the next lesson. For example, a specific number of children can correctly mention certain facts or demonstrate a certain skill, or direct observation may show the latrines are much cleaner during a follow-up 'learning visit' with the children and/or inspection visits by the teacher (box 10). Attitudinal elements can be monitored through discussion, through short answers to scenarios, through scaled items in surveys, and through self-evaluation. Evaluation and monitoring can also be made participatory, with the children playing an active part.

Box 10: Monitoring handwashing practices and water use.

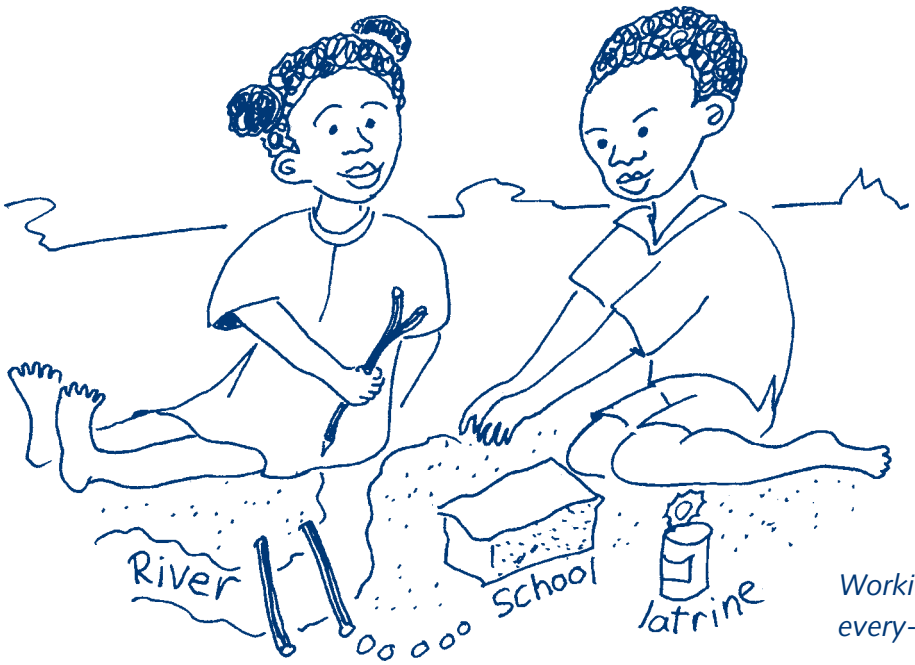
Locating handwashing facilities along the veranda made it possible for the teachers and the children to observe whether those children who return from a visit to the latrines during class time wash their hands afterwards. It also helps to preserve handwashing provisions. In Somalia, it helped to save water. (Safia Jibril)

Development of life skills-based hygiene education materials

Education materials include everything that helps people to learn. They are also materials that help teachers to teach. Life skills-based hygiene education materials may be sets of questions that students are asked to reflect on, discuss and answer; they may be textbooks; or they may be games, activities and practical exercises through which the students learn. Many natural and low-cost materials can be used for educational purposes in a life-skills approach.
When developing life skills-based hygiene education materials, a number of important principles should be taken into account.

- **Use of practical, locally available and acceptable low-cost materials**
  When the methods and materials in life skills-based hygiene education are inexpensive and culturally acceptable they are the most feasible to implement, and also more familiar and likely to be available to students in their everyday lives. The use of learning tools and games should not require a great deal of external materials, such as printed and plasticised tools. Use what is already available in the school, such as slates, chalk, a blackboard, paper, sand, water, local seeds, etc. Using activities that do not require any extra materials is more affordable and creative.

  An example of a practical, low-cost, locally specific education method is role-plays. The students can, for example, perform a role-play in which they illustrate the difficulties of having the whole family wash their hands before eating (practical and locally specific). Depending on the local situation, the play can be developed without having to worry about the costs. Other practical and low-cost methods that can be used are games, exercises, using slates or the blackboard for drawing, listing, sorting, and using real-life objects such as a pot, a jar, a cup, etc. (box 11). As indicated earlier, role-plays should avoid stigmatising or reinforcing unhelpful or antisocial gender differences and stereotypes, but instead promote cooperation and resilience.



Working with every-day materials

Box 11: Real-life objects for hygiene education

The need for the use of soap was illustrated with a very graphic exercise involving two buckets and a piece of soap. Two small groups of children lined up behind each bucket to wash their hands in the bucket with and without soap. The children washing their hands using the bucket without the soap could see that the water remained relatively clear with dirt staying on their hands, while the children using soap could see that the dirt from their hands was all coming off into the water. Simple experiment, but very convincing. The exercise can be expanded by adding two glasses, filling them with water from either bucket and holding them up next to each other to see the difference. (B. Mathew, Zimbabwe)

- **Development of curriculum, lesson plans and methods that cover all relevant aspects**
  Curricula and lesson plans in life skills-based hygiene education start from the children's knowledge and skills and the local beliefs, values, behaviours and conditions that are most relevant for the local context. Practices, skills, beliefs and knowledge of parents are also taken into account. Many cultures also have valuable indigenous knowledge and beliefs and local skills such as making latrine slabs, pots, drying frames, digging wells, etc. that can play a role.

  Technical interventions, student/parent/teacher participation and pedagogic activities are linked as much as possible. Lessons in class are, for example, related to what is planned, designed, constructed or repaired outside; opportunities are used for technicians to explain designs and/or ongoing work to the children and parents; technicians explain differences in design and costs between school and household facilities to avoid misunderstandings on what parents can and cannot afford. In Burkina Faso parents requested that children, including girls, are taught basic technical skills. Most importantly, in an integrated approach, female and male children, teachers and parents are all consulted so that their needs and experiences are included.

- **Development of educational curricula, lesson plans and methods**
  It is an important principle that educational methods are designed and selected in line with the development stages of the children, to increase knowledge, build positive attitudes and values, dispel myths, increase skills and promote the reduction and prevention of water and sanitation-related diseases.

  Development of the overall context of life skills-lesson plans is best done together with a variety of stakeholders who are directly and indirectly involved at the school such as boys and girls, fathers and mothers, teachers, community members, curricula people, etc. In school sanitation and hygiene education projects, teachers have participated in workshops on developing life skills-based education lesson plans. In some workshops, e.g. in Burkina Faso, parents participated during part of the planning. The team also did a parents' survey prior to the design of the hygiene education programme.

  Participation encourages all those concerned with the development of life skills-based educational lesson plans to focus on issues that are relevant for the local context and

set priorities for subjects on which hygiene education should focus. The development of life skills-based education materials is an active, participatory, ongoing process that helps to improve and renew the existing education materials and to further develop the life skills-approach in schools.

- **A cross-cutting approach**
  To be effective and reduce risky conditions and practices, good hygiene education cannot stop at school. It needs to expand to practices and conditions at home and in the community. Therefore, the materials need to be cross-cutting. This means that the problems in school, community and households are all addressed, and the inter-linkages should be pointed out. Gender aspects and social differentiation aspects should be included systematically to foster social equity and solidarity. For example, in school, children can learn to build a latrine (technical skills) and how to use it (social skills). Involvement of the parents is a very important issue in the cross-cutting approach. Children need to practise at home what they learn in school. Parents can be invited for a meeting in school to learn what the advantages are of having a latrine, how to build a simple latrine and how and when to use it. This could be presented by the children who have already learned about this subject in school. Equally, homework tasks can involve students working with their parents.

Examples of lesson plans and curriculum development

A new curriculum with life skills-based hygiene education in Zambia

In Zambia the development of the life-skills approach was part of the overall review of the existing curriculum for primary education. In 2000 the Curriculum Development Centre (CDC) in Lusaka, Zambia, developed the Basic School Curriculum Framework. It identified the teaching of life skills as an area of curriculum reform. Teaching of life skills was introduced as a component in school education at all levels and in all subjects. Health and nutrition are addressed as cross-cutting themes that have to be taught across the curriculum and psycho-social life skills have become part of six major school subjects: English, social studies, moral and social values, environmental science, home economics and Zambian (Ministry of Education 2000).

This means that the teachers who teach these six subjects will be helped to include the life skills that are closest to their lessons and activities. For example, health issues such as drug use, safe and clean drinking water and HIV/AIDS may be addressed in social studies and social and moral values; and consumer education will be covered in home economics and social studies.

In working with the staff of the Curriculum Development Centre to develop a more detailed plan on how the teachers of these subjects can integrate the various aspects of health and nutrition into their work, the School Health and Nutrition Team went a step further (Ministry of Education 2000). The ultimate plan defined the scope and sequence of the various themes and sub-themes that were to be included in the new curriculum:

what to cover with what classes and in what order. In every case the three guiding questions for developing the contents were:

- Knowledge about what?
- Attitudes towards what?
- Skills for what?

The results for the theme 'water hygiene' for grades one to seven is presented in table 8.

Table 8: Life skills-based hygiene education: Scope, topics and sequence of the theme 'Water and hygiene' for a primary school curriculum

SUB-TOPIC	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7
Water Hygiene **Life skills** • Self-awareness • Decision making • Problem solving	• Name sources of water • Distinguish between clean and dirty water • Discuss diseases associated with dirty water	• Discuss ways of conserving water • Discuss faecal oral transmission • Discuss dangers of contaminated water	• Discuss water borne diseases • List ways of preventing water borne diseases	• Discuss effects of diarrhoeal diseases and bilharzia in the body	• Discuss measures for purifying water • Discuss bilharzia cycle	• Discuss methods of preventing and control of bilharzia and diarrhoeal diseases	• Visit water works • Visit sources of water • Construct a water filtration system
Food hygiene **Life skills** • Self-awareness • Decision making • Critical thinking • Problem solving	• Eat clean food • Carry food in clean lunch boxes	• Discuss dangers of street food • Explain the importance of eating hot food	• Discuss the importance of hygienic preparation of food	• Discuss food storage facilities	• Explain danger of poor food handling and storage	• Discuss ways of storing perishable foods • Store food hygienically	• Clean food storage places correctly • Community Hygiene

Community Hygiene **Life skills** • Effective communi cation • Problem solving • Decision making	• Name items used for cleaning surround -ings • Discuss the im- portance of fresh air in the room	• List measures for cleaning home surround -ings • Identify items used for cleaning the surround -ings • Clean the surround -ings	• Explain commu- nity hygiene • State the impor- tance of commu- nity hygiene • List the compo- nents of commu- nity hygiene	• Explain effects of poor com- munity hygiene • Discuss factors contri- buting to poor com- munity hygiene	• Discuss the im- portance of com- munity partici- pation in com- munity hygiene • Visit different com- munities	• Define sanitation • Discuss measures of refuse disposal • Clean toilets and latrines using pro- tective clothing	• Carry out research on com- munity hygiene
Disease Prevention **Life skills** • Self- aware- ness • Decision making • Problem solving	• Mention some of the diseases associa- ted with water and air • State the importa nce of rest and exercise	• Discuss the im- portance of venti- lation	• Explain dangers of using contami- nated items	• State causes of infec- tions	• Discuss diseases affecting different parts of the body • Explain the im- portance of rest and exercise- food handling and storage	• List disin- fectants used in toilets • Identify diseases caused by insects • Prepare a chart showing harmful insects hygieni- cally	• Discuss the life cycles of insects that cause diseases • Suggest ways of preven- ting them

Lesson plan developed in Zambia

The Zambian Teacher's Guide for the Integrated Water, Sanitation and Hygiene Education, and HIV/AIDS for Grades 1 to 7 [6] contains two lessons on the safe use of latrines for the students in Standard 2 (for students of 6 years old). The overall objectives to be achieved are: for knowledge, that children can state the correct use of the toilet/latrine, can tell how to wipe their bottoms correctly after using the toilet/latrine, and can give reasons why it is important to wash their hands after using the toilet/latrine; for attitudes, children will encourage each other to use the toilet/latrine correctly and show willingness to wash their hands after using the toilet/latrine; they will further be able to demonstrate the correct use of the toilet/latrine and the proper handwashing after using the toilet/latrine; socio-psychological skills (life skills) to be mastered are the ability to communicate to others about proper handwashing, make decisions about using the toilet/latrine properly and show awareness of the dangers of not using the toilet properly.

The guide suggests a number of activities to achieve these objectives in a playful manner. It recommends that the teachers monitor and evaluate the improved habits and correct use of toilets by pupils, e.g. through random interviews, observations and spot checks on toilets. For monitoring and reinforcing knowledge about personal hygiene the guide recommends a whispering game, for example in the teacher's ear, on how they should wipe their bottoms.

Lesson plan developed in Vietnam

During the national school sanitation and hygiene education workshop in Vietnam, the life-skills curriculum planners of the Ministry of Education and Training (MOET) developed several lesson plans for life skills-based hygiene education, drawing on their experiences with the life skills-based approach to HIV/AIDS prevention in school projects initiated in 1997. The curriculum planners and the teachers agreed that the approach could also be used for other subjects, for example in hygiene education. One result of an exercise in Vietnam that reflects how life skills-based education can be applied in the context of lesson plans for hygiene education is presented in table 9.

[6] Source Ministry of Education (1997). The integration of water, sanitation and hygiene education (WASHE) in the teaching of English, social studies, environmental sciences and mathematics : information and suggested activities. Grades 1-7. Lusaka, Zambia, ministry of Education

Table 9: Washing hands before eating - a role-play

Situation	Knowledge	Attitudes	(Life) Skills	Teaching methods
A girl and her sister are playing on the ground. Their mother comes back from the market and gives them cakes. The young sister wants to take the cake without washing her hands. If you were an older sister, what would you do?	Dirty hands can bring infectious disease	Give importance to washing hands before handling food	Ability to say no to offering of food if your hands are not clean	Role-playing and brain-storming

The recommended methods for the exercise in table 9 are brainstorming and role-playing. For the latter, the teacher selects the children to play the three roles. The rest of the class observes the play and observe the knowledge, attitudes and life skills-of the older and younger sister. After the play, the children discuss their observations in plenary and draw conclusions from it. The teacher then summarises the lessons learned.

Lesson plan developed in Burkina Faso

To start the development of life skills-based hygiene education materials for the UNICEF school sanitation and hygiene education programme in Burkina Faso, twenty or so participatory learning exercises were developed by the team that prepared the training. During the training these were evaluated by the participants, after which the participants used their new knowledge and skills to develop their lesson plans. The lesson plan presented in table 10 is one of those developed by the teachers during the training.

Table 10: Example of a lesson plan developed in Burkina Faso

Topic/title: HANDWASHING, Why, when and how?

Total time: 65 minutes

Starting position
Existing knowledge: Transmission routes of infection
Relevant aspects that can influence the lesson: Age of the children (8-11 years old)

Purpose of the lesson (objectives)
At the end of the lesson the student will:

Knowledge
The children:
- know the faecal-oral diseases and worm infections and their transmission and blocking of transmission by handwashing;
- know when handwashing is required, effective techniques of hand washing and linkage with socio-economic conditions.

Attitudes
The children:
- appreciate the importance of washing hands;
- are keen to pass on the knowledge to members of one's family;
- appreciate the poverty aspects of hand washing such as the fact that poor people might not be able buy soap for handwashing and will therefore have to use mud or ashes instead.

Life Skills
The children:
- are able to advocate to others to wash their hands (e.g. to a school vendor);
- are able to negotiate for the resources needed to wash hands effectively.

'Hands-on' Skills
The children:
- are able to demonstrate and explain effective techniques of handwashing.

Time (in minutes)	Activities	Organisation
10 min	Teacher asks three groups to prepare and perform a role-play, pantomime or plays in which they: (Group 1) act out what happens when an infection passes through the stool of a diseased person via the hands of that person or someone else, to an uninfected other person (Group 2) act out how hands are washed in different	Teacher divides the class in three groups (role-) plays

	(Group 3) act out when handwashing is important	
10 min	The groups prepare their plays (each group acts out one subject)	
20 min	The groups perform their plays	Materials: a basin, water, a kettle, soap, ashes, sand, a natural scrubbing sponge. A bucket, towel, plate, local fruit. Materials to show transmission, for example: dark-coloured sand
25 min	Evaluation of the plays (discussion): • Identification of the transmission risks and types of diseases transmitted and their symptoms and treatment • Identification of conditions and practices of handwashing in the school • Discussion of the implications of handwashing behaviour for the work of mothers and daughters, and responsibilities of fathers and sons • Discussion of the tasks of mothers, fathers and the students themselves in the promotion of handwashing • Ways in which students can do an inventory of handwashing materials and practices in their homes • Discussion of the nutrition consequences of diarrhoeal disease for children's weight, growth, physical and mental development, resistance against illness and school attendance	Discussion

Evaluation for the teacher:
After each lesson the teacher should try to answer the following questions:
- What went well?
- What could I do differently next time?
- Were the objectives achieved and why?

Learning from country experiments

As life skills-based hygiene education is a relatively young approach, several countries are experimenting with the planning and testing of different lessons plans. The examples presented above provide a good start for implementing life skills-based hygiene education and provide valuable information for further development. Some of the most critical challenges encountered are:

1. ensuring a balance of topics and sub-topics within the curriculum and lesson plans; are the most critical topics included and are they relevant to the local conditions and problems?
2. ensuring that the lesson plans address the most critical and common hygiene risks and diseases prevalent in the area;
3. ensuring a balance between knowledge, attitudes and skills objectives for each topic/sub-topic conforming to the age range of the children, with a special focus on the inclusion of practical life skills like 'demonstrate', 'show' and 'practise';
4. ensuring an increasing complexity for the lesson plans from grade one to eight matching the age range and capacities of the children;
5. ensuring the use of a large variety of participatory methods, each suitable for the subject that is addressed and the age range of the children;
6. ensuring a regular review and upgrade of lessons plans and curricula, according to the developments and changes that take place in the country, regions, towns and communities where the lessons are implemented.

Those starting with the development of a new curriculum or the revision of an existing curriculum may find it helpful to identify the most critical topics in the community and to define separate objectives for each topic for knowledge, attitudes and skills. This may help to ensure the right balance between both the content and the three learning elements of the lesson plans. A review of the full set of lesson plans may help to achieve increased complexity and sufficient variation in the knowledge, attitudes and skills over the full period of the primary school.

6. Implementation of life skills-based hygiene education in schools

The need for training

The implementation of hygiene education in school requires support at national/regional level. In many schools and countries, the curriculum currently does not give much attention to sanitation and hygiene. It is important to incorporate hygiene and sanitation in the curriculum and textbooks with a focus on practical exercises including evaluation systems. This will mean that in most educational programmes, the teaching aids and programmes on sanitation and hygiene have to be adapted or developed.

Schoolteachers need to be trained before they can implement life skills-based hygiene education. Often, teachers have little experience with participatory, child-centred teaching methods, as for example in Nicaragua (box 12). It takes time for teachers and children to get used to this new education methodology. However, good teachers already use their own creativity to make lessons interesting and practical. It is important to recognise these creative and hands-on learning skills of teaching staff so the same participatory and creative methods can be used during the training.

Box 12: Child-centred teaching methods in Nicaragua

In March 2001, during the national school sanitation and hygiene education workshop, the life-skills approach was introduced for the very first time in Nicaragua. Questions such as: "What do you remember from your own school days?' made the teachers realise that they did not remember that they had learned mathematics. What they did remember was teachers scolding them. This was the inducement for a discussion on the effectiveness of traditional learning methods and the need to introduce new methods. The teachers agreed on this need for change, which led them to complete a simple matrix on their perception of the situation of children with respect to their physical and emotional development, personal hygiene and personal behaviour.
The approach was very revealing for the participating teachers. Before the workshop, they only thought of disciplining children to keep them quiet and getting them to know things by heart. This exercise made them see that children themselves have quite different needs and that for their teaching to be effective, they have to address these children's needs of physical and emotional development, personal hygiene and personal behaviour, instead of just their own needs of discipline and knowledge transfer.

Training in life skills-based education also prepares the teachers to develop their own tools, techniques and materials and to use a variety of educational methods. During the training, teachers learn to use teaching methods that effectively influence various factors that contribute to transmission of water, sanitation and hygiene-related diseases in the community. Teachers learn to use methods that engage students and parents in the education process and that require their participation. Examples of such

methods, such as discussions, debates and role-plays have been given in chapter 4. Before applying the life skills approach, teachers should learn how and why they need to understand the local beliefs, values, attitudes, risk behaviours and prevalent diseases. Once the teacher is aware of this, s/he can adapt the lesson plans to the context and address the issues that are most relevant to the local conditions.

Training the teachers

Family outreach and the child-to-child approach

Outreach activities that use a life-skills education approach will increase the chances that students replicate the behavioural changes they have adopted in school in their home environment, and that behavioural changes brought home by them will be taken over by family members. These activities will also reach a significant proportion of those children, especially girls, who drop out of school at en early age or are denied the opportunity to attend formal education. Good school sanitation and hygiene education programmes therefore include strategies for reaching out-of-school children (Hooff 1998).

To make the link with home, teachers may encourage the children to share the information and skills they learned with their families, or to spread their ideas and messages within their communities. In cultures where parents have no time and/or are not used to playing with children, the teacher may encourage the children to share with a grandfather or mother. In Vietnam, for example, UNICEF has a programme – and booklet – that encourages grandparents to play with their grandchildren for a better development of the children. Also, through caring for younger brothers and sisters and playing with those children who have less opportunities to go to school, the children are able to influence/improve the health of others as well as themselves.

Possible activities for the outreach to families or the child-to-child approach are:

- putting up posters in the community or in households with hygiene messages that have been developed during hygiene lessons;
- setting up a school health club that takes up the tasks of organising activities in the community, such as a cleaning campaign;
- inviting the parents, brothers and sisters of the students for a role-play written and acted out by the children;
- involving the parents, not only those active in the Parent-Teacher Association, but also others, in the school sanitation and hygiene education activities such as the construction of new facilities or the operation and maintenance of existing facilities;
- giving the children homework or lessons that include survey work in their homes and the community, such as making a drawing of the way drinking water is stored in their homes, counting the number of latrines in the community, mapping the neighbourhood or making a community map with the different types of water and sanitation facilities, etc;
- reinforcing, during life skills-based hygiene education, the importance of using their knowledge and skills while caring for their younger sisters and brothers.

Children show at home what they have learnt in school.

Monitoring and evaluation

Monitoring and evaluation of the implementation

Once implemented, life skills-based hygiene education should be monitored to see the positive and negative changes. For monitoring there must be indicators that help to show the planning process and outcome of the programme. This process can be guided from above or it can be a self-motivated process.

To check the quality of the implementation of life skills-based education in the school, the district or regional education officer, the school's head teacher or the teacher can ask several questions, such as[7]:

Teacher training:
- Do teachers understand the new ideas and are they committed to implementing them?
- In teacher training, who are trained on hygiene: female teachers, male teachers or both?
- Does the content of teachers' training also cover gender and social equality aspects?
- Are they, at the end of the training, willing to set good hygiene examples in the school?

At the school:
- Is life skills-based hygiene education part of the school programme?
- Can life skills-based hygiene education be practised in the school; are facilities available and can they be used?
- Who is in charge of life skills-based hygiene education: female teachers, male teachers or both?
- Do the teachers set good hygiene and life skills examples in the school?
- Are other supportive activities such as setting up a school health club, organising and supervising hygiene work being organised?
- Who is in charge of this: female teachers, male teachers or both?
- Who is in charge of management tasks on sanitation and hygiene: male teachers, female teachers or both?
- Who does the cleaning work in classrooms, schoolyards, latrines: girl students, boy students, both or others? How equitably is the work divided?
- Have the teachers/schools/school health clubs set specific objectives on learning/practising good sanitation and hygiene? Are achievements monitored? What are the results? Is action taken when results are not up to expectations/standard? Do actions make a difference?

For the extension into school, home and community:
- Do methods and learning materials link learning in the classroom with life skills at home and in the community?

[7] Source: Some of the questions presented below orginate from a handout given to the participants of the life skills workshop organised by UNICEF in New York, 2001.

- Does the programme effectively aim to complement classroom teaching with regular activity around the school?
- Is learning in the school transferred through joint school/community activities or less formally through child-to-child activities?
- Are children involved in planning community activities rather than merely carrying out a programme entirely designed by adults?
- When activities are taken to the community and the children's homes, are culturally acceptable approaches being used?
- Who deals with the contacts of parents on hygiene: female teachers, male teachers or both? Whom do they contact: mothers, fathers or both?
- Who deals with the contacts with community leaders on water supply, sanitation and hygiene: teachers or also students? Female teachers/students, male teachers/students or both? Whom do they meet with: male leaders, female leaders or both?

Monitoring and evaluation of a life skills-based lesson

To check the quality of the life skills-based lesson plans, the teacher can ask several questions. Examples of these questions can be found below. Some of these questions can be used by teachers themselves and some of the questions might be more suitable for those who supervise the teachers at school level or at district level[8]. A real life skills-based lesson will meet all or most of the 'REAL' criteria:

For the content - the five Rs:
- Is the content relevant to the hygiene needs of the students? Does it address local risky practices and measures to prevent the most prevalent diseases?
- Does the content reflect the age and the interests of the students?
- Is the content realistic, given the human and materials resources available?
- Does the content have the right balance between knowledge, attitudes and skills, including life skills?
- Does the content recognise gender and poverty/social equity aspects?

For the use of the content - the three Es:
- Is the content effectively followed and thought out?
- Is the time available managed efficiently?
- Is there evidence of meeting changing needs and interests?

For the methodologies and approaches - the four As:
- Is there a range of approaches, methods and materials that are appropriate for their purposes?
- Is learning made attractive?
- Are students involved in active learning and thinking?
- Are all students involved and not just some of them?

[8] Source: The questions presented originate from a handout given to the participants of the life skills workshop organised by NUICEF in New York, 2001.

For the interest, attitudes and practices of the students - the four Ls:

- Do students like learning about and practising hygiene in their school?
- Do they try to spread learnings to others?
- Do students have leverage on others by promoting good and discouraging risky hygiene?
- Do they treat everyone likewise and fairly or do they, or teachers, pick on certain types of students such as those from poor families, younger or less popular children, girls?

Section 2 - Suggestions for the content for life skills-based hygiene education

Introduction to the content of life skills-based hygiene education

Education needs goals to work towards. The goals used in life skills-based hygiene education can be divided in cognitive goals (knowledge goals), goals that handle attitude and self-image and goals that deal with the learning of (life) skills. The challenge is to implement and integrate the achievement of goals related to life skills within the cognitive and attitude goals. Life skills such as psycho-social skills and socio-emotional skills can not easily be taught as lessons on their own and must therefore be integrated in lessons on other subjects.

The overview presented in this section of the document gives examples of how the implementation of the three goals could take place in the context of life skills-based hygiene education. Depending on the local situation, the overview can be adapted and improved. In working to achieve the goals, child friendliness should not be forgotten! By using different methods such as role-plays, games, etc., the goals can be achieved in a child friendly way.

We have seen that life skills-based hygiene education has three components: knowledge, attitude and skills. It is very important to adapt the knowledge to the local situation. For example, if skin and eye problems are not common in the area, the children do not need to learn as much about them as children who live in areas where skin and eye problems are very common.

The attitudes children need to learn are directly associated with the type of hygiene knowledge that they acquire. For example, children need to know the risks of solid waste. The associated attitude is that the children are willing to see the risks of solid waste – meaning that if children know what the risk is but are not able to grasp the importance of it, the knowledge is not useful.

The skills in the overview include hands-on skills or practical skills as well as life skills. Hands-on skills include, for example, being able to clean one's fingernails or being able to clean a latrine properly. Life skills include active listening, cooperation and positive thinking.

For the purpose of this document, the themes that could be included in life skills-based hygiene education have been divided into four subject areas, described in chapter 4 of section 1:

- Theme 1: Water, sanitation and waste in the community
- Theme 2: Personal and food hygiene
- Theme 3: Water and sanitation-related diseases
- Theme 4: Water, sanitation and hygiene facilities

For each theme, the possible content has been worked out based on experiences gathered in workshops during which life skills-based hygiene education materials have been developed, tested and used. Although the content may seem quite detailed, there is no intention to be exhaustive and it is therefore essential to check its relevance in the local situation and be sure that it covers all the relevant issues. To check whether the suggested content is relevant and applicable in the local situation, one can ask the following questions, amongst others:

- Is the content relevant to the hygiene needs of the students?
- Is the content related to the age and the interests of the students?
- Is the content realistic, given the human and material resources and time available?
- Is the sequence of the content logical and well thought through?
- Are messages reinforced, where possible, across the curriculum?

The overview also contains some examples of methods and activities that can be used to achieve the set goals. The suggested methods and activities are just examples. Like the content, these methods will need to be adapted to the local situation as well as to the experience of the teachers who use the methods and activities. Note too, that the suggested methods and activities are not exhaustive for achieving all the set goals and that many methods and activities described may be used in an adapted form to cover other parts of the theme as well.

The suggested methods are not only useful for hygiene education but can also be used in other classes. Role-plays can, for example, be used to learn about the history of the country; and discussions and card games can be used to learn new words during a language class.

Theme: Water, sanitation and waste in the community

This theme covers the different types of water sources, the transport, handling and storage of drinking water and different types of waste (including human excreta and rubbish) in school, homes and the community and how they differ in terms of cleanliness and risks to health. The lessons can build upon local knowledge but should also address locally incorrect or incomplete perceptions. Many cultures distinguish, for example, between cleanliness of water from different sources, with usually rain and spring water recognised to be cleanest. Some common perceptions are not correct, e.g. the belief that infants' excreta are harmless.

The theme can be subdivided as follows:

- Water sources in the school compound and the community
- Water transport, storage and handling at home and in school
- Waste materials, including human excreta and rubbish at home, in the school compound and in the community
- Water quality and purification

Water sources in the school compound and the community			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know all water sources in the school compound and in the community and for that purpose they are used • Know which sources are clean/safe for drinking and which sources are dirty • Know that it is important to use clean and safe water sources for drinking and cooking purposes • Can mention two ways/practices through which water sources can get dirty/contaminated by people and animals • Can mention the most relevant ways through which water sources can become naturally contaminated (arsenic, fluoride, chemical waste, etc.) • Know the most important effects of these contaminations for people's health • Know two measures for preventing two different water sources from becoming contaminated by people and animals	**6-9-year-olds:** • Are interested in finding out whether a water source is clean/ safe or dirty • Are confident to use water from safe sources for drinking and cooking purposes • Are motivated to prevent the spread of diseases by avoiding some specific behaviours that contaminate water sources • Where there are natural contaminated water sources, are motivated to prevent the use of these sources • Are aware of the consequences of contamination for people's health • Appreciate that different sources should be used for different purposes • Are open-minded towards changing unhealthy behaviour • Find it worthwhile to encourage others to use water from safe sources • Are willing to be involved in keeping safe sources free from contamination	**6-9-year-olds:** • Are able to name and distinguish all water sources in the school comp-und and community and explain for which purp-ose they are used • Are able to explain which sources are clean/ safe and which sources are dirty • Are able to decide to use clean and safe water sources for drinking and cooking • Are able to effectively communicate the importance of getting water from safe water sources for drinking and cooking • Can mention and explain ways/practices that cause water sources to become contaminated • Are able to prevent different water sources from becoming contaminated • Are able to prevent themselves from getting ill through the use of dirty water • Are able to show and express their awareness of risks associated with the use of unsafe water sources	**6-9-year-olds:** • Taking safe/dirty water from home to school and ask to give presentations explaining which source the water comes and for which purposes the water is used • Drawings different water sources followed by a vote: Who uses water for what? • Brainstorm session in groups about how to prevent contamination of sources • Drawing of daily use of water, followed by discussion • Singing songs about water and the contamination of water • Practising a number of measures which prevent water from becoming contaminated, such as covering the drinking water, cleaning the area around the source, etc.

10-12-year-olds: • Know the difference between safe and dirty sources in the school compound and the com-munity • Know the difference between natural pollution of water sources and the environment and pollution by people and animals • Know all the ways/practices through which water sources can become contaminated by people and animals as well as naturally (arsenic, fluoride, chemical waste) • Know how to prevent the contamination of the different water sources in the school compound and the community • Know the possible consequences of broken systems for water quality • Know why it is important to use clean and safe water sources for drinking and cooking, bathing and washing • Know the effects on people's health of using unsafe water for different activities such as drinking, cooking and bathing • Know four diseases that can be associated with the use of or play-ing in unsafe/ dirty water	**10-12-year-olds:** • Are aware of the different ways through which they can contribute to the contamination of the different water sources • Are willing to change their behaviour in order to prevent contamination of the different water sources in the school compound and the community • Appreciate the importance of well-functioning systems for providing good water quality and dislike misuse of the facilities • Find it important to use clean and safe water sources for different purposes • Are aware that unsafe/dirty water can cause diseases and are willing to communicate this to others • Appreciate the importance of interchanging gender roles in taking preventive measures	**10-12-year-olds:** • Are able to distinguish between safe and dirty sources in the school compound and community • Are able to recognise and distinguish between natural pollution of water sources and the environment and pollution by people and animals • Are able to explain all practices through which water sources can become contaminated • Are able to take measures to prevent contamination of the different water sources in the school compound and community • Are able to decide to use only safe water for drinking, cooking and bathing activities • Are able to negotiate for the use of safe water for drinking, cooking and bathing activities by their family • Are able to mention and explain four diseases that can be associated with the use of or playing in unsafe/dirty water	**10-12-year-olds:** • Putting on plays for the parents/community in which the children communicate the pre-ventive measures and encourage the people to help to prevent contamination • Group work: Brainstorming with each other about clean and dirty sources and the consequences of the use of dirty water; brainstorming about what they can do to protect the sources to keep the water safe; presenting their findings to each other • Excursion to water sources in the school compound and community; writing an essay about this excursion • Investigating which water source in the community is used for which purpose and finding out the reasons

Water transport, storage and handling at home and in school			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know various ways that water is transported in community • Know two ways to transport water safely • Know that it is important to store and handle drinking water safely • Know how to store and handle water safely in their house and school • Know which vendors around the school handle water safely	**6-9-year-olds:** • Are aware there are different ways to transport water • Find it important to transport water safely • Are concerned when they see others transporting water in an unsafe way • Appreciate the importance of storing and handling drinking water safely • Are willing to store and handle water safely • Are keen to drink safely handled water	**6-9-year-olds:** • Are able to explain two different ways to transport water • Are able to mention two different ways to transport water safely and can explain why these ways are safe • Understand that gender roles in the context of water transport are interchangeable and that both girls and boys have a responsibility • Are able to store and handle the water in their house and school safely • Are able to explain how drinking water can be stored safely • Are able to refuse to buy drinks and food from vendors who do not handle water and food safely	**6-9-year-olds:** • Learning a song about two different ways to transport water safely • Role-play: Acting out different safe ways to transport water • Telling a story about water transport that includes gender aspects • Demonstration: How to store and handle drinking water safely • Learning a song about safe ways to store and handle water • Daily practice and supervision in the class

10-12-year-olds: • Know the difference between safe and unsafe water transport and know why certain ways are not safe • Know the risks of unsafe water transport • Know how these risks can be prevented – know how to transport water safely • Know the importance of safe water transport for the health of their parents, brothers, sisters and other community members • Know the importance to people's health of safe water storage and handling for drinking and cooking purposes in the house and the school • Know the difference between safe and unsafe water storage and water handling in the house, the school and the community • Know different measures that can be taken to ensure safe storage and handling of water in the house, the school and the community • Know which vendors around the school handle water safely	**10-12-year-olds:** • Are motivated to understand the difference between safe and unsafe water transport • Are aware of the consequences of safe and unsafe water transport • Are willing and motivated to transport water safely • Are willing to advocate the importance of safe water transport to others • Are aware of the local practices and beliefs that might exist about water transport • Are aware of the linkage between safe water storage and handling and people's health • Are aware of safe and unsafe ways to store and handle water • Are willing to use different measures to ensure safe storage and handling of water	**10-12-year-olds:** • Are able to mention and explain the difference between safe and unsafe water transport • Are able to prevent unsafe water transport • Are able to transport water safely • Are able to explain the importance of safe water transport to others • Are able to encourage others to prevent unsafe water transport and transport water safely without creating conflict • Are able to explain the importance for people's health of safe water storage and handling for drinking and cooking purposes in the house and school environment • Are able to store and handle drinking and cooking water safely • Are able to explain the difference between safe and unsafe ways water handling • Are able to avoid unsafe storage and handling of water • Are able to take different measures to ensure safe storage and handling of water in the house, school and community • Are able to refuse and convince others not to buy drinks and food from vendors who do not handle water and food safely	**10-12-year-olds:** • Writing an essay on safe water transport • In groups: Creating a slogan which will tell why and how to transport water in a safe way • Role-plays: How would you encourage others to transport water in a safe way? • Continuum/rope voting to discuss the responsibilities of the different family members to prevent unsafe water transport • Writing an essay on safe ways to store and handle water • Group discussion: Safe and unsafe ways to store water: • Writing down how water is stored and handled in their home; discussing this in class; children can give each other alternatives on how to store and handle water more safely at home • Game: "What would you do?" The teacher makes a list of questions, all starting with 'What would you do if…' For example: What would you do if you are not sure if the water you want to drink is clean? The children write this down. In the end, all questions are discussed in plenary.

Waste materials, including human excreta and rubbish at home, in the school compound and in the community			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know that an environment (home, school and community) where waste is disposed of safely is important for their health • Can mention three health risks related to waste materials (human excreta and rubbish) in unspecified places in the household, school and community • Know how human excreta can be disposed of safely • Know what type of waste materials, apart from human excreta, are harmful for children at home, school and in the community • Know the safest practices for waste management related to the specific conditions at home, school and the community • Know how to assist the teachers in keeping the school environment free of waste • Know how to assist their parents and older brothers and sisters in keeping the household environment free of solid and liquid waste	**6-9-year-olds:** • Are aware that an environment where waste materials (e.g. human excreta and rubbish) are disposed of safely is important for their health • Dislike to see human excreta in unspecified places at home, school or in the community • Dislike to see rubbish in unspecified places at home, in school or in the community • Appreciate a clean environment at home, school and in the community • Are motivated to develop and keep the habit to dispose of human excreta and other waste safely • Are aware of their role in helping others to keep the environment free of human excreta and rubbish • Are willing to keep and carry out their waste to places where it can be disposed of safely (and not throw it anywhere)	**6-9-year-olds:** • Are able to make the link between a waste free environment and their own health • Are able to mention and explain health risks related to human excreta in unspecified places • Are able to mention and explain health risks related to rubbish in unspecified places • Are able to dispose of human excreta and rubbish correctly in a safe way • Are able to make decisions on keeping the environment free of waste materials • Are able to assist others in keeping the school, household, and community environment free of waste materials • Are able to decide whether a certain place is safe to dispose of waste materials or not • Have the skills to assist the teachers or cleaners to keep the school environment free of waste materials	**6-9-year-olds:** • Broken telephone/Chinese whispers: Children are sitting in a circle. The teacher whispers a statement to one child. The children whisper the statement in each other's ears. The last child in the circle has to say the statement aloud. • Storytelling: The teacher tells a story that includes the risks of unsafe solid waste disposal, the consequences for the health of the community members, and how different community members have helped to change the situation • Schedule/practice of the skills: Each child has to help once a week to keep the school environment clean and free of solid and liquid waste • Daily cleaning of the classroom • Messages in school on good waste management • Mapping of safe place to dispose of rubbish at home, school and in the community

10-12-year-olds: • Know the relation between the safe disposal of waste materials (rubbish as well as human excreta) at home, school and the health (risks) of the people • Know the risks of human excreta at unspecified places at home, in the school compound and in the community • Know the risks of using untreated or partially treated excreta as fertilisers • Know the risks of the disposal of different kind of rubbish (e.g. glass, organic materials, waste water) at unspecified places at home, in the school compound and in the community • Know different ways that waste materials can be disposed of safely (depending on the type of waste and the amount) – burning, recycling, composting at home, in the school compound and in the community	**10-12-year-olds:** • Believe and accept there is a relation between the (un)safe disposal of waste materials (including human excreta) at home, school and the community and health (risks) • Are willing to see and understand the risks of the disposal of waste materials at unspecified places • Are aware of the risks of using untreated or partially treated excreta as fertilisers • Find it important that waste materials are disposed of safely and when possible are recycled • Are aware of the importance of good drainage • Find it important to contribute to good drainage in the school area • Are willing to see the risks of poor drainage • Appreciate different ways to drain liquids • Are motivated to develop and keep good behaviour on safe disposal of waste materials	**10-12-year-olds:** • Are able to explain why safe disposal of waste materials, including human excreta at home, at school and in the community is important for their own and others' health • Are able to explain the risks of disposal of waste materials at unspecified places • Are able to explain the risks of using untreated or partially treated excreta as fertilisers • Are able to convince others not to use untreated or partially treated excreta as fertilisers • Are able to explain different ways to dispose of various waste materials safely at home, in the school compound and in the community • Are able to explain how to burn, recycle and compost waste safely • Are able to assist others to implement these measures • Are able to explain the risks of poor drainage at home, in the school compound and in the community	**10-12-year-olds:** • Writing an essay on the waste materials (e.g. concerning conditions in the community and the health risks, safe disposal, recycling, etc.) • Analyse in class: What are the risks of waste materials in the environment at home, in the school compound, for people's health? • Group work: Class is divided in three groups, each group has to find information and give a presentation on different ways to dispose of different waste materials safely • Pantomime: Children depict a subject – kind of waste material, e.g. glass, organic waste, excreta, etc.; the rest of the class tries to guess what the child is depicting • Assisting the teachers in making the schedules for the cleaning of the school environment • Setting up school health club

• Know the risks related to poor drainage at home, in the school compound and in the community • Know different ways that liquids can be drained in the school area • Know how to organise, together with the teacher, a campaign to pick up waste materials at community level	• Appreciate a clean environment • Are willing to help others in keeping the environment free of waste materials • Are willing and motivated to sweep or pick up rubbish whenever they see it • Have developed the intention to participate in hygiene activities	• Are able to drain liquids in the school area safely and correctly • Are able to assist others in keeping the school environment clean • Are able to start and organise, together with the teacher, a campaign to pick up waste materials at community level	• Assigning or asking for volunteers responsible to assist the teachers during the breaks in supervising the other children regarding the disposal of their waste materials (and possible other hygiene-related behaviours) • Mapping of places where waste materials are disposed of in the community, indicating which are safe and which are not safe for the health of others. This can be expanded by asking children to indicate the changes that need to take place in the community to ensure that most harmful waste materials are disposed of safely

Water quality and purification			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
10-12-year-olds: • Know how to identify which water sources will need to be purified • Know the options of purification at household level and at community level (or at the source and at the point of consumption) • Know three ways to purify water (boiling, filtering, use of chemicals or SODIS (solar disinfection) – depending on what is suitable in the area) • Know the advantages and disadvantages of the various purification methods • Know how a water filter can be built • Know what is required to always drink purified water (products, price, effort) • Know what purification techniques are being used at home, at school and in the community	**10-12-year-olds:** • Appreciate the importance of water purification • Are aware when water needs to be purified and understand different ways to do it • Are willing to understand the difference between the various ways to purify water • Are willing to (help) build a water filter • Appreciate that both boys and girls are able to learn how to build a water filter • Are keen to drink pure or purified water only, even if the taste changes slightly	**10-12-year-olds:** • Are able to explain the importance of purifying water • Are able to identify which water sources need to be purified • Are able to purify water in three different ways • Are able to choose the most appropriate way to purify water considering the different social and economic aspects • Are able to distinguish the advantages and disadvantages of the various purification methods • Are able to (help) built a water filter • Are able to follow the regulations of building a water filter	**10-12-year-olds:** • Continuum: The teacher makes a statement; for example: We do not need to purify water from source X. A line is drawn on the ground. Children who agree stand on one end of the line, children who disagree on the other end. The line is 'broken' in two. Children who agree can discuss why they agree with the children who disagree. At the end of the discussion, children have to choose again if they agree or disagree. They can change their first opinion. • Guest speaker: The teacher invites a guest speaker who explains and demonstrates how to build a water filter. Children can ask questions and get a chance to practice. • Practice of SODIS • Cartoon, ask children to make a cartoon about water purification • Household visits/Homework assignment to assess conditions at home • Excursion to community water purification station

Theme: Personal and food hygiene

This theme includes personal and food hygiene in school, homes and community, covering conditions and practices that are either positive or negative and the reasons, ways and means to change the latter. It includes topics on preparing food, cleaning food and eating it. It also covers personal hygiene behaviours and practices such as washing hands and face, combing hair, bathing, etc. The theme can be subdivided as follows:

- Personal hygiene
- Nutrition - Food hygiene, eating patterns, water availability

Personal hygiene			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know that it is important to wash their hands after defecation, before preparing food and eating and after helping their smaller brothers and sisters • Know how to wash their hands correctly, with soap, ash or only water • Know that by washing their hands at critical moments and correctly they can prevent becoming sick or making others sick • Know that it is important to wash their face and those of their little brothers and sisters and to keep the eyes clean • Know that it is important to keep your body in a good and healthy condition and so to: bathe and wash your hair frequently; clean your teeth at least once a day; clean your fingernails frequently; • Know how each of these practices is done properly • Know that it is best to defecate in a latrine and to protect others from your excreta	**6-9-year-olds:** • Are convinced that they need to wash their hands after defecation, before preparing food and eating and after helping their smaller brothers and sisters • Are willing to wash their hands correctly at critical times • Are aware of the importance of washing hands and face/eyes correctly • Appreciate the correct use of items that are used for hand washing • Appreciate the link between becoming sick or making others sick and not washing hands correctly at critical moments • Are interested to see the links between a good and healthy condition and frequently bathing; frequently washing their hair; cleaning teeth at least once a day; frequently cleaning fingernails • Feel responsible for the cleanliness of their own body, hair, teeth and nails • Appreciate and like to keep their hands clean	**6-9-year-olds:** • Are able to wash their hands correctly after defecation, before preparing food and eating and after helping their smaller brothers and sisters • Are able to wash their hands correctly with soap, ash or only water • Are able to demonstrate to others how and when to wash hands and face/eyes correctly and help their little brothers and sisters to do so as well • Are able to explain the importance of washing their hands correctly • Are able to explain the links between washing their hands correctly at critical moments and avoiding getting sick or making others sick • Are able to frequently bathe, wash their hair, clean their teeth and fingernails and wash their clothes • Are able to communicate effectively to others the importance of handwashing at critical times	**6-9-year-olds:** • Singing songs about when to wash your hands, how to do it and why • Demonstrations of washing hands • Story. In groups children have to develop a story on the relation between not washing hands at critical moments and getting sick or making others sick • Quiz: The teacher is asks questions on when, how and why to bathe, wash hair, clean teeth, etc.

10-12-year-olds: • Know how to take care of their body concerning water and sanitation-related hygiene risks • Know why in particular washing hands and face is important • Know how to take care of younger siblings concerning water and sanitation-related hygiene risks • Know the different health and social reasons why it is important to: bathe and wash your hair frequently; clean teeth at least once a day; clean your fingernails frequently; and wash clothes frequently • Know the difference in the need for personal hygiene between boys and girls • Know the importance of personal hygiene for people with AIDS or who are HIV positive	**10-12-year-olds:** • Are willing and do like to take care of their body to protect them against water, sanitation and hygiene-related risks/diseases • Are willing to spend extra time to wash their hands and face correctly and at critical times • Are willing, motivated and find it important to take care of younger siblings concerning water and sanitation-related hygiene risks • Are aware of health and social reasons why it is important to: bath and wash your hair frequently; clean your teeth at least once a day; clean your fingernails frequently; and wash clothes frequently • Are aware of the difference in needs and importance for personal hygiene between boys and girls, especially related to the private parts	**10-12-year-olds:** • Are able to wash their hands and face correctly and at critical times • Are able to take care of their body • • Are able to explain the relation between water and sanitation-related risks and good body hygiene • Are able to take care of younger siblings concerning water and sanitation-related hygiene risks • Are able to explain the different reasons to frequently bathe, wash hair, clean teeth and fingernails and wash clothes • Are able to demonstrate to others how to wash hair, clean teeth and fingernails and wash clothes properly • Are able to communicate to others about the importance of keeping one's body clean and hygienic • Are able to understand and identify the differences between	**10-12-year-olds:** • Presentations: In groups, children have to present different risks of bad body hygiene to the rest of the class • Children teach the younger children in school the importance of good body hygiene • Writing an essay on personal hygiene • Developing a list of things one needs to do when cleaning hair/teeth/nails, together with the children • In groups of two, children can demonstrate what to do when cleaning hair/teeth/nails. The children observe each other and note what the other one is doing wrong/right according to the list • Discussion on the various social/economic reasons why people might not frequently clean their bodies

	• Appreciate that certain people might face social and economic constraints for cleaning their body frequently and do not discriminate against those who face these difficulties • Want to give extra care to people with AIDS or who are HIV positive to keep their bodies clean	people and how these relate to their possibilities of keeping themselves clean • Are able to assist people with AIDS or who are HIV positive to keep their bodies clean without risking infection	• Discussion with nurse or doctor on the consequences of HIV/AIDS and the relation between the health of infected people and the dangers of unhygienic behaviours and poor personal hygiene

Nutrition - Food hygiene, eating patterns, water availability			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know that diseases may be started or passed on by eating raw (uncooked) food, such as fruit, milk, meat and vegetables • Know that food prepared and/or eaten with dirty (un- or incorrectly washed) hands, can start or pass on diseases • Know how to handle food safely • Know some of the most risky practices when handling food • Know where they can buy food and drinks that are handled safely (many children eat snacks from vendors)	**6-9-year-olds:** • Are willing to avoid eating raw (uncooked) food • Are willing to prevent starting or passing on diseases • Are willing to wash their hands correctly before eating • Are willing to handle food safely • Are aware of the most risky practices in food handling • Appreciate that some family members are more involved in food preparation than others but might face difficulties, because of multiple tasks, to always wash their hands when needed – such as mothers taking care of small babies while cooking food	**6-9-year-olds:** • Are able to explain how diseases may be started or passed on by eating raw (uncooked) food • Are able to list types of food that should be cooked • Are able to prepare and eat food with clean hands to prevent diseases • Are able to explain how to handle food safely • Are able to avoid the most risky practices in food handling • Are able to identify healthy and more risky food handlers at school and in the community	**6-9-year-olds:** • Play: Children perform a play in which they explain how raw/uncooked food can start diseases and how to prevent this The parents are invited to this play • Making drawings of food handling followed by a discussion on which drawing represents good food handling and which drawing represents bad food handling

0-12-year-olds: • Know that specific groups are more at risk than others from eating unsafe food – such as small children or people infected with AIDS • Know the roles of different actors in starting or spreading diseases related to lack of food hygiene • Know the most risky practices in food handling • Know what can be done to avoid eating contaminated food • Know various diseases that are related to poor food hygiene • Know that storage of food may render it unsafe to eat later • Know how to make food safe to eat • Know different symptoms of food deprivation • Know what consequences food-related diseases have, for themselves and others • Know the needs/importance of a well balanced food package,	**10-12-year-olds:** • Are aware that specific groups are more at risk than others from eating unsafe food – such as people infected with AIDS • Are aware there are different actors that can start or spread diseases that are related to lack of hygiene • Are willing to take precautions to avoid eating contaminated food • Are willing to make food safe before eating • Are aware of food deprivation • Are aware of the consequences of food-related diseases • Find it important to eat a well-balanced food package • Are aware of the consequences of food deprivation and find it important to prevent this • Are careful when buying their food from food vendors	**10-12-year-olds:** • Are able to explain why and what specific groups are more at risk than others from eating unsafe food – such as people infected with AIDS • Are able to explain which different actors can start or spread diseases related to a lack of food hygiene • Are able to avoid the most risky practices • Are able to avoid eating contaminated food • Understand the link between various diseases and poor food hygiene • Are able to avoid storing food unsafely • Are able to make food safe to eat • Are able to recognise the signs of food deprivation • Are able to define what minimum cooking time and maximum sto-rage times are for different foods	**10-12-year-olds:** • Open discussion in small groups: Each child writes a card with one good and one bad practice according to their own experiences - in case of high prevalence of AIDS, special attention has to be given to this subject • Children take food from home (if possible) and discuss what food is safe, what food needs to be cooked, how long it can be stored, etc. • Concentric circles: The class is divided into two equal groups. One group stands in a circle facing out and one group stands in a circle facing in, so that everyone is facing a partner. The class is asked a ques-tion about food hygiene, which the students discuss in pairs. After a few minutes the outer circle rotates to the left, so that each student is facing someone new. The process is

especially for those infected with HIV/Aids • Know the needs for food hygiene • Know that although food from food vendors might look nice, it might not be hygienic		• Are able to explain the consequences of food-related diseases, for themselves and others • Are able to create a well balanced food package • Are able to meet the needs of food hygiene • Are able to understand that certain families may face more difficulties eating a balanced diet than others	repeated, with a new question about the subject. In the end, the teacher discusses the questions and difficulties during the exercise in plenary. • Observations on the food hygiene of food vendors, followed by a discussion on what can be done, by themselves, by the food vendors, etc.

Theme: Water and sanitation-related diseases

This theme includes water and sanitation-related diseases that have an impact on health. Incidence, transmission and prevention of the most critical water, sanitation and hygiene-related diseases in the local environment need to be addressed, including diarrhoea, skin and eye infections, worm infestations or other locally specific diseases as result of high levels of arsenic and fluoride in drinking water. The theme can be subdivided as follows:
Incidence and transmission of diseases in the local environment

- Diarrhoea
- Skin and eye diseases
- Worm and lice infestation
- Area specific diseases, e.g. related to arsenic and fluoride pollution
- Malaria

Incidence and transmission of diseases in the local environment			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know what disease/illness is • Know how to see whether they or their family members are sick • Know two diseases most prevalent and most serious in their community • Know two diseases which are related to poor water, sanitation and hygiene conditions • Have a basic knowledge of how these diseases are transmitted and which preventive measures can be taken	**6-9-year-olds:** • Accept that everybody can get sick • Are aware of the most prevalent and serious diseases in their community • Are aware of diseases that are related to poor water, sanitation and hygiene conditions • Are willing to take preventive measures to avoid transmitting water, sanitation and hygiene-related diseases • Are willing to think critically about ways of transmission and prevention • Are aware that social/economic differences may have an impact on the prevalence of water, sanitation and hygiene-related diseases	**6-9-year-olds:** • Are able to define disease/illness • Are able to see when someone in their family is sick • Are able to describe two diseases most prevalent and most serious in their community • Are able to mention two diseases related to poor water, sanitation and hygiene conditions • Are able to ex-plain how these diseases may be transmitted • Are able to explain which preventive measures can be taken to prevent the transmission of diseases • Are able to apply the most critical hygienic behaviours	**6-9-year-olds:** • Inventory (on blackboard) of what diseases children know, with division into disease symptoms and (local) names of diseases that the children give • Discussion of how you may get each disease • Class conversation: Children can tell what happened when they were sick, how they felt, etc. Children can make sounds with the stories: for example, when they have a fever (in the story) all children put their hands on their foreheads. When they are better, all children clap their hands.

10-12-year-olds: • Have knowledge about the relation between water, sanitation and hygiene-related diseases and gender, age and wealth differences • Know the most critical water and sanitation-related diseases in their family/community • Know the four categories for water, sanitation and hygiene-related diseases • Know which diseases are related to poor water, sanitation and hygiene conditions • Know the transmission routes of the four most important water and sanitation-related diseases • Know different examples of diseases in the four categories and can explain how to prevent them • Know the links between unhygienic behaviour and health • Know that hygiene attitudes and practices are related to environmental, social and hygiene conditions and constraints – for example in the risks of skin and eye diseases in dry areas	**10-12-year-olds:** • Are willing to see the relation be-tween water, sanitation and hygiene-related diseases and gender, age and wealth differences • Are aware of the transmission routes of water and sanitation-related diseases • Find it important to take actions at home, at school and in their community to prevent water and sanitation-related diseases • Are aware of the links between unhygienic behaviour and health • Are aware of the links between hygiene attitudes and practices and environmental, social and hygiene conditions and constraints	**10-12-year-olds:** • Are able to see and explain the relation between water, sanitation and hygiene-related diseases and gender, age and wealth differences • Are able to mention the four categories for water, sanitation and hygiene-related diseases • Are able to give different examples of diseases in these four categories • Are able to explain which diseases are related to poor water, sanitation and hygiene conditions • Are able to describe the transmission routes of the three most important water and sanitation-related diseases in their environment • Are able to take the most critical actions at home and at school to prevent themselves and others from the most common diseases in the community • Are able to explain the relations between behaviour and health • Are able to explain how hygiene attitudes and practices are related to environmental, social and hygiene conditions and constraints	**10–12-year-olds:** • Focused discussion to find out children's perception of diseases (what is being ill; how do you fall ill; which people are ill most often in their own experience - age, sex, welfare) • Quiz on knowledge: Teacher makes statements on this subject. If the children agree, they run to one end of the class, if they disagree they run to the other end. For each time they answer correctly they get one point. In the end the child with the most points has won. • Discussion on the hygiene attitudes, age and wealth differences between people and the impact of these differences on their behaviour • Invitation of a nurse or doctor to give a lecture on the special needs of people who are HIV positive with regard to the prevention of water, sanitation and hygiene-related diseases

Diarrhoea			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know what diarrhoea is (frequency of loose stool) • Know how diarrhoea is transmitted • Know where one is at risk and what each actor - self, schoolmates, mothers, fathers, brothers and sisters, teachers - may do to prevent diarrhoea from spreading • Know that all stools are dangerous, even those of babies and infants • Know the seriousness of diarrhoeas (effect of dehydration) • Know how to recognise signs of dehydration and what may be done • Know about ORS/ORT	**6-9-year-olds:** • Are aware of the transmission routes of diarrhoea • Are aware that all stools are dangerous • Are willing to wash hands extra carefully when having diarrhoea or when a family member has diarrhoea • Are willing to see the seriousness of diarrhoea • Are aware of the danger of dehydration • Are willing to take actions to prevent dehydration in themselves by drinking regularly and in others by providing them liquids correctly • Feel responsible to take action to prevent diarrhoea for self and others	**6-9-year-olds:** • Are able to define diarrhoea • Are able to describe the transmission routes of diarrhoea • Are able to avoid contamination with diarrhoea • Are able to explain to others how to prevent diarrhoea • Are able to prevent the transmission of diarrhoea • Are able to explain why all stools are dangerous, even babies' and infants' • Are able to explain the seriousness of diarrhoea to others • Are able to comprehend the consequences of diarrhoea • Are able to recognise dehydration by self and others • Are able to prevent dehydration • Are able to prepare ORT solutions and are able to prepare alternative solutions if ORT is not available • Are able to explain when and how to give ORT-solutions and to whom and why	**6-9-year-olds:** • Singing songs on diarrhoea: What is it, how is it transmitted and how is it prevented • Role-plays: Children act out the consequences of diarrhoea and dehydration and what can be done about them. After the play the children can discuss what was correct and what could be better. • Making flash cards presenting the knowledge gained • Demonstration and practice of preparing ORT, followed by a demonstration on when and how it should be used

Skin and eye diseases			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know the importance of regular washing and bathing to prevent eye and skin diseases • Know how to prevent skin and eye problems • Know how to identify the start of skin and eye problems in themselves and their family members • Know what to do when skin and eye diseases start and when/where to seek help	**6-9-year-olds:** • Appreciate the actions that can be taken to prevent skin and eye problems • Are willing to take actions to prevent and treat skin and eye diseases for themselves and others • Dislike it when they are not able to take preventive measures and are motivated to change this situation	**6-9-year-olds:** • Are able to take precautions to prevent skin and eye problems • Are able to recognise skin and eye problems in themselves and in others • Are able to take actions to treat skin and eye diseases	**6-9-year-olds:** • Face washing competitions with 1 l. water with children (and parents) • Making drawings of how to prevent skin and eye problems • Storytelling: The teacher can tell a story about skin and eye diseases and the consequences

10-12-year-olds: • Know how and why regular washing and bathing can prevent eye and skin problems • Know how to prevent skin and eye diseases within their household • Know the social consequences of eye and skin diseases and the impact for women and men (75% of people blinded due to trachoma are women) • Know that hygiene attitudes and practices are related to environmental, social and hygiene conditions and constraints – for example in the risks of skin and eye diseases in dry areas • Know what to do when skin and eye diseases start and when/where to seek help	**10-12-year-olds:** • Appreciate regular washing and bathing as a means to prevent skin and eye problems • Are aware of the social consequences of skin and eye diseases and accept that they should not discriminate against people who suffer from these diseases • Recognise that men and women, boys and girls may be at different risks • Are aware of the links between practices and environmental, social and hygiene conditions and constraints • Are willing to assist blind people in the community	**10-12-year-olds:** • Are able to explain how and why regular washing and bathing can prevent eye and skin problems • Are able to take measures to prevent skin and eye diseases within their homes • Are able to explain the social consequences of skin and eye diseases to others and are able to encourage others to prevent these diseases • Are able to help reduce the risk of transmission at home • Are able to explain that hygiene attitude and practices are related to environmental, social and hygiene conditions and constraints • Are able to explain why skin and eye problems are more common in dry areas	**10-12-year-olds:** • Analysing washing habits and gender and class relationships (who collects how much water; who helps; practices and attitudes towards use and wastage of water in water-scarce environments; availability and use of soap and its alternatives) • Writing an essay on why skin and eye problems are more common in dry areas • Within the school the teacher must make sure that those children with skin and eye diseases are not discriminated against. When discrimination occurs the teachers must organise special activities in their class to pay attention to the issue.

Worm and lice infestations			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know what a lice or worm infestation is • Know two of the most critical worm infestations (hookworm, whipworm, roundworm, guinea worm, schistosomiasis, etc.) in their community • Know when they are at risk and how they get these diseases • Know the most critical prevention measures to apply at school, at home and in the community (e.g. safe disposal of stools, use of latrines, handwashing, wearing shoes, filtering drinking water, safe preparation of food, not entering/swimming in infected water) • Know what to do when infected and understand why they are being treated	**6-9-year-olds:** • Are aware of the signs of the most critical worm and lice infestations • Are aware of what they need to do to avoid getting infected by worms and lice • Are willing to take actions to prevent worm infestation, such as the use of latrines, wearing shoes, avoiding eating raw meat, washing vegetables and fruits before eating, and avoiding swimming in infected water • Are willing to dispose of stools at home and at school safely, e.g. by using latrines • Are willing to help their little brothers and sisters to avoid infection • Are willing to take treatment	**6-9-year-olds:** • Are able to indicate when they have a worm or a lice infestation • Are able to explain how worms and lice are transmitted • Are able to comprehend that worms and lice are harmful • Are able to take the most critical actions to prevent infection and transmission of worms and lice • Are able to dispose of their stools safely, to wash their hands correctly at critical times and always to drink safe water • Are able to help their siblings to prevent infestations • Are able to seek treatment	**6-9-year-olds:** • Drawings: Class is divided into four groups. The first groups draws the symptoms of a worm or lice infestation, the second group draws how worms and lice are transmitted, the third group draws how to prevent transmission and the fourth group draws how and where to seek treatment • Competition: All the children sit in a circle. The teacher makes statements about e.g. schistosomiasis. If the children agree with the statement they raise their hand. If the answer is wrong, they have to leave the circle. The children who are still in the circle at the end have won. • Demonstration of how to prevent transmission: e.g. how to use a filter to prevent guinea worm, how to wash hands correctly, how to use a latrine correctly • School-guided support groups for infected people

10-12-year-olds: • Understand the transmission routes and prevention measures of the most critical helminth infestations in their community and the seasonal pattern • Know when they or their smaller brothers or sisters have a lice or a worm infestation – and know that they will need to seek treatment • Know how to prevent themselves and their family members from getting or spreading the diseases • Know that a worm infestation will have a negative impact on their health and that treatment is easy • Understand that infected people may need information and support to prevent further transmission of the diseases	**10-12-year-olds:** • Are aware of the symptoms of worm and lice infestations • Are willing to practise good hygiene to pre-vent infestation • Are willing and motivated to take actions to prevent transmission at school, at home and in the wider community • Are willing to seek treatment for themselves and others • Accept that anyone may get worm or lice infestations and that support may be required to stop transmission • Recognise that boys and girls may be at different risks, e.g. girls more often infected with guinea worm or schistosomiasis if fetching water, boys more often infected with schistosomiasis if assisting with fishing, etc.	**10-12-year-olds:** • Are able to examine themselves and recognise a lice or worm infestation in themselves or younger brothers or sisters • Are able to identify the most critical sources of worm and lice infestations at school, at home and in the community and know what can be done to stop/reduce infestation and transmission • Are able to be assertive and seek treatment for themselves and others • Are able to prevent infestations of themselves and others • Are able to provide information and support to family and community members in a respectful and helpful way • Are able to resist peer pressure e.g. when invited for swimming on a hot day	**10-12-year-olds:** • Role-plays: Children act out what to do when you have a worm or lice infection (parents and community mem-bers can be invited for this play) • Writing an essay on how the diseases are trans-mitted • Group discussion: why are boys and girls at different risks? • Completing unfinished stories • Mapping of potential sources • Performance and role-play for parents and community members • Demonstration and practice, e.g. on how to build a filter to 'remove' the guinea worm and how to operate and maintain it • Developing a plan for a campaign to prevent lice or worm infestation in school • If possible, visiting a local clinic where the nurse or doctor explains about lice/worm infestations and will show the lice and worms • Environmental walk

Area specific diseases due to pollution of water sources (e.g. arsenic and fluoride)			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know the specific diseases related to water pollution, e.g. due to arsenic or fluoride in their community • Know when they are at risk and how they get these diseases • Know the polluted water sources and alternatives in their community • Know what to do when they or their family members are affected	**6-9-year-olds:** • Are motivated to avoid consumption of polluted water • Are willing to take actions to seek treatment • Are willing to invest extra efforts to consume only safe water	**6-9-year-olds:** • Are able to explain which water sources are polluted/risky • Are able to resist the temptation to drink polluted water, even when very thirsty • Are able to identify proper sources for water supply • Are able to apply simple purification techniques if available	**6-9-year-olds:** • Competition: All the children are sitting in a circle. The teacher makes statements about the disease. If the children agree with the statement they raise their hand. If the answer is wrong, they have to leave the circle. The children who are still in the circle at the end have won. • Mapping of polluted water sources and alternatives • Demonstration on how to use filter techniques • School-guided support groups for infected people

10-12-year-olds: • Know the incidence and impact of the diseases and when they are at risk • Know how the transmission is linked with different water sources • Know the most critical prevention measures to apply at school, at home and in the community • Know what to do when they or family members are affected	**10-12-year-olds:** • Are aware of the transmission routes and the actual risks • Are willing to invest efforts to avoid the consumption of polluted water • Are interested to learn about purification techniques • Are interested to contribute to creating awareness about the risks of consuming polluted water and alternative sources within the community • Are willing to help people in the community to fetch water if necessary	**10-12-year-olds:** • Are able to describe the transmission routes and impact of the pollution • Are able to consume water from alternative sources at home and at school • Are able to operate and maintain simple purification technologies at home and at school if available • Are able to communicate effectively with family and community to provide information about polluted water sources and alternatives	**10-12-year-olds:** • Writing an essay on how the pollution occurs and the impact on their lives • Group discussion: What alternatives are available, what resources are required to avoid the consumption of polluted water and whether all community members will be able to apply alternatives • Completing unfinished stories • Mapping of potential polluted and safe sources • Performance and role-play for parents and community members • Demonstration and practice of how to apply simple purification techniques and how to operate and maintain them

Malaria			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know what malaria is and how it is transmitted • Know several actions one can take to prevent malaria • Know they need to sleep under a bed net • Know the symptoms of malaria • Know that they have to ask for treatment • Know how to detect mosquito breeding grounds and what to do	**6-9-year-olds:** • Are aware of the transmission route of malaria • Are willing to take actions to prevent malaria • Are aware of the signs of malaria • Are willing to seek treatment • Are willing to help their siblings sleep under bed nets	**6-9-year-olds:** • Are able to define malaria • Are able to describe how malaria is transmitted • Are able to take actions to prevent malaria • Are able to seek treatment	**6-9-year-olds:** • Question and answer studies • Singing songs on what malaria is, how it is transmitted and how it can be prevented, etc.

10-12-year-olds: • Know the different sources of transmission in the household, school environment and community • Know what different measures can be taken at the personal, behavioural and environmental hygiene level in order to prevent its transmission • Know the approximate cost of different preventive measures • Know that not all community members will be able to afford the materials to prevent malaria (such as mosquito nets) and know that the cost might have to be subsidised for some	**10-12-year-olds:** • Are aware of the different sources of transmission of malaria in the household, school environment and the community • Are willing to take measures at personal, behavioural and environmental hygiene level in order to prevent its transmission • Appreciate that there is a cost involved in taking preventive measures • Are aware that due to social and economic differences not everyone is in the position to afford materials needed to prevent infection with malaria • Are of the opinion that in principle all should have access to these materials • Accept the idea that some community members can get the materials for a lower cost than others	**10-12-year-olds:** • Are able to explain which sources can cause the transmission of malaria in the household, school environment and community • Are able to take measures at personal, behavioural and environmental level to prevent the transmission of malaria • Are able to understand that due to social and economic differences not everyone is in the position to afford materials needed to prevent infection with malaria • Can argue and defend that some community members should be able to get the materials for a lower cost than others, because of the social and economic differences that exist in the community	**10-12-year-olds:** • Role-play about malaria, telling the story from infection to treatment and a campaign to get rid of mosquitoes • Analysing how many people in class have had malaria, how many parents, brothers, sisters, etc. and making a diagram of this information • Poster: The children first develop a message for a campaign against malaria. Once a message has been developed each child makes a poster. The posters can be displayed in school or community • Investigation of the cost of materials needed to prevent malaria and where the materials can be purchased. Once the investigation is completed, children can present their results. This could be followed by a discussion on who could afford to buy materials and who could not and what could be done to help those who face problems.

Theme: Water, sanitation and hygiene facilities

This theme deals with different aspects related to the facilities for water, sanitation and hygiene within schools, households and the community. Topics to address include the proper construction, maintenance, management, use and monitoring of upkeep and use of provisions for water supply, excreta disposal, refuse disposal, handwashing, and water storage facilities as well as provision for the washing and drying of cooking and eating utensils and provision for kitchen and food hygiene in the schools. It also covers the participation of the staff, boy and girl students, and mothers and fathers in the design, planning, construction and technical training for maintenance of the school facilities. As part of this category, the programme may also introduce staff, students, and parents to facilities that are more suitable for home conditions and include technical training for the construction of basic facilities. The theme can be subdivided as follows:

- Basic knowledge about environmental hygiene at home, in school and in the community
- Defecation practices at home, in school and in the community
- Operation and maintenance of household and school facilities
- Technical and managerial aspects of facilities at home and in school

Basic knowledge about environmental hygiene at home, in school and in the community			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know that it is important for people's health to have good environmental hygiene at home, in the school and in the community • Know two of the most important effects on people's health of poor environmental hygiene in their household, school • Know the most critical problems contributing to poor environmental hygiene at home, in school or in the community • Know the three most important actions that can be taken to clean the household and the school and keep them clean (safe waste disposal, safe disposal of excreta - use of latrines, and the use of safe water sources)	**6-9-year-olds:** • Are aware of the importance for people's health of good environmental hygiene at home, in school and in the community • Are aware of the effects on people's health of poor environmental hygiene in households, schools and communities • Are willing to avoid behaviour that can contribute to poor hygiene at home, in school and in the community are motivated to take actions to clean their household and school	**6-9-year-olds:** • Are able to link good environmental hygiene at home, in the school and in the community with good health • Are able to explain two of the most important effects on their health of poor environmental hygiene in their household, school and community • Are able to explain three behaviours or factors that can contribute to poor hygiene at home, in school • Are able to take actions to clean the household and school surroundings	**6-9-year-olds:** • Consequences quiz: If you do this, that will happen. The teacher gives a behaviour and the children have to write down what will happen as a consequence of this behaviour. • Schedule: Each child has to help the teachers once a week with cleaning the school surroundings • Telling a story that includes the importance of good environmental hygiene at school, at home and in the community such as the booklet 'Meena, three wishes. Towards a Safe Environment' developed by UNICEF Bangladesh 1996 or 'Apprendamos todos junto. Guia de Higiene', part of a package developed by Plan International, Catholic Relief Services (CRS) and Caritas La Paz, in Bolivia.

10-12-year-olds: • Know how to identify and distinguish between the most critical factors jeopardising hygiene conditions at home, in the school and in the community • Know five critical actions contributing to improved household, school and community hygiene • Know three actions that can be taken to clean the home, school and community environment • Know different health and social reasons why it is important to keep a hygienic environment at home, at school and in the community • Know how to define sanitation in their community • Know how different contaminations affect the water supply systems in their village/town • Know how to prevent contamination of the water supply system in their village/town	**10-12-year-olds:** • Are aware that certain behaviour can contribute to poor household, school and community hygiene • Are aware of the importance of a hygienic environment at home, school and in the community • Are willing to take actions to clean the home, school and community surroundings • Are aware of the impact of faecal pollution and the risks of contaminated water for everybody's health • Are aware of the affects of contaminated water to the water supply systems in their village/town • Are willing to prevent contamination of the water supply system in their village/town	**10-12-year-olds:** • Are able to explain which behaviours can contribute to poor household, school and community hygiene and why • Are able to take critical actions to clean the household, school and community surroundings • Are able to explain the risks of an unhygienic environment at school, home and in the community and are able to take action for prevention • Are able to involve others in cleaning their household, school and community environment • Are able to distinguish between the impact of different preventive measures	**10-12-year-olds:** • Group discussion about the relation between behaviour and poor hygiene • Game: One child gives an example of poor household or school hygiene. The child chooses another child who has to explain the risks of this behaviour. This child chooses another child who has to explain how to prevent this behaviour, etc. • Some ideas for extra curricula activities: • Organise a competition in the school – which class has the cleanest classroom • Organise a campaign to clean the school or community • Participation of the children in activities of a school health club, such as outreach to the community • Development of messages related to school hygiene on pieces of paper that can be hung in the schoolyard and classes

Defecation practices at home, in school and in the community			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know that open defecation can contaminate the environment and the water sources • Know that water can get contaminated when urinating in the water • Know where to find latrines and safe places to relieve oneself • Know how to use the school latrines properly and to wash hands after latrine use • Know that there are health risks related to the use of dirty/badly maintained or cleaned latrines • Know how to wipe their bottoms and those of their siblings correctly after using the latrine • Know that it is important to wash your hands after latrine use in order to prevent transmission of diseases • Know several ways of cleaning hands (soap, ash, leaves, etc.) • Know what materials to use to clean oneself, where to find them and where to dispose of them	**6-9-year-olds:** • Are aware of the contamination risks of open de-fecation for the environment and water sources • Are willing to avoid urinating in the water to prevent contamination • Are aware of the importance of using the latrine properly • Are aware of the dangers of not using the latrine correctly • Are motivated to use the school latrines in the correct way • Dislike it when the latrine is not properly used and are willing tell others when they have done so • Are willing to encourage others to use the latrine correctly • Are aware of the health risks related to the use of dirty/badly maintained or cleaned latrines • Find it import to wash their hands after latrine use • Are aware of the different ways to clean hands • Are motivated to dispose of cleansing materials correctly	**6-9-year-olds:** • Are able to explain how open defecation can contaminate the environment and water sources • Are able to choose places that prevent the contamination of water sources • Are able to explain the risks of open defecation in the environment at home, school and in the community • Are able to use the school latrines properly • Are able to explain what health risks are related to the use of badly maintained or cleaned latrines and why • Are able to communicate to others about proper latrine use • Are able to wash their hands properly after using the latrine • Are able to clean themselves properly after the use of latrines • Are able to demonstrate several ways of correct hand cleaning • Are able to explain why people should wash their hands after using the latrine	**6-9-year-olds:** • Making a story on the risks of open defecation and how this can contaminate the water, etc. and having children draw this in pictures that lead to a picture story • Three pile sorting on defecation and urination. Divide the class in smaller groups, and give each group a set of pictures depicting children defecating and urinating in different places. Ask the children to decide for each picture whether the practice is good, bad or in between. After the exercise ask different groups to present a number of pictures and discuss the outcomes with the class. • Practise proper handwashing and proper use of the latrines

10-12-year-olds: • Know the risks of open defecation in the environment at home, at school and in the community • Know that improperly disposed of faeces of all family members are harmful • Know the importance of a household latrine • Know where to find latrines and safe places to relieve oneself • Know health risks of badly maintained or cleaned latrines • Know about the risk of blocking latrines when throwing garbage and other materials in them • Know how to teach the younger students how to use the facilities properly • Know the latrine situation in the community and how this should be changed • Know how to wipe their bottoms and those of their siblings correctly after using the latrine • Know why there is a need for handwashing after latrine use	**10-12-year-olds:** • Are aware of the contamination risks of open defecation for the environment at home, in schools and in the community • Are willing to treat all faeces as harmful • Are aware of the importance of a household latrine • Prefer using latrines for urination and defecation above open defecation and urination • Are aware of the risks of badly maintained or cleaned latrines • Are willing to teach younger students to use all facilities properly • Are willing to advocate for the construction of latrines • Are aware of the importance of washing hands after latrine use	**10-12-year-olds:** • Are able to explain how open defecation contaminates the environment at home, school and in the community • Are able to summarise the risks of open defecation • Are able to explain why all stools are harmful • Are able to explain the importance of a household latrine • Are able to explain all the risks of badly maintained or cleaned latrines to others • Are able to teach younger students how to use all facilities properly • Are able to identify the need for construction of latrines in the community • Are able to organise a sanitation campaign • Are able to explain the importance of washing hands after using the latrine • Girls know where to dispose materials during their menses	**10-12-year-olds:** • Field study or simple baseline study to identify the number, type and state of the household latrines in the community as well as the reasons for people to have or not have the latrines; the questionnaire can be developed in the class • Drawings: Children draw places where families in the community defecate; then children discuss what is done most, what least, if boys and girls use different places, what is best, what is worst, what is the problem and how can it be solved • Community mapping: With the results of the baseline survey the children can be asked to make a community map on which they indicate who has a latrine and who does not. This can be followed by a discussion about reasons why certain people do not have a latrine. • Organising a sanitation campaign

Operation and maintenance of household and school facilities			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
6-9-year-olds: • Know how to use the latrines properly, without making them dirty • Know how to flush the latrine properly (if needed) without wasting too much water • Know how to assist their teachers and parents with the cleaning of the household and school latrines	**6-9-year-olds:** • Are willing to use the latrines properly without making them dirty • Are willing to flush the latrine properly (if needed) • Are aware of not using too much water when flushing the latrine • Are willing to assist their teachers and parents with the cleaning of the household and school latrines • Appreciate the importance of care and cleaning of latrines	**6-9-year-olds:** • Are able to use latrines properly • Are able to flush the latrine properly (if needed) • Are able to use the right amount of water when flushing • Are able to help their parents and teachers clean the household and school latrines	**6-9-year-olds:** • Demonstrations • Writing a song together about the importance of conserving water • Making a list of thing they can do to help parent and teachers keep the latrine clean

10-12-year-olds: • Know the basic operation and maintenance requirements of a latrine • Know which tools can be used for operation and maintenance of facilities • Know how the tools can be used for operation and maintenance of facilities • Know how to clean a latrine with the local materials available in such a way that it is kept hygienic • Know what kind of disinfectants and tools can be used for cleaning the latrine • Know how to assist their teachers and parents with the cleaning, operation and maintenance of the household and school latrines	**10-12-year-olds:** • Are willing to carry out the basic operation and maintenance requirements of a latrine • Are aware of what tools can be used for the operation and maintenance of the facilities • Are willing to use the tools correctly • Are aware of the local materials that can be used to clean a latrine hygienically • Are willing to use the local materials that are available for cleaning the latrine hygienically • Are aware of the importance of assisting their teachers and parents with the cleaning, operation and maintenance of the household and school latrines • Are willing to assist their parents and teachers with the cleaning, operation and maintenance of the household and school latrines	**10-12-year-olds:** • Are able to work with the basic operation and maintenance requirements of a latrine • Are able to use the correct tools for the operation and maintenance of the facilities • Are able to use the tools for the operation and maintenance of the facilities correctly • Are able to keep a latrine clean and hygienic, by using local materials • Are able to explain which disinfectants and tools can be used for the cleaning of the latrine and why • Are able to help their parents and teachers with the cleaning, operation and maintenance of the household and school latrines	**10-12-year-olds:** • If the school has its own facilities, the children can develop a project, together with the teacher, about the operation and maintenance of the latrine and handwashing facilities. The class has to make a schedule for things that need to be done and when they are going to be done (once a week, once a month…) and by whom • Inspection of the existing school facilities and identification of the reparations and the changes needed • Demonstration and explanation by an outsider on skills and tools needed for the operation and maintenance of the school facilities

Technical and managerial aspects of facilities at home and in school			
Required knowledge	**Required attitude**	**Required skills**	**Methods**
10-12-year-olds: • Know the basic construction aspects of latrines, handwashing and water facilities • Know how the school water source should be protected from contamination – at least 15 metres from sources of contamination, need for fencing, drainage and covering of the well • Know different technical options for water and sanitation facilities and have a rough idea of the cost involved	**10-12-year-olds:** • Are aware of the basic construction aspects of latrines, hand-washing and water facilities • Are aware of the means to protect the school water sources from contamination • Are aware of the different technical options for water and sanitation facilities • Are aware of the (estimated) costs for water and sanitation facilities	**10-12-year-olds:** • Are able to recognise the basic construction aspects of latrines, handwashing and water facilities • Are able to protect the school water source from contamination • Are able to mention different technical options for water and sanitation facilities • Are able to roughly calculate the price of different facilities	**10-12-year-olds:** • Taking an excursion to latrines and handwashing facilities: The teacher invites people who build these facilities to explain how the facilities were built and what tools are needed. The children have to make a report about this. If possible the children can practise the use of the tools. • Sanitation ladder: Use a set of pictures depicting different types of latrines. Ask the class to rank the pictures from worst to best sanitation conditions. Ask the children to indicate where they are at home or school and ask where they would like them to be. Take one example and work out with the class the steps that will need to be taken to arrive at the chosen situation.

Section 3 - Examples of lesson plans for life skills-based hygiene education

Introduction to lesson plans

This section of the document presents twelve examples of lesson plans that teachers may use for life skills-based hygiene education. Six of them may be used for 6-9-year-olds and six for the group of children aged 9-12. The lessons cover a range of themes. For example, the lesson plans on food storage, the construction of hygiene facilities and transmission of malaria can be placed under several of four subject areas: 'Types of water sources, waste and environmental hygiene', 'Personal and food hygiene', 'Water and sanitation-related diseases' and 'Facilities for water, sanitation and hygiene'. The areas themselves have been introduced in chapter 4 of section 1 and were elaborated in section 2.

The lesson plans involve the use of participatory activities such as class conversations, brainstorming, writing of songs, demonstrations, games such as broken telephone lines/Chinese whispers, etc. All these activities have been described in more detail in chapter 4 of section 1. The lesson plans have been designed to assist the teacher in involving the children as much as possible in the learning process and to help the children develop skills and attitudes to face everyday life as well as hands-on hygiene skills.

To check the quality and the relevance of the proposed life skills-based lesson plans for the local situation, reference is made to the REAL checklists in section 6.3.2. For the interest, attitudes and appearances of the students:

- Are students interested in making their school a hygienic school?
- Do they try to make other children hygiene conscious?
- Do they try to promote good hygiene habits in others?
- Are they fair and do they divide the tasks equitably, or do they, or teachers, pick on
- certain types of students such as those from poor families, younger or less popular children, girls?

After each lesson the teacher can evaluate the lesson by asking the following questions:

- What went well?
- What could go better?
- Have the objectives been achieved and why?
- What could I do differently the next time?

Lesson plan for 6-9-year-olds

Theme: Types of water sources, waste and environmental hygiene

Subject: Water sources

Starting position
Existing knowledge:
- The children know what water sources are and can distinguish all water sources in the school and for which purpose they are used.

Relevant aspects that can influence the lesson:
- Local situation such as the availability of water sources at the school and in the community; the types of water sources and the types of water supply systems and access to safe water in the different seasons

Objectives
Knowledge:
The children:
- are able to distinguish between clean and dirty water sources;
- know the importance of using clean and safe water sources for drinking purposes.

Attitudes:
The children:
- are interested in investigating/finding out whether a water source is clean (safe for drinking) or dirty;
- are willing to use only clean and safe water sources for drinking.

Life skills:
The children:
- can explain to others the consequences for their health of using unsafe water.

Hands-on hygiene skills:
The children:
- are able to avoid behaviour that is likely to cause water-related diseases, such as drinking contaminated or dirty water.

Time	Activities	Organisation
5 minutes	Activating previous knowledge (what are water sources, which water sources can you mention, what do we use these water sources for?)	In plenary
30 minutes	Walking to the water sources on the school compound and stopping at every source to ask the children if the water is clean or dirty/contaminated and why	Making a route on how to walk to the (different) water sources Organising children into pairs for the walk
5 minutes	Returning back to the class	
15 minutes	Brainstorming in groups of four about why clean and safe water should be used for drinking and cooking purposes; review and listing of good alternative sources	Making groups of four
15 minutes	Discussing the outcomes of the brainstorming in plenary	
20 minutes	The children make a drawing about which water source they would use for drinking purposes	Paper and drawing materials
15 minutes	Children can hang their drawing somewhere in the classroom and 'admire' the drawings of other children	Tape to hang the drawings

Subject: School hygiene

Starting position
Existing knowledge:
- The children know what is meant by school hygiene.

Relevant aspects that can influence the lesson:
- Local situation such as whether the school is located in a rural community or in a city; practices in the community related to environmental hygiene

Objectives
Knowledge:
The children:
- understand the importance of school hygiene;
- know the risks for their health of an unhygienic school environment;
- can mention three behaviours/factors that can contribute to poor school hygiene (for example: unsafe waste disposal, open defecation, storing drinking water uncovered).

Attitudes:
The children:
- understand the importance of school hygiene and are willing to prevent an unhygienic school environment;
- are confident to change their own unhealthy habits in the school environment.

Life skills:
The children:
- learn to identify the different problems related to school hygiene;
- learn how to cooperate with others;
- develop creative skills.

Hands-on hygiene skills:
The children:
- are able to avoid behaviour that is likely to cause an unhygienic school environment.

Time	Activities	Organisation
5 minutes	Activating previous knowledge (what is meant by school hygiene?)	
15 minutes	Class is divided in four groups; each group brainstorms about what behaviours can contribute to poor school hygiene	Paper and pencils
20 minutes	Class discusses outcomes of brainstorming followed by a discussion on the risks of an unhygienic school environment	Blackboard
45 minutes	Making a song about school hygiene. Class decides on a melody everybody knows. The four groups come together again and each group writes one couplet. Songs describe how behaviour can contribute to poor school hygiene, why an unhygienic school environment should be prevented and how everybody can help to prevent this. One group will write a chorus for the song.	Paper and pencils
20 minutes	Chorus and couplets come together and the whole class practises the song, guided by the teacher	

Theme: Personal and food hygiene

Subject: Handwashing

Starting position:
Existing knowledge:
- No specific attention has been given to this subject previously in the classroom setting.

Relevant aspects that can influence the lesson:
- Local situation such as the availability of water and cleaning agents within the school and the community; the economic situation of the parents (whether they are able to buy soap for washing hands or not); the social and economic differences between different families

Objectives:
Knowledge:
The children:
- know when they should wash their hands (at critical moments such as after the use of a latrine, before eating and after handling the faeces of small children and babies);
- know which items can be used for washing hands.

Attitudes:
The children:
- appreciate the use of the items that are needed for handwashing;
- like to have clean hands.

Life skills:
The children:
- are able to communicate and advocate for the need to wash hands at critical moments;
- understand that some families do not have the resources for buying soap for handwashing and therefore might have to use ash, mud or other cleaning agents;
- are able to help their siblings to wash their hands.

Hands-on hygiene skills:
The children:
- can demonstrate the correct way to wash hands at the right time;
- can demonstrate how to teach their siblings how to wash their hands correctly.

Time	Activities	Organisation
5 minutes	Introduction of the theme 'handwashing'	Blackboard
20 minutes	Class conversation (when should you wash hands and why, how should you wash hands and why, which materials can be used, etc?)	Blackboard
25 minutes	Class is divided in groups of four. Each group gets materials for handwashing. They practise with each other the correct ways to wash hands, using different materials.	Handwashing facilities: basin, water, jug, container, soap, ashes, salt, traditional herbs
15 minutes	Each group allocates one person in the group to demonstrate how to wash hands for the whole class	Handwashing facilities: basin, water, jug, container, soap, ashes, salt, traditional herbs
20 minutes	Class conversation (What have the children learned? When should they wash their hands and how? What items could be used for handwashing? Why do certain families use different and or cheaper items, such as mud and ashes for handwashing?)	

Subject: Facial hygiene/Trachoma

Starting position

Existing knowledge:

- The children know that it is important to clean their bodies, but have not yet paid specific attention to the link between trachoma and face washing.

Relevant aspects that can influence the lesson:

- Local situation such as the prevalence of trachoma (seasonality), the availability of water sources at school and in the community, the quality of the water and access to treatment

Objectives

Knowledge:

The children:

- know (can mention and explain) that face washing is important for staying clean and healthy;
- understand the different phases of the diseases;
- know where to seek treatment.

Attitudes:

The children:

- appreciate the importance of face washing;
- are willing to help younger children to keep their faces clean;
- have the will to effectively share the knowledge with members of their families;
- appreciate the socio-economic, environmental and gender aspects of face washing.

Life skills:

The children:

- learn to cooperate during the preparation of the participatory activities;
- build a positive self image and body image: feeling good about being clean oneself, practising cleanliness in the family (in all four activities);
- learn critical and creative thinking and problem-solving skills in thinking out scenes, and identify causes and effects (in all four activities);
- identify rights and responsibilities and changing gender roles/stereotypes by discussing who should keep the latrine clean and fill the reservoir with water for hand and face washing (the drawing) and the roles and responsibilities in the family (the role-play).

Hands-on hygiene skills:

The children:

- can demonstrate and explain effective techniques of face washing in a water-scarce environment.

Time	Activities	Organisation
10 minutes	The teacher facilitates a focus discussion on the reasons for daily face washing and which factors (personal, environmental, social, economic) can be a constraint to frequent face washing	Blackboard
30 minutes	The teacher then announces a competition to see if face washing is difficult and consumes a lot of time and water. The teacher divides the children into two equal groups. (For this, different techniques can be used.) S/he asks each group to choose or volunteer a helper. S/he then asks the two groups to form two parallel queues. The two containers with the reservoir are placed at the head of each queue. The two groups will now compete in how many children can wash their face with water poured on their hands by the helpers until the bucket is empty. The group that has most water left in the container when all have washed, or has managed to wash more children when the container is empty, is the winner. Speed is not a factor, although the two groups tend to compete also on speed. The activity is best done outside as there will be some wetting involved.	Two containers filled with the same amounts of water, two jars to draw water from the bucket
20 minutes	Back in class, the teacher may encourage the children to discuss and conclude: • why face washing is important; • when face washing is done; • how much water is needed for face washing; • why it is important to use water sparingly; • who in the family needs to wash faces; • what are the benefits when all wash their face regularly; • what their own roles may be in practising daily face washing in the family	Blackboard

Theme: Water and sanitation-related diseases

Subject: Diarrhoea

Starting position
Existing knowledge:
The children understand what diarrhoea is and can recognise the symptoms of diarrhoea for themselves as well as for their younger brothers and sisters.

Relevant aspects that can influence the lesson:
- Local situation such as beliefs and practices concerning why children and babies have diarrhoea and about the use of latrines; availability of latrines in the community; resources available, such as money to buy toilet paper or other anal cleansing materials, etc.; the seasons in which diarrhoea is most prevalent

Objectives
Knowledge:
The children:
- understand that excreta is one of the major sources of diarrhoea;
- know that diarrhoea can be life threatening;
- grasp and appreciate where one is at risk and what each actor may do to prevent diarrhoea from spreading;
- understand that all stools are dangerous when not handled and disposed of properly, including the stools of babies and infants;
- know where to find proper facilities for defecation.

Attitudes:
The children:
- feel responsible and find it important to prevent diarrhoea for themselves;
- are willing to handle and dispose of excreta properly and to clean toilets, irrespective of being a boy or a girl.

Life skills:
The children:
- can communicate about sensitive issues such as handling and disposal of excreta;
- can cope with their fears about using latrines (such as being afraid of the dark, falling in the hole, etc.) if these exist.

Hands-on hygiene skills:
The children:
- can demonstrate the proper use of school latrines;
- have the habit of washing their hands properly after latrine use.

Time	Activities	Organisation
5 minutes	Activating previous knowledge (What is diarrhoea?)	Blackboard
15 minutes	Quiz: Teacher asks questions about diarrhoea; how is it spread, are all stools dangerous, etc.	Teacher develops questions; paper and pencils for children
30 minutes	Checking the answers followed by a class conversation about diarrhoea/stools/toilet use	Blackboard Class sits in a circle
10 minutes	Walking to latrines and teacher demonstrating how to use it	Latrine, toilet paper/newspaper, etc; handwashing facility, soap or a local substitute
20 minutes	Class is divided into groups of four. Each group practises how to use the toilet and wash hands, etc.	Latrines, toilet paper/newspaper, etc; handwashing facilities, soap or a local substitute
10 minutes	One child from each group demonstrates to the rest of the class how to use the latrine properly and wash hands afterwards	Latrines, toilet paper/newspaper, etc; handwashing facilities, soap or a local substitute
15 minutes	Back to class; class conversation about what the children have learned	Blackboard

Subject: Skin and eye diseases

Starting position
Existing knowledge:
- Children know what is meant by skin and eye diseases.

Relevant aspects that can influence the lesson:
- Local situation, such as the prevalence of skin and eye diseases; the main causes of these diseases; availability of clean/safe water in the school and community (or the difficulty of accessing safe water)

Objectives
Knowledge:
The children:
- can explain why and how bathing and regular washing of face and eyes can prevent eye and skin problems;
- know what facilities can be used for washing and bathing;
- can mention several social consequences of eye and skin diseases;
- know what to do and where to go if they have an infection or if somebody in the family has an infection.

Attitudes:
The children:
- appreciate regular washing and bathing as a means to stay clean and healthy; like to wash and bathe regularly;
- don't like having dirty eyes or faces or seeing their siblings with dirty eyes and faces.

Life skills:
The children:
- can assess whether they have washed and bathed themselves properly and sufficiently frequently to prevent skin and eye diseases;
- know how to wash their eyes and faces and bodies carefully, especially when having an eye infection or skin infection or having someone in the family with an eye or skin infection;
- can identify and indicate the different water sources available in the community that are suitable for washing and bathing facilities;
- can communicate about skin and eye diseases.

Hands-on hygiene skills:
The children:
- practise washing and bathing habits while making use of safe water on a regular basis.

Time	Activities	Organisation
5 minutes	Activating previous knowledge (What are skin and eye diseases?)	
10 minutes	Class conversation about why washing and bathing regularly is good	
15 minutes	Broken telephone or Chinese whispers: Teacher gives a health message and the children pass it on by whispering in each other's ears. Message could be: "Washing and bathing in safe water sources prevents skin and eye diseases."	Creating several messages
15 minutes	Class names water sources in the community that could be used for washing and bathing	Blackboard
15 minutes	Class is divided into two groups. Each group must rank the water sources from safest to most risky for washing and bathing.	Paper and pencil
15 minutes	Each group shows its ranking and explains why the ranking is in that order	Paper and pencil
15 minutes	Discussion about what the best ranking is	

Theme: Facilities for water, sanitation and hygiene

Subject: Appreciation and use of the latrines

Starting position

Existing knowledge:

- The children know what a latrine is but do not have the habit of using it or using it hygienically and washing their hands after use.
- The children know that open defecation can contaminate the environment and the water sources.

Relevant aspects that can influence the lesson:

- Local situation, such as the kind of latrines that are available and the prevalent beliefs about the use of latrines and habits while using a latrine

Objectives

Knowledge:

The children:

- know how to use the school latrines properly and to wash their hands after latrine use;
- know that it is important to wash your hands after latrine use in order to prevent transmission of diseases.

Attitudes:

The children:

- are motivated to use the latrine at all times;
- like the design of the latrine;
- are motivated to use the latrine in a correct way;
- understand what they like and don't like about the latrines;
- like to wash their hands after latrine use;
- are respectful to other users of the latrine (no harassment).

Life skills:

The children:

- are able to communicate to others about correct latrine use and proper handwashing after use.

Hands-on hygiene skills:

The children:

- are able to use the latrine properly;
- are able to wash their hands correctly after latrine use.

Time	Activities	Organisation
5 minutes	Activating previous knowledge (Why is it important to use a latrine?)	
15 minutes	Tell a story about the risks of open defecation and how this can contaminate the environment	Preparing a story
30 minutes	Take the children to the school latrines and demonstrate and discuss the proper use of latrines and handwashing. Ask some of the children to demonstrate as well.	Soap and cleansing materials
20 minutes	Discussion about latrine use and handwashing: What do you like about using a latrine? What don't you like about it? Why do some people in the community not use them and others do? Do the same for handwashing.	
20 minutes	Ask the children to make a picture that they want to take home about the lesson	Pen and papers and if possible, some colours

Lesson plan for 9-12-year-olds

Theme: Types of water sources, waste and environmental hygiene

Subject: Solid waste

Starting position
Existing knowledge:
- The children know different ways that solid waste can be disposed of (for example burning, recycling, composting, etc.).

Relevant aspects that can influence the lesson:
- Local situation, such as the sort of solid waste available, the possibilities and practices of recycling different sorts of solid wastes; whether the school is situated in a rural or urban environment, whether a system for solid waste collection does exist, the space available for sold waste disposal

Objectives:
Knowledge:
The children:
- know how to keep the school environment free of solid waste;
- know how to separate valuable and non-valuable waste;
- know how to reduce waste.

Attitude:
The children:
- appreciate the importance of a solid waste-free school environment;
- accept that keeping the school environment free of solid waste is the duty of both girls and boys, but also the duty of children from different religions, castes or social/economic groups;
- are willing to help and take up their duty in keeping the school environment solid waste-free or dispose of waste safely and properly.

Life skills:
The children:
- learn to plan for actions to improve the school's environmental hygiene;
- learn to formulate and explain their opinions to others on solid waste disposal.

Hands-on hygiene skills:
The children:
- are able to take concrete and constructive actions to improve the school's environmental hygiene.

Time	Activities	Organisation
5 minutes	Activating previous knowledge (ways of disposing waste)	Blackboard
15 minutes	Brainstorming (How can the children help to keep/make the school environment clean from solid waste?)	Blackboard
20 minutes	Class is divided into four groups. Each group discusses the importance of an environment at school where waste is disposed of safely, which then is discussed in plenary. How to reduce and how to re-use waste in a hygienic way. What are the options for waste reduction and re-use?	Paper and pencils
45 minutes	Class makes an action plan on how they can improve the school's environmental hygiene	Paper and pencils
20 minutes	Class divides the duties that need to be done and makes a weekly plan for this	Paper and pencils

Subject: Water resources management

Starting position

Existing knowledge:

- The children can identify the different water sources in their community.
- The children know for which purposes the different water sources in the community are used.

Relevant aspects that can influence the lesson:

- Local situation such the amount of water available, the type of water sources, for what the different sources are used and the existing local organisation for water management

Objectives

Knowledge:

The children:

- can make a distinction between safe and unsafe water sources for drinking;
- can identify by which activities the water sources in their community are being polluted;
- can make a distinction between safe and less/unsafe water sources in their community;
- know how you can prevent the water sources in the community that are used for drinking and for other domestic purposes from contamination.

Attitudes:

The children:

- are aware of water source pollution and risks of such pollution to their lives;
- want to help to prevent or redress contamination;
- find it important to tell their parents about water source pollution risks and ways to prevent pollution.

Life skills:

The children:

- are able to depict and analyse local situations in which source pollution will take place;
- can suggest and argue possible solutions and measures that can be taken to prevent the water sources in the community that are used for drinking and for other domestic purposes from contamination.

Hands-on hygiene skills:

The children:

- can depict water sources in their community, their uses and the measures to prevent the water sources in the community that are used for drinking and for other domestic purposes from contamination.

Time	Activities	Organisation
15 minutes	Introduction	Blackboard
20 minutes	Activating existing knowledge on water sources, their uses and whether they are safe or not	Blackboard
20 minutes	Brainstorming in plenary on how water sources can be contaminated and how contamination can be prevented	Paper and pencils
60 minutes	Excursion to water sources in the school compound and community in small groups: During this excursion children have to identify which sources risk being contaminated.	Paper and pencils
60 minutes	Mapping exercise in the classroom: The small groups sit together and are asked to draw a map of the part of the community they have visited and indicate the different water sources, which of the sources risk getting contaminated and how.	
Homework	Children are asked to write an essay about the actions the community could take to prevent the contamination of those sources that risk being contaminated. In the next lesson some of the children can be asked to read their essay; if good ideas emerge the parents can be invited to the school to discuss the preventive measures suggested by the children.	

Theme: Personal and food hygiene

Subject: Food storage

Starting position
Existing knowledge:
- The children know that they get ill from eating unsafe food.

Relevant aspects that can influence the lesson:
- Local situation such as practices for food preparation and storage, the economic situation of the parents (availability of fridges or not), differences between the economic situation of parents of different children, the roles and responsibilities of different family members in relation to food preparation and storage: the presence of multiple food vendors within and outside the school compound

Objectives
Knowledge:
The children:
- can mention what can be done to avoid eating contaminated food;
- know how to make food safe to eat;
- understand that storage of food may render it unsafe to eat later;
- understand that they should only buy from hygienic food vendors.

Attitudes:
The children:
- are willing to store food as safely as possible;
- find it worthwhile to take precautions for preventing the eating of contaminated food.

Life skills:
The children:
- can make decisions about safe food handling and maintain these over time;
- understand that due to certain beliefs, time constraints or for economic reasons different people store food in different ways;
- learn to express themselves in a written form.

Hands-on hygiene skills:
The children:
- are able to handle food in a safe and hygienic way;
- are able to select hygienic food vendors if relevant.

Time	Activities	Organisation
5 minutes	Activating previous knowledge (eating unsafe food can cause you to get sick)	Blackboard
20 minutes	Continuum/rope voting (see # for explanation)	Pencil or something to draw a line on the ground
20 minutes	Brainstorming in plenary (How can we store food as safely as possible and how we can prevent the eating of contaminated food? How people store their food in different ways and reasons why.)	Blackboard
30 minutes	Essay: Children write a short essay about how they can handle food safely and how to maintain that behaviour	Paper and pencils

Explanation: Continuum or rope voting:
The teacher makes a statement, for example: "We cannot avoid eating contaminated food." A line is drawn on the ground. One end of the line represents strong agreement with the statement and the other end represents strong disagreement. Students are asked to stand in the line that represents their point of view. The teacher then divides the line into two segments with an equal number of students. The two halves of the line are matched with a more moderate position. The children are asked to share their points of view with each other. They may then choose to regroup along the line.

Theme: Water and sanitation-related diseases

Subject: Malaria

Starting position

Existing knowledge:

- Experience of being ill with malaria and thus experience with the symptoms of malaria; experience of being bitten by mosquitoes

Relevant aspects that can influence the lesson:

- Local situation such as the prevalence of malaria in the area, the availability of bed nets and treatment in the community, local treatment of malaria, the economic situation of the parents for treatment as well as for taking preventive measures

Objectives

Knowledge:

The children:

- know what malaria is and how it is transmitted;
- know the symptoms of malaria;
- know how it can be prevented and treated;
- know where to seek impregnated bed nets and treatment.

Attitudes:

The children:

- find it important to take preventive measures against malaria for themselves and their siblings;
- are motivated to participate in the prevention of malaria and willing to motivate others to participate as well;
- are willing to seek treatment for themselves.

Life skills:

The children:

- can seek appropriate treatment for malaria;
- know how to properly use impregnated bed nets at home;
- learn to work as a team;
- understand that certain families or members of the family might not have the same possibilities to take preventive measures against malaria or to participate in taking action against the prevention of malaria.

Hands-on hygiene skills:

The children:

- can undertake actions to prevent malaria.

Time	Activities	Organisation
5 minutes	Introduction of the subject (malaria) through a discussion on experiences with malaria, identification of the symptoms and ways it is transmitted	Blackboard
10 minutes	Story by teacher (What is malaria and how is it transmitted?)	
15 minutes	Brainstorming (in plenary) (How can we prevent malaria? What are preventive measures and what are the cost involved?)	
45 minutes	Drawings: Children make a story or drawing, telling what malaria is, how it is transmitted, what the symptoms are and what one can do about this. Class is divided into four groups. Each group makes several drawings about malaria. In the end, all drawings together form a story. The drawings are presented in the classroom.	Paper and crayons
20 minutes	Class discusses the drawings and what they have learned about malaria	

Theme: Facilities for water, sanitation and hygiene

Subject: Caring for and cleaning school facilities

Starting position

Existing knowledge:

- Children know the consequences of using dirty latrines and handwashing facilities and are familiar with the proper use of latrines, water and handwashing facilities.

Relevant aspects that can influence the lesson:

- Local situation such as the practices and the possibilities related to cleaning

Objectives

Knowledge:

The children:

- know which tools and disinfectants can be used for the cleaning of the latrine, water and handwashing facilities.

Attitudes:

The children:

- are willing to take the responsibility to assist with the cleaning of the latrines, water and handwashing facilities;
- are willing to cooperate with others in cleaning of latrines and handwashing facilities;
- accept that the cleaning of the facilities is the responsibility of all;
- are aware of the importance of cleaning the school facilities.

Life skills:

The children:

- are able to work in groups for cleaning purposes;
- are able to cooperate with others;
- assess their contribution to the cleaning of the school facilities as positive.

Hands-on hygiene skills:

The children:

- are able to properly clean the latrines, water and handwashing facilities;
- can handle cleaning tools and disinfectants in a convenient and safe way.

Time	Activities	Organisation
5 minutes	Activating previous knowledge	Blackboard
10 minutes	Brainstorming (What materials can be used for cleaning the school water, sanitation and hygiene facilities? Who should be involved in the cleaning?)	
45 minutes	Practising cleaning, the use of the tools and materials and how to clean the facilities (class is divided into three groups and each group is responsible for the cleaning of one of the three facilities)	Brooms, soap, ash, buckets, water, latrine, handwashing facilities, disinfectants
15 minutes	Discussing what it is like to clean the facilities and how it went	
45 minutes	The three groups make schedules for cleaning the latrines and the handwashing facilities. (One group makes a schedule for the latrines, one for the water facilties and the other for the handwashing facilities.)	Paper and pencils

Subject: Construction of a simple pit latrine

Starting position

Existing knowledge:

- The children do not have any specific knowledge on this subject.

Relevant aspects that can influence the lesson:

- Local situation, such as the type of latrines used in the community (if they are too complex it will be difficult to teach children the construction skills), the availability of resources (money, materials, skills, etc.) for the construction of simple pit latrines, the local practices and beliefs in relation to the use of latrines, and the latrines available in the school

Objectives

Knowledge:

The children:

- know which tools can be used for the construction of a simple pit latrine;
- know how these tools can be used;
- know which materials are needed for the construction of a simple pit latrine.

Attitudes:

The children:

- are interested to know how latrines are constructed;
- are motivated to use their skills to assist with the operation and maintenance of the school facilities;
- find it important to tell their parents about the need for latrines and how these can be constructed.

Life skills:

The children:

- are able to gather information on the process of how to construct a simple pit latrine;
- are able to explain in writing the different steps, materials and tools needed for the construction of a simple pit latrine.

Hands-on hygiene skills:

The children:

- have the basic skills to use the tools needed for the construction of a simple pit latrine;
- have the basic skills to operate and maintain pit latrines.

Time	Activities	Organisation
5 minutes	Introduction (identification of the experiences of the children with construction activities)	Blackboard
15 minutes	Brainstorming in plenary (What tools can be used for the construction of a pit latrine? What materials are needed for the construction?)	Blackboard
20 minutes	Class discussion (How can the tools be used and which materials are needed?)	Tools that can be used for constructing a simple latrine and a picture of a simple latrine
60 minutes	Field trip to latrines: People who build these latrines explain how they are built, which materials are used and how the different tools are used. Children get the opportunity to practise their skills.	Inviting an 'expert' who builds latrines
Home work	Children write a report on the field trip, in which they explain the steps that need to be taken for the construction of a pit latrine, and list the materials and tools needed (can be done as homework)	Paper and pencils

List of Abbreviations

FRESH	Focusing Resources for Effective School Health
IRC	IRC International Water and Sanitation Centre
MOET	Ministry of Education and Training
PTA	Parent-Teacher Association
SSHE	School sanitation and hygiene education
UNICEF	United Nations Children's Fund
WHO	World Health Organization

List of References

Ahmad, T. and Alibhai, K. (2001). 'Health and hygiene education programme : Northern Pakistan'. In: *Notes and news on school sanitation and hygiene education.* http://www.irc.nl/content/view/full/9653#n*

Boot, M.T. and Cairncross, S. (1993). Actions speak : *the study of hygiene behaviour in water and sanitation projects.* The Hague, The Netherlands, IRC International Water and Sanitation Centre

Burgers, L.(2000). *Background and rationale for school sanitation and hygiene education.* New York, NY, USA, UNICEF. http://www.irc.nl/content/view/full/9579

Fountain, S. (1995). *Education for development : a teacher's resource for global learning.* Portsmouth, UK, Heinemann

Greene, W.H. and Simons-Morton, B.G. (1984). *Introduction to health education.* Prospect Heights, IL, USA, Waveland Press

Gupta, D. et al. (1999). *Primary years : towards a curriculum framework.* Part II. New Delhi, India, National Council of Educational Research and Training

Hart, R.A. (1997). Children's participation : *the theory and practice of involving young citizens in community development and environmental care.* London, UK, Earthscan

Hohmann, M.and Weikart, D. (1998). Actief leren : *handboek voor begeleiders en leerkrachten van jonge kinderen.* Utrecht, The Netherlands, ThiemeMeulenhoff Translation of: Hohmann, M.and Weikart, D. (1995). Educating young children : active learning practices for preschool and child care programs. Ypsilanti, MI, USA, High/Scope Educational Research Foundation

Hooff, I. van (1998). *Towards better programming : a manual on school sanitation and hygiene.* (Water, environment and sanitation technical guidelines series; no. 5). New York, NY, USA, UNICEF, Water and Environmental Sanitation Section. http://www.irc.nl/content/view/full/467

Miljevic-Ridicki, R. ; Males, D. and Rijavec, M. (1999). *Education for development.* New York, NY, USA, UNICEF

Ministry of Education (1997). *The integration of water, sanitation and hygiene education (WASHE) in the teaching of English, social studies, environmental sciences and mathematics : information and suggested activities. Grades 1-7.* Lusaka, Zambia, Ministry of Education

Ministry of Education (2000). *The basic school curriculum framework.* Lusaka, Zambia, Curriculum Development Centre

Ministry of Education (2000). *Report on school health and nutrition curriculum review workshop, Masiye Motel, Lusaka, Zambia.* (Unpublished document)

National Council of Educational Research and Training (1998). *The primary years. Towards a Curriculum Framework.* New Delhi, India.

Noriko Izumi (2001). 'School sanitation and hygiene education in East Lombok, Indonesia'. In: *Notes and news on school sanitation and hygiene education.* http://www.irc.nl/content/view/full/9653#n*

Parreren, C. van (s.a.). *Ontwikkeling van het jonge kind in de basisschool 4-8 jaar.* Baarn, The Netherlands, Bekadidact

Postma, L. ; Phiri, C. and Snel, M. (2002). 'An effective approach for hygiene education : life skills'. In: Scott, R. *People and systems for water, sanitation and health : proceedings of the 27th WEDC conference, Lusaka, Zambia, 2001.* Loughborough, UK, WEDC, Loughborough University of Technology. P. 68-70 : 1 tab. http://www.lboro.ac.uk/wedc/papers/27/4%20-%20Health%20Promotion/7%20-%20Postma.pdf

Snel, M. ; Bolt, E. and Postma, L. (2000). 'Challenges facing school sanitation and hygiene education from the perspective of the school teacher'. In: *Waterlines,* vol.19, no.1, p. 25-28 : 3 photogr.

UNESCO ; UNICEF ; WHO and World Bank. (2000). *Focusing resources on effective school health : a FRESH start to enhancing the quality and equity of education.* Paper presented at the World Education Forum 26-28 April 2000, Dakar, Senegal.

UNICEF website
http://www.unicef.org/teachers

UNICEF and IRC (2000). Workshop paper : *life skills-based hygiene education workshop* 12-15 September 2000, New York. New York, NY, USA, UNICEF, Water and Environmental Sanitation Section.

UNICEF and IRC (2001). 'Life skills-approach in SSHE'. In: *Notes and news on school sanitation and hygiene education.*
http://www.irc.nl/content/view/full/9653

UNICEF ; WHO ; World Bank ; UNFPA ; UNESCO ; Education Development Centre ; Education International ; Partnership for Child Development (2003). Skills for health : a reference tool for skills-based health education, an important strategy of a Child-Friendly/Health Promoting School. Reference paper: Skills-based health education, including life skills. Draft.

UNICEF (Zambia) and the Ministry of Health (Zambia) (2001). *Life skills approach with a focus on water, sanitation and hygiene education : training of trainers workshop held at the Barm hotel in Lusaka, 3rd – 14th* September 2001.

WHO (1980). *Teaching for better learning : a guide for teachers of primary health care staff.* Geneva, Switzerland, World Health Organization

WHO (1997). *Strengthening interventions to reduce helminth infections : an entry point for the development of health-promoting schools.* (WHO information series on school health; no. 1). Geneva, Switzerland, World Health Organization. http://www.who.int/school_youth_health/media/en/95.pdf

WHO (2000). *Local action : creating health promoting schools.* (WHO information series on school health). Geneva, Switzerland, World Health Organization. http://www.who.int/school_youth_health/media/en/88.pdf

Winblad, U. and Dudley, E. (1997). *Primary school physical environment and health : WHO global school health initiative.* (WHO information series on school health; no. 2). Geneva, Switzerland, World Health Organization

IRC International Water and Sanitation Centre

IRC facilitates the creation, sharing, and use of knowledge so that sector staff and organisations can better support poor men, women and children in developing countries to obtain water and sanitation services they will use and can sustain. 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.

IRC International Water and Sanitation Centre
PO Box 2869
2601 CW Delft
The Netherlands
Tel: +31 15 21 929 39
Fax: +31 15 21 909 55
Website: www.irc.nl

Life Skills-Based Hygiene Education

Education prepares children for a better life. The knowledge, attitudes and skills that they acquire at school improve job prospects and bring opportunities to escape poverty and move up the social scale. But, for many millions of children in the developing world, the primary element of a better life is a cleaner, healthier living environment for themselves and their families.

That does not have to wait until the children have gained academic qualifications and found good jobs. With life skills-based hygiene education, right from the start of their schooling, children become agents of change, able to influence the hygienic behaviour of their parents and siblings and to improve their own living conditions.

The concept of life skills-based hygiene education is that children learn about and practise good hygiene in ways that match their different stages of development. Teachers use participatory methods that encourage sharing of home and school experiences. Through their songs, role-playing and evident enthusiasm for their cause, the children's own behavioural changes are conveyed to their families and communities in ways that amuse and entertain as well as raise awareness.

Implementing life-skills based hygiene education presents new challenges to teachers and school authorities, but the results are highly visible and very rewarding. To help teachers and others to meet the challenges and gain the rewards, IRC has published this book. It is intended for anyone interested in initiating or strengthening this new approach to hygiene education in and around schools.

Another reason for writing the document has been to stimulate comments, additions and corrections, so that we can all learn and further develop the content and materials presented. The authors invite others to share curricula, lesson plans, educational materials and teachers' training materials for further development of the theme. All such contributions will be fully acknowledged in any updated version.

ISBN 90-6687-045-1

9 789066 870451

IRC International Water and Sanitation Centre