



# The School Health and Nutrition **Health Education Manual**



**Save the Children**





DIORO TOWN, SEGOU DISTRICT, MALI:  
From left, Howa Keita, 13, Aminata Touré, 10,  
Elizabeth Coulibaly, 15, Katija Fofana, 12,  
Minta Sangaré, 12, Miram Diawara, 13, wait for school  
in Dioro, Mali, January 4, 2010.

*Joshua Roberts*

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#### Front cover image

Shamrad is the trainer in a child-to-child program in Northern Afghanistan. With flipcharts and role-play, he facilitates training on health and nutrition in the school. *Mats Lignell*

#### Back cover image

Headmaster Aleck Godfrey Mupazviriho leads the class in a singing and dancing exercise at the Matau Primary School in Matau village in Zimbabwe. *Susan Warner*



**Save the Children**





6 year-old Jasmin follows along with her teacher Roberto Cuj Tun. He is leading an interactive exercise in their kindergarten class at the Panimanquip School.

*Rick D'Elia*

# About this Manual

Over the past several years, Save the Children has developed tools for country offices to use in their School Health and Nutrition (SHN) programs. The implementation tools include: our Common Approach to School Health and Nutrition Programs; a Knowledge, Attitudes, and Practices Questionnaire; School Water, Sanitation, and Hygiene Checklists; sample Operations Manuals; and several other tools. Although these tools have been helpful to many SHN Program Managers, we have heard from colleagues around the world that there's been something missing: A health education manual.

*The School Health and Nutrition Health Education Manual* is an answer to this gap. It is a collection of lesson plans on 23 topics that make up a comprehensive SHN curriculum. The lessons have been grouped into like topics:

- Water, Sanitation, and Hygiene**
- Infectious Diseases, Including Neglected Tropical Diseases (NTDs)**
- Taking Care of Our Bodies**
- Preventing Disease and Injuries**
- Nutrition**
- Sexual and Reproductive Health, Including HIV and AIDS Prevention**

Not all SHN programs will use all 23 topics, but these lessons represent priority topics for most programs and should be included in a comprehensive health curriculum. Each SHN program may choose to elaborate more on key topics, based on its country office's SHN strategy and what is appropriate for their country and the children they're teaching. Similarly, SHN programs may choose to not include some topics.

The lesson plans have been written as examples that can be used as they are. They have been written to be given in about 60 minutes and to be appropriate for children aged eight to ten. SHN Program Managers should modify the lessons to take an appropriate amount of classroom time for the schools they work with, and they should modify the activities so that they are appropriate for the ages their program is targeting. These lessons can also be used in afterschool or extracurricular settings with appropriate changes.

Furthermore, the lessons can also be divided into smaller lessons so that one "lesson" can be used over the course of a week or month. Some of these lessons have steps, based on the basics of child-to-child methodology, that require children to collect data at home, analyze the findings at school with the assistance of the teacher, and to take action with the findings. These steps could also become individual lessons.

Additional modifications should be made to respond to each impact area. For example, stories should contain names that are common to the geographical location. Foods that are listed in the manual should be foods that are commonly available. References to diseases, vegetables, fruits, soap, toothbrushes, and other objects should also include the local names.

This manual has very little in the way of art and graphics. This choice was intentional. Art and graphics are best when they're specific to their locations. Therefore, we encourage each country office to work with a local designer to create images that resonate with the children in their impact areas.

## Lesson Plan Structure

### **Health Topic Background**

This handbook contains lesson guidance on 23 health topics. The lessons start with a section on background information. This background section is designed to equip teachers with the basic information on the health topic that forms the focus of the lesson. It ensures teachers have the knowledge and understanding they need to teach the lesson with confidence. Most of the section contains factual information, and there is a final section in most lessons on what schools teachers and children can do to collect further information and help to spread the information throughout the community.

### **Lesson Planning and Preparation**

The lesson plan itself begins with a planning section which includes: a skills-related aim; a set of objectives; ideas on preparation that the teacher can do before the lesson; and guidance on the lesson materials that are required to use the lesson as set out in the handbook.

The section on preparation is about gaining an understanding of the health topic in the local context. It is best if this preparation can be done with children or young people as guides or “informants”. This preparation will help the teacher learn how to adapt the teaching and the activities to solve actual problems and challenges that are specific to the community in which he or she teaches.

Each lesson plan also includes a list of materials required to teach the lesson. Materials have been kept simple and low-cost, with hopes that they’ll be easy to acquire on limited classroom budgets. Lesson plans give instructions on how to conduct several activities for each lesson to help teach the material in a participatory way.

### **Lesson Activity Guide**

The main section of the lesson is a step-by-step guide through sections that are common to most but not all of the lessons. In some lessons, sections such as the quiz or the question and answer sections are not included. Instead, more time is given to discussing and solving challenges that children face in practicing a particular skill (like washing hands). The basic knowledge and understanding content is woven into these activities. When the lesson begins with a quiz and a question and answer section, answers are provided for the teacher but it is up to the teacher to decide how to use those answers.

Each lesson includes at least one main activity to promote active thinking and learning in the class. Teachers may need to adjust the activity to fit with the age and stage of the children, the number of children in the class, and the time available for the lesson.

The concluding activity of the lesson is often an assessment of the improvement in knowledge and understanding using the quiz questions used from the beginning of the lesson. This follow up activity will give the teacher a quick and rough guide on how many of the students have improved their knowledge and understanding. More thorough assessment tools can be used if the teacher has time.

At the end of most of the lessons, there are a few ideas sections. The first focuses on homework ideas. These are often ideas that ask the children to take topics from the lesson home to discuss with their families. Homework activities may also give children assignments, like collecting information or drawing pictures that are most useful if the teacher uses a following lesson to share the results of the homework assignments. The second section provides some ideas on how the lesson’s topic could be further developed into additional lessons. Finally, most lessons include a section that includes ideas on how to include the health topic in other school subjects like math, science, and art. This section includes short descriptions of activities a teacher might develop further.

### **Quizzes:**

Most lessons suggest using a short quiz at the beginning of the lesson (pre-test) and using that same quiz at the end of the lesson (post-test). These quizzes are meant to give the teacher a general understanding of what knowledge children have before the lesson and what they’ve learned as a result of the lesson. The quizzes are meant to be quick. In most cases, questions require yes or no answers. The teacher should ask children to raise their hands for the correct answer. The teacher should count the number of children with the correct answer before and after the lesson. During the pre-test, the teacher should not provide the correct answer. Rather, the answer will be given during the lesson. During the post-test, the teacher may choose to give the answer after children have answered the question. During the lesson, the teacher can emphasize sections of the lesson that address questions that children had particularly low levels of knowledge of during the pre-test. If there are questions that many children answer incorrectly during the post-test, the teacher should provide follow up lessons to enhance learning on those topics.

**Question Box:**

Many topics suggest using the Question Box. When health lessons focus on actual problems that children may be facing, the children may be reluctant to share a particular problem or to ask a question openly. The Question Box is a way for children to ask anonymous questions to the teacher. The teacher should mention the Question Box before each lesson and encourage children to put questions there that they do not feel comfortable asking in class. The teacher should make a habit of checking the Question Box regularly and making time in class for questions to be read and answered aloud for the whole class (keeping the identity of the child asking the question hidden). Students feel highly motivated when the teacher responds to the questions placed in the box.

**Campaign Development**

In the lesson on malaria, there is an additional section on how to run a malaria health campaign. This campaign framework follows a six-step process<sup>1</sup>:

1. Understand the topic
2. Find out more
3. Plan action
4. Take action
5. Reflect on action
6. Act again

This six-step process can be applied to any campaign topic. Schools might focus on one campaign topic per term (or per year) and get each class involved in different activities focused on this topic. The campaign should be linked to a specific need in the community or to a broader campaign, such as community-led total sanitation. As a result, children will recognize their roles as important agents of change.

We are grateful to so many people who helped to prepare this manual: Colleagues from country offices who provided examples from their own health education syllabi and lesson plans; our colleagues in Washington and Westport with technical expertise and assistance; colleagues from partner organizations with suggestions and great ideas; and a special thanks to Clare Hanbury-Leu who spent countless hours getting these lessons prepared.

We look forward to receiving your feedback on the manual. Please let us know how you use the manual – what works and what doesn't work, what modifications you've made, what's missing? We hope to include these suggestions and modifications in future versions of the manual. We would also love to receive a copy of your final manuals so that we can share them with others.

**Happy teaching!**

The School Health and Nutrition Team

<sup>1</sup>Child-to-Child Trust. <http://www.child-to-child.org/>





Hatiabo Haji Somir Uddin Community Primary School. Gazipur District, Bangladesh. Proteeva Project-Pre-primary school student Kawser uses a bottle and funnel to pour water during an exercise designed to promote numeracy.

*Jeff Holt*



# Section I:

# Water, Sanitation, and Hygiene

## Lesson I: The Importance of Hygiene

The term “hygiene” is taken from Hygieia, the Greek goddess of health, cleanliness, and sanitation! Good hygiene means keeping yourself and your environment clean in order to prevent illness and disease. It means living in an environment where human and animal feces do not enter your body. One gram of feces, approximately the size of a child’s little toenail, may contain 10 million viruses, one million bacteria, 1000 parasite cysts, and 100 worm eggs!

In environments where people don’t practice good hygiene, they are not protected from feces and they are exposed to germs, which cause diarrhea and acute respiratory diseases. These two illnesses are big killers of young children, and they are the primary illnesses facing school-aged children. Safer water, combined with good hygiene practices, can reduce diarrhea infections by more than half. When safe water and good sanitation facilities are available, but there are poor hygiene practices, you get fewer of the benefits of improved water and sanitation.

What are “good hygiene practices?” There are three categories:

1. **Personal hygiene.** Personal hygiene includes washing hands with soap at key times, including: before eating, before preparing food, after defecating and after cleaning a baby’s bottom or assisting an older or sick person to defecate. Hands should be washed with soap for 20 seconds and air-dried or dried with a clean cloth/paper. Personal hygiene involves keeping the body clean (nails, fingers, toes, teeth, ears, face, hair, body), wearing shoes, wearing clean clothes, using a latrine for urination and defecation and cleaning the body well after defecation. Personal hygiene also includes menstrual hygiene and managing menstruation hygienically.
2. **Household hygiene.** Household hygiene includes: keeping clothes and bedding clean; the safe disposal of rubbish; sweeping floors; cleaning cooking pots and utensils after use and storing these items above the ground; ensuring children do not crawl near the latrine or other areas where they might be exposed to animal or human feces; separating animals from family living areas; and managing animal urine and feces and its disposal.
3. **School and community hygiene.** School and community hygiene includes: ensuring a safe water supply for drinking and washing hands; providing soap; providing and maintaining latrines; maintaining clean and tidy classrooms; keeping animals and their excrement away from school compounds; and dealing with difficult weather conditions. Ridding the community/school ground of stagnant water, and places where water might collect is also an important aspect of school and community hygiene, as is disposing of litter and rubbish in a central location.

Hygiene is fundamental to good health practices, and it needs to be taught in a fun, engaging way that connects it with the realities of children’s lives. Children can be powerful activists for change when they understand the deeper issues. If teachers simply *tell* children what to do and what not to do, little will change. Reflect on the fact that most adults know they should wash their hands with soap, but do not do it. Reflect on why this is: costs, services, culture? Before teaching important hygiene messages, we need to understand the challenges families and communities must overcome to practice good hygiene. For example, are there adequate supplies of water and soap?

Most children will have little control over how to use water, the purchasing and use of soap, the amount of water that can be used to wash with or to drink, how and when clothes are cleaned, or how water is made cleaner and safer (methods such as filtering, boiling or using sunshine). It is important that children are not stigmatized for their own poor hygiene. Often it is through no fault of their own and other children and teachers need to be aware of this, behave in a sensitive way and find ways to support them.

At school, children can work with teachers and other adults to make an important contribution to improving the conditions for practicing good hygiene, raising awareness in the community, and supporting families who have less access to water or who do not have a latrine. Once better conditions for families are in place, children can help by raising awareness and monitoring their own and others' hygiene practices.

## Lesson Plan on Hygiene

### Lesson aim

Children will be able to identify sources of germs and adopt health practices that prevent germs from spreading. Children can set up a hygiene club.

### Lesson objectives

By the end of the lesson, children must:

- Understand what germs are, that they are invisible, where they may be hiding and how they are spread,
- Be able to state three ways that germs get inside our bodies,
- Feel motivated to set up a hygiene club,
- Demonstrate appropriate hand washing steps,
- Demonstrate knowledge of the four key times to wash hands: before eating and preparing food, and after defecating or cleaning someone who has defecated.

### Lesson preparation

#### Read these notes:

- This is the first lesson in a series of four specific hygiene related lessons. This lesson focuses on general hygiene issues, the next on safe water, the third on personal hygiene and the fourth on school and community hygiene. Each lesson has distinct and related activities. Other lessons also focus on hygiene as a preventative strategy, including the lessons on: worms, trachoma, and looking after our teeth and our eyes.
- This lesson does *not* include a quiz or question and answer activities at the beginning of the lesson.
- There is a chance for the teacher to collect information about the children's actual hygiene practices during activity two. Two interesting questions to address in the lesson are: "why children do not follow good hygiene practices?" and "what can be done to change this?" With the help of the children, and if possible health workers, the teacher can collect information about general hygiene issues in the family, school and community before the lesson. When the lesson is used with older girls, it may be useful to find out about menstrual hygiene practices and explore issues relating to these in activity two. Adapt the questions for the concluding activity on the basis of what you found out.
- It may be useful to set up a 'hygiene club' with the children. Before the lesson decide if and how a hygiene club could function smoothly in your school (or if extra hygiene related activities could be incorporated into the activities of other clubs – such as the Guides or the Scouts).

### Lesson materials

- For activity one: Prepare a glass (or plastic bottle) of dirty water and a glass (or bottle of) of clean water.
- For activity two: Cut out 24 squares of paper big enough to be visible to the class. On 4 pieces of paper write 1 and on 20 write 0. These numbers can be made using fingers if paper and pens are in short supply.

## How to conduct a 60-minute lesson on Hygiene for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about hygiene into the Question Box. Questions can be answered during a future health lesson.

2. **Activity one: Germs are invisible (10 minutes)**

- Show the children the glass of dirty water and the glass of clean water. Ask the children: *Which of these glasses of water has germs in it?* They will probably reply: *The dirty one!* Shake your head and ask them to try again! Let them guess. The correct answer is that we do not know, as germs are too small to be seen without a microscope. Add these points: Most dirt will contain germs, but an example of “clean” dirt is ash, as it is what is left from burning and burning kills germs.
- Pass around a pencil or pen. Get all the children to pass it one to another in silence. When it comes back to you. Ask the children: Does the pencil have germs on it? Answer: yes! Ask: *Where have the germs come from?* Answer: from all of us!

3. **Activity two: (30 minutes) Keeping Ourselves Clean**

- Hand out the squares of paper to 24 of the children in your group.
- Tell the children to look at their thumb. Tell them that one gram of feces would sit inside your little fingernail. In that one gram you can find:
  - 100 worm eggs (*Make this number from one child holding up a 1 and another two holding up 0's.*),
  - 1000 parasite cysts (*1 + three 0's*),
  - One million bacteria (*1 + six 0's*), and
  - 10 million viruses (*1 + seven 0's*)(By the end you will have 24 children holding up these four numbers) Ask the children: *What do you think about the number of viruses and bacteria and worm eggs and parasite cysts in a small amount of feces?*  
Answer: Feces is very dangerous.
- Teach the children the well-known song “head, shoulders, knees and toes.” The words of the song are as follows.

*Head, shoulders, knees, and toes, knees and toes  
Head, shoulders, knees, and toes, knees and toes  
And eyes, and ears, and mouth, and nose  
Head, shoulders, knees, and toes, knees and toes*

Sing the song once though. As you sing it, tap each part of the body mentioned in the song with your hands. Sing it again, leaving out the word “head” and replacing it with “Mmm,” Sing it again, leaving out the words “head” and “shoulders” and replacing both with “Mmm.” Continue until all you are singing is “Mmm” as you point to the 8 parts of the body.

- Ask the children: *Where on the body can we find germs?* Answer: Everywhere! Ask: *How do germs spread?* Answer: Through touching with the mouth, hands or clothes; by using the same objects as others (like the pencil or sharing cups and plates); and through sneezing and coughing.
- Divide the children into eight groups. Give each group the task of working out how to demonstrate how they should keep **one** of the following parts of their bodies clean every day: nails, face, eyes, ears, toes, body, hair, teeth. After 10 minutes, ask the children to arrange themselves around the room and have each group do their demonstrations. After each demonstration, have the children comment on the demonstration. Then, ask the children to show their hands if they always follow this practice. If they don't, ask why not. Write down their responses.



- Ask the children: *What other ways we keep ourselves clean?* Answer: Wearing shoes, wearing clean clothes, using a latrine, wiping or washing ourselves after defecating, helping to dispose of the feces of younger children safely. As appropriate, discuss menstrual hygiene practices as well.
- Ask the children: *Why is it difficult to follow good hygiene practices?* Answers might include: Parents don't allow much water to be used for washing our body, face and eyes; we don't have soap; we sometimes have soap but not always; we don't have enough money for shoes; we keep growing out of our shoes.

#### 4. Activity three: Talking about, “how to set up a hygiene club” (10 minutes)

- Tell the children, that although most of us know how to practice good hygiene, many of us do not do it. Tell them that a hygiene club could help the children come together to discuss what they can do, together and individually, to improve their hygiene practices. The club could also help the adults in the community create a better environment to practice good hygiene.
- Ask the children to vote if they would like a hygiene club. If they say yes, decide when the club can meet to discuss how the club will work and when it will meet. An opportunities chart (page 28) is a good tool to use at the beginning to determine the children's ideas.

#### 5. Concluding activity: (10 minutes)

- Ask the children to work in groups. Each group will prepare an answer to one of several questions on hygiene. Adapt the questions to your group. Using a rapid-fire technique, repeat each question and have one of the children from the group immediately share their answer. Correct, or add to, the answer and then move on to the next question. Here are some examples:
- *Why is hygiene is important?* Answer: Good hygiene can keep us healthy. Germs can make us sick.
- *How do germs get into the body?* Answer: Germs on the hands get into the body when touching the mouth or food. Germs in the water get into the body when we drink. Germs that are on the skin get in when we do not wash them off. Germs that are in the air get in when we breathe.
- *What are some of the most important hygiene practices that children need to conduct every day?* Answer: Washing hands with soap for 20 seconds before eating and preparing food, and after defecating or cleaning someone who has defecated; wearing shoes; cutting nails; washing the face (eyes and ears); wearing clean clothes; cleaning the bottom after defecating; discarding rubbish in a central location.
- *What are the main reasons why children in this school do not follow good hygiene practices?* Answer: The answers will depend on the school. For example: We do not have clean latrines, we do not have a supply of safe water, we do not have soap to wash our hands after the latrine, we don't have a place to discard rubbish, etc.
- *What can children do to help each other practice good hygiene?* Answer: We can build tippy taps and maintain the supply of water and soap; we can remind each other to practice good hygiene; we can teach younger children important hygiene lessons.
- *Do good hygiene practices keep us healthy? How?* Answer: Yes, because good hygiene is the enemy of germs. Good hygiene stops germs getting into the body.

Invite children to talk about their lesson at home and put any questions they or their family has in the question box.

### Hygiene homework activity

1. Ask the children to teach the “Head, Shoulders, Knees, and Toes” song to other children at home and then explain how to keep all parts of our bodies clean to prevent diseases.
2. Ask the children to collect questions about hygiene from their family members to put in the questions box.

### Ideas to develop the lesson on hygiene

Hygiene is a very good topic to use to develop a school-community campaign. See the lesson on malaria for ideas on how to run a campaign. The same steps can be used to design a campaign with the children on hygiene in the home, school, and community.

Clean, safer water as a topic in other subjects	
<b>Social Studies</b>	Use a small pile of charcoal or soot, paper and a fruit. Several children come to the front of the class. The teacher asks them to imagine that one of their hands is a fly. They can make buzzing noises! The ‘fly’ lands in the soot. They then ‘walk’ their fingers on the paper and on some food. Ask: <i>What do you see?</i> Answer: Black specks. Tell: These black specks represent the germs that the fly has carried on his feet. Ask: In real life can we see the germs? Answer: <i>No</i> . Ask the children to ‘walk’ with their fingers on the fruit and then give pieces of the fruit out to other children in the class. Ask: <i>Do you want to eat it?</i> Answer: <i>No!</i> Why not? Answer: <i>Because it has germs!</i> Discuss why germs are dangerous.
<b>Science</b>	Use a powder like chalk, baby powder or flour. The children put powder on their hands and then blow on them pretending they are coughing and sneezing. Afterwards, discuss how we can stop germs from our throats and noses from spreading when we cough and sneeze. (Answer: Use an elbow or cloth in front of the face and wash hands often)
<b>Language</b>	Act out a story about how a cold spread through a class by a child sneezing.
<b>Music</b>	Practice singing the head, shoulders, knees and toes song. Ask the children to teach it to other children and explain what it has to do with hygiene.
<b>Art</b>	Make a poster on how to wash and dry utensils properly.





## Lesson 2: Clean, Safer Water

Water is essential to life and good health. Everyone needs water to drink and to bathe. Many people spend a lot of time collecting water from a pond, a stream, or a river. They may have only small quantities of water at their homes because it takes a long time to collect and is difficult to carry over long distances. When water at the home is scarce, families have to make hard decisions on how to prioritize water needs: Drinking, cooking, washing hands, bathing, cleaning the house, washing clothes, and many others.

Water can also spread disease. Even where there is enough water, if it is not safe water, it can make people sick. There are many diseases that are related to unsafe water including diarrhea, cholera, dysentery, typhoid, jaundice, worms, schistosomiasis (bilharzia), and guinea worm. Skin diseases can also occur when people do not have enough water to wash themselves regularly.

Germs that cause diseases may get into water at the source, when it is carried home, or when it is stored and used in the home. Here are some do's and don'ts to prevent germs from getting into water:

AT THE SOURCE	
<ul style="list-style-type: none"> <li>Do keep the safest water source for drinking when there is more than one source available.</li> </ul>	<ul style="list-style-type: none"> <li>Don't let people bathe, urinate, or defecate in or near water sources.</li> </ul>
<ul style="list-style-type: none"> <li>Do use protected water sources for drinking when they are available.</li> </ul>	<ul style="list-style-type: none"> <li>Don't let people wash clothes or throw rubbish in the water upstream from where water is collected for drinking.</li> </ul>
	<ul style="list-style-type: none"> <li>Don't let animals use or enter the same source of water that is used for drinking.</li> </ul>
WHEN WATER IS CARRIED HOME	
<ul style="list-style-type: none"> <li>Do clean the inside and the outside of the container every time you fill it.</li> </ul>	<ul style="list-style-type: none"> <li>Don't use a dirty container to collect water.</li> </ul>
<ul style="list-style-type: none"> <li>Do cover the container after collecting water and while bringing the water home.</li> </ul>	<ul style="list-style-type: none"> <li>Don't allow dust or dirt to fall into the water container once it's filled.</li> </ul>
	<ul style="list-style-type: none"> <li>Don't touch the water.</li> </ul>
WHEN WATER IS STORED AT HOME	
<ul style="list-style-type: none"> <li>Do use a clean container for storing water.</li> </ul>	<ul style="list-style-type: none"> <li>Don't let flies, dust, dirt, or other objects fall in the water.</li> </ul>
<ul style="list-style-type: none"> <li>Do cover the storage container with a lid, and always replace the lid after using the water.</li> </ul>	<ul style="list-style-type: none"> <li>Don't dip anything – hands, cups, ladles or cloths – in the storage container.</li> </ul>
<ul style="list-style-type: none"> <li>Do use a narrow-mouthed container to prevent dipping cups or hands into the water.</li> </ul>	<ul style="list-style-type: none"> <li>Don't put leftover water back into the storage container.</li> </ul>
<ul style="list-style-type: none"> <li>Do pour water from the storage container rather than dipping.</li> </ul>	<ul style="list-style-type: none"> <li>Don't leave the water storage container uncovered.</li> </ul>
	<ul style="list-style-type: none"> <li>Don't touch water for drinking.</li> </ul>

Water that comes from a protected source – a well, a tap, or an enclosed spring – is often both clean and safe, as long as the source is well-maintained. Water that comes from a pond, stream, lake, or river may look clean but it is not necessarily safe. The water may have germs in it even if it looks clean. Dirty water can be safe but it is unpleasant to use.

There are several ways to make water safe for use. Water can be boiled for one to three minutes to destroy all of the germs inside the water. Boiling water is a very good way to make it safe. However, it is also expensive and uses limited wood and charcoal resources. In areas with lots of sunshine, filtered water can be poured into a transparent plastic bottle and left in the sun for six hours. In this method – called solar disinfection or SODIS – the heat and light kill the germs and make the water safer to drink. There are also chemicals that can be used to make water safe. A small amount of chlorine can be used to purify water. Chlorine comes in different strengths. It also comes in liquid, tablet, and powder form. When using chlorine, it's best to follow the directions on the package to make water safe for drinking. Chlorine is an inexpensive and effective way of making water safe.

There may be other locally relevant ways in which people in your communities clean and purify water. It is important to use locally sustainable methods, provided that they are safe and advised by health workers.

Even if your water comes from a protected source, it is good practice to treat your water by boiling it, heating it in the sun, filtering, or adding chlorine to it – just to be sure!

Everyone should drink safe water all the time. It is essential that children under five are given only safe water.

## **Lesson Plan on Safe Water**

### **Lesson aim**

Children can identify safer water, explain what makes it safer, and know a locally sustainable way to make water safer.

### **Lesson objectives**

By the end of the lesson, children must be able to:

- Know the difference between clean and safer water
- Identify safer water sources
- Be able to make water safer
- Know how to store water safely

### **Lesson preparation**

Before teaching this lesson, the teacher must gain an understanding of the various water sources in the community. In addition, the teacher must gain an understanding of the measures that are taken at the household level to ensure that water is safe to drink. Teachers can get information about water practices from schoolchildren and health workers. This lesson should be taught in a cluster with the lessons on hygiene, personal hygiene, and hand washing and the lessons on school and community sanitation.

### **Lesson materials**

Prepare two glasses of water. One glass should have water that was taken from a source known to contain germs, like a pond or a river. The water should be filtered through a cloth so that it appears clear, but it should not be treated. The other glass should have water that was treated or boiled for one to three minutes, but which looks cloudy (add flour if needed).

## How to conduct a 60-minute lesson on safe water for 8-10 year olds

- 1. Question box:** Remind the children that they can put any questions they like about clean, safer water into the question box. Questions can be answered at the beginning of another class period.
- 2. Quiz (5 minutes)** Conduct this 10-question quiz before and after the lesson. Read each question aloud. Ask for a show of hands and note down the numbers of hands shown. The quiz should be very quick. When conducting the quiz before the lesson, do not give the answers.

Clean, safer water quiz (hands up if 'yes' is the answer)	
1. Is clean water always safe water? (NO)	6. Is it safe to share a drinking cup? (NO)
2. Can water be made safe by boiling? (YES)	7. If animals go into water, does this make the water unsafe? (YES)
3. Can water be made safe by leaving it in the sun? (YES – and add: in a transparent bottle for 6 hours)	8. Does water for drinking need to be covered? (YES)
4. Can water have germs in it that cause disease? (YES)	9. It is safe to touch water before drinking it? (NO)
5. Can chemicals make water safe? (YES)	10. If people throw rubbish or defecate on the ground, can germs go into the water? (YES)

### 3. Activity one: The safe water trick (10 minutes)

Place two glasses of water in front of the class of children. Ask them these questions:

- Which of these glasses of water is safe to drink? Why?
- If I asked you to come up and drink one of these, which would you choose? Why?

Make the point that it is not the look of the water that makes it safe. Then stir the safe, cloudy water and take a mouthful. Do not let anyone drink the clear, but unsafe water.

### 4. Activity two: The water pathway (15 minutes)

- Ask the children to tell the group where the water they drink at home comes from. For example: a well, a tap, or a river.
- Ask the children to tell the group about how the water is collected. For example: a pot, a can, or a bottle.
- Ask the children how the water is stored. For example: in a pot or a bottle.
- Ask the children how the water is taken from its container to where it is used. For example: poured from one container to another, a cup is dipped into the container, or a ladle is dipped into the container.
- Ask the children if there is any point on that pathway where germs could get in. For example: at the source, when the water is collected, where the water is stored, or when the water is used.
- Ask the children if their family uses a method to make the water safer (even if this is just for the young children to drink). For example: boiling, sunshine, filtering or chemicals.



## 6. Activity three: Storytelling with the class. (15 minutes)

Ask the children to retell these stories (or stories that are useful for your context), ask the children to retell the stories adding ideas of their own. This can be done orally and/or in writing. Depending on the level of the students, this activity may need to be completed in another lesson.

**The child who grew small:** *A child goes down to the river to fetch water and falls asleep on the riverbank. He dreams that he has become very tiny. Then all of the dirt in or near the water becomes very frightening to him. He battles his way through the dirt and at last wakes up. He decides he's going to make the water safe!*

**The end of a happy life:** *A family of germs has a very happy life in and around a water source. Life for them becomes more and more difficult as the children in the community begin to keep their water clean and destroy the germs. In the end what is left of the germ family has to move.*

## 7. Concluding activity (15 minutes)

Conduct the quiz from the beginning of the lesson again. After the quiz, have the children work in groups and prepare answers to one of several questions such as:

- Is clean water safe water? *No, we cannot tell if clean water is safe water unless we know it has been properly treated or comes from a protected source.*
- Do we drink safe water? *How do we know? (Local answer.)*
- What can be done to make water safe? *(Local answer.)*
- What can children do to make the water pathway safer? *Children can make sure that their actions do not make water unsafe. Children can help their families treat water by using chemicals, boiling, filtering, or using sunlight. Children can help to add chemicals at school or at home to make water safe. Children can help with a campaign to make water safer for everyone in the community.*

Invite the children to tell the group their question and the answer. Encourage the children to talk about their lesson at home and to put any questions they have in the Question Box.

## Homework activity

1. Ask the children to find out the answers to the following questions:
  - a. *Is the water I use at home safe?*
  - b. *Are the young children I know drinking safe water?*
2. Ask the children to talk to their family about clean safe water.

## Ideas to expand the lesson on safe water

- Make a chart to display the results from the homework questions.
- Have the children participate in a community-based campaign to protect water sources and to ensure that drinking water is made as safe as possible.

## Clean, safer water as a topic in other subjects

### Mathematics

- If children in the school are collecting water from a number of sources (taps inside and outside, rain water, tanks, springs, rivers, ponds, etc.), they can collect information and then make a bar chart to show where they gather the water. List water sources on the x-axis and the number of children collecting from each source on the y-axis. If water sources vary between seasons then collect data for both seasons and compare. Discuss the dangers in the water at each source and in each season.
- **More mathematics lessons:**
  - Statistics on water use: how much water we use, and how do we use it.
  - Survey how water is made safe in different households.
  - Volume and weight conversions of water containers.

### Science

- Ask the children to work with you to design and make a water filter that could work at the household level. You will need to adapt this activity for your context. Water can be filtered through sand, through fine cloth, or through muslin. Each filter will need its own design. Find a local craftsperson that can help you and the children with the design.
- **More science lessons:**
  - Collect different chemical methods of treating water available in the community. Teach children to make water safe using each method. Discuss what the chemicals do to make the water safe.

### Language

- Children can retell a story from activity three or a locally relevant story and act it out during a school assembly or community gathering.

### Art

- Children can draw a “what is wrong with this picture” poster demonstrating places in the community where water is contaminated. The children can then discuss the picture with younger children. For example, a picture may include a child defecating near the river, animals bathing in the river, water containers without lids, etc.





## Lesson 3: Hand Washing with Soap and Personal Hygiene

Each year, diarrheal diseases and pneumonia together kill almost 3.5 million children under age five in developing countries. Most of these diseases could be prevented with better personal hygiene by children themselves and their caregivers (adults and older children). Hands are the principal carriers of disease-causing germs. If widely practiced, hand washing with soap could prevent one million of those deaths. Human feces are the main source of germs that lead to diarrhea. They are the source of shigellosis, typhoid, cholera, and other common, endemic gastro-enteric infections. Some respiratory infections such as influenza, pneumonia, and other diseases, including eye infections, especially trachoma, and infection with worms are also spread through feces. Germs are passed in several ways but all these illnesses start with feces.

Cleaning hands with soap prevents germs travelling from the hands and into the body via the mouth. Hands should be washed with soap and water at these critical moments:

- *Before touching or preparing food,*
- *Before eating or feeding young children,*
- *After using the latrine or toilet themselves or after defecating in the bush*
- *After helping a young child use the toilet or latrine, and after cleaning an infant, young child, or person needing help who has defecated,*

There are other important times to wash hands, as well, such as after handling garbage, after touching animals, etc.

Hand washing with soap is a “do-it-yourself” prevention mechanism. Where soap is not available hands can be washed with ash and water. The more common practice of rinsing hands with water alone is much less effective than washing hands with soap. The germs stick to the natural oils of hands, and water alone does not get them off. Using soap removes the oils carrying most germs, and leaves hands smelling pleasant. The clean smell and feeling that soap creates is also motivating.

Proper hand washing requires soap and a small amount of water. Running water from a tap is not necessary. It is enough to use a small container of water or “Tippy Tap” (cans or plastic bottles that release just enough for a hand wash each time they are tipped). Here are the steps for proper hand washing:

1. **Wet hands**
2. **Cover wet hands with soap**
3. **Wash all parts of the hand by rubbing hands together, including palms, back, between the fingers, and especially under fingernails for about 20 seconds. Twenty seconds can be timed by singing a song like, Happy Birthday twice. Every country has children’s songs to adapt.**
4. **Rinse well with small amounts of running water rather than still water.**
5. **Dry by waving in the air or use individual clean cloths or new paper towels.**

In most households soap is available but may not be used for hand washing. It is more often used for laundry, bathing, and washing dishes. This soap can also be used to clean one’s hands. At home and at school there needs to be soap at the hand washing facilities.

Teachers and children at school raise awareness of 1) what germs are and why hand washing fights germs 2) when hands need to be washed 3) how to wash hands properly and 4) how to overcome barriers to hand washing. Some schools have “Building Tippy Tap” workshops, they get help from parents’ groups to supply soap, they create a small fund for soap. In schools, toilets and hand washing stations are critical to students’ health and to reducing absenteeism.

### Lesson plan on hand washing with soap and personal hygiene

#### Lesson aim

Children are able to wash hands thoroughly with soap for 20 seconds at the four critical times. Children can explain why this is so important and share their knowledge and skills with others.

### Lesson objective:

By the end of the lesson, children must be able to:

- Define personal hygiene;
- List at least five personal hygiene activities e.g. taking care of face, body, hair, fingernails, hand washing, wearing shoes, etc; and
- Understand challenges faced by children to practice hand washing with soap every day and understand what children can do to help solve these problems.
- Wash hands at the four critical times.

### Lesson preparation

The first activity builds on the lesson on general hygiene. Before teaching this lesson, the teacher should gain an understanding of the existing hand washing practices in the family, community, and at school. In addition, the teacher should gain an understanding of the specific challenges linked to the availability of water, the supervision of young children and the need for an access to soap and the realities behind promoting hand washing as an all day, everyday, lifelong hygiene habit.

### Lesson materials

- One large piece of paper and a marker pen are needed for each group of 5 children. If this is not possible ask the children to use a page in their notebook with a pencil or pen.
- Poster of an outline of a child. Picture (to scale) or magazine cut outs of different parts of the body e.g. face, nails, shoes, feet, eyes, ears, teeth etc.

## How to conduct a 60-minute lesson on hand washing with soap and personal hygiene for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about hand washing with soap and personal hygiene into the question box.
2. **Quiz:** Conduct before/after 10 question quiz on hygiene. Read out each question. Ask for a show of hands and note down the answers (5 minutes).

Hand washing with soap and personal hygiene quiz (hands up if 'yes' to the answer)	
1. Who knows what the phrase, personal hygiene means?	6. Do you know how long you need to wash your hands to make them clean? (20 seconds)
2. Is washing your hands personal hygiene? (YES)	7. Do you use soap every day to wash your hands?
3. Is washing the floor of a room personal hygiene? (NO)	8. Do you use a latrine?
4. Is cutting your nails personal hygiene? (YES)	9. Do you wash your body every day?
5. Is soap needed to practice personal hygiene? (YES)	10. Do you wash your face every day?

### 3. Activity one: What is personal hygiene? (15 minutes)

- Show the class a poster of an outline of a child.
- Distribute the cut out pictures (preferably to scale) of: Hair, nails, shoes, hands, eyes, ears etc. to pairs of or groups of children.
- Ask the children to discuss what they need to do to keep this part of their body clean.
- Ask all the children to draw an outline of a child in their notebooks and then draw and label parts of the body that they have to keep clean. Let them work in pairs or small groups to help each other with this task.
- Finish this activity by reminding the children that they need to keep each part of their body clean and free from germs and that personal hygiene practices are all the practices that they can do themselves to protect their health without anyone reminding them.

### 4. Activity two: How can we improve hand washing practices (30 minutes)

- Divide children into small groups of no more than 5. If you prefer this can be done as a whole class activity but the participation is better in small groups.
- Ask children to discuss in their groups: What do you have to do to wash your hands PROPERLY? Answer: Wash your hands with soap for 20 seconds and dry them in the air or on a clean cloth. Ask: when do you need to wash your hands: Answer: before eating, before preparing food, after the latrine, after disposing of feces or rubbish, (These are the four key times, but it is great if children come up with others in addition to these.)
- Ask children to copy this chart into their note books

Hand washing with soap				
Why do people not wash their hands properly	How common is this? (Score out of 5)	How serious is this? (Score out of 5)	How much can children do to solve this problem? (Write ideas and score out of 5)	Importance to us? (Total score)

- Ask the children to discuss why people in their families and communities do not always wash their hands properly and/or do not wash them at the right times.
- Ask the children to write down five ideas in the left hand column. One idea in each row.

- Ask children to discuss and then score out of 5 how common each problem is and how serious (serious means life-threatening). The children might decide that all these problems are all life threatening and this is fine. Ask them to discuss what children themselves can do (alone and together) and to give this a score out of 5. Finally ask the children to add up the scores to see which one is their top priority.
- The groups discuss how seriously each issue affects health and well-being and how common the issue is in the community they know the best.
- Here is an example of a chart when it is filled in.

Hand washing with soap				
Why do people not wash their hands properly	How common is this? (Out of 5)	How serious is this? (Out of 5)	How much can children do to solve this problem? Ideas (out of 5)	Importance to us? (Total score)
No soap	3	4	Fundraise for soap. Take it in turns to bring soap, ask shops to give soap (5)	12
Adults don't think its not important	4	4	Teach adults, ask them to buy soap and provide water (3)	11
We don't know when to wash the hands with soap	5	4	Find out about this. Make sure soap and water is near by when we need it (5)	14
No water	2	4	Make Tippy Taps to hang in the house and near the latrine (4)	10
It takes to much time	4	4	Persuade adults and children how important this is (5)	13

- Ask each group to share their results with another group and discuss their results. Ask the children to ask each other question.
- While they are doing this, look at each of the charts and decide what are the top 3 problems and solutions and write these on the black board.
- To finish the activity asks the whole class to look at the problems written on the board. Ask the children to each vote for the problem they think is the most important and the most solvable by children.

### Concluding activity (10 minutes)

Conduct the quiz again recording the numbers. Using a rapid-fire ask children to work in groups with each group preparing answers to one of several questions on personal hygiene and hand washing. Here are some examples:

**Ask:** What are the diseases a person can get if he/she is not careful about hygiene? **Answer:** Diarrhea, worms and other intestinal parasites **Ask:** What should be done to prevent these diseases? **Answer:** Always wash hands with soap/ash before touching and eating food, after use of latrine. Wash faces and other parts of body regularly with soap. **Ask:** What body parts should always be kept clean? **Answer:** Hands, Hair, Faces, Nails, Feet, etc.

### Homework activity

Invite children to talk about their lesson at home and put any questions they or their family has in the question box.

### Optional extra activity (10 minutes)

Set up a regular inspection system to check personal hygiene. This might be best done using 'buddies' or pairing and older to young children. The teacher needs to emphasise that children must not be blamed for poor hygiene. The reasons behind the poor hygiene need to be understood and the child supported to improve their hygiene practices within the reality of their family situation unless ways can be found to improve the family situation as a whole.

### Ideas to develop the lesson on hand washing with soap and personal hygiene

Hand washing with soap and personal hygiene as a topic in other subjects	
Mathematics	Children carry out a survey of the class to find out which kind of toilets they use: here is a possible list: VIP (ventilated improved latrine); pit latrine; water closet; the bush (open defecation and the most dangerous). Children make a chart of their results.
Social Studies	Children can make a tippy tap using this picture as a guide. The tippy tap is only useful when it is hung near a latrine or the place where children eat and if it is kept full of water and there is a constant supply of soap. Children can discuss how they will maintain the supplies of water and soap.
Science	Get two containers of water and two identical bowls and some soap. Get the children to form two lines. One line washes their hands with soap and the other uses water only. One child pours the hand washing water for each child in each line. The dirty water is collected in the bowls. Afterwards the water in each bowl is compared. (The water in the bowl used by the children who used soap will be much dirtier.) Ask: <i>What is the difference between the color of the water in each bowl?</i> Answer: The bowl under those who washed with soap is cloudy and dirty. (If soap is expensive Ask: <i>Can we use something else to wash our hands with?</i> Answer: Ash.)
Music	Ask the children to make up a song about a sensitive subject like using the latrine or how to clean yourself after the latrine. The children will have lots of fun making this up! Have a competition to choose the best song.
Art	Draw a poster showing a food path like meat or porridge starting with the food being cooked and ending with the food being eaten. Children can mark on the 'path' the places where germs can get into and breed in the food. Children can discuss the best ways to stop germs getting it the food at different points on the path.





## Lesson 4: School, Community, and Household Hygiene

Often when we talk about “hygiene,” we think of personal hygiene – keeping our hands and bodies clean. We can also talk about “hygiene” in terms of keeping our environment clean. Children’s ability to learn, grow and stay healthy is affected by the school environment. A hygienic school environment can improve the experience of children while a school that is not clean can lead to infection and disease. Children can play an important role in keeping their school and community clean – from helping to maintain school latrines to ensuring that they place their rubbish from snacks in a proper receptacle. Children can also become advocates for a better environment and work with adults to make improvements.

At school, children need access to safe drinking water and an adequate number of safe latrines. Rubbish and other wastes need to be managed. Classrooms and the school compound need to be clean. Children can help, but it is important that they help decide what needs to be done and how it should be done. The activities must not be considered a punishment.

Children need clean safe water to drink while they are at school and they need water to wash their hands with soap after toilet and before eating. If safe water is not available on school grounds, water must be brought to the school. Rainwater can be collected at the school and at home to increase the water supply in areas where there are shortages.

Human waste, like feces and urine, carries many diseases that can make children and teachers ill. Every school needs to have and maintain latrines for children to use. Latrines should be constructed at least 50 feet away and downhill from sources of water. Latrines should be divided for girls and boys to give children privacy. Children need to know good latrine habits and to keep the area clean, washed and tidy for all.

Dropping rubbish on the ground makes a school look dirty, spreads disease and can cause injuries. Every school needs to dispose of rubbish properly, for example a pit where rubbish can be buried or burned. Do not burn plastic or burn rubbish while children are at school. Children can learn better in clean and organized classrooms. Wash furniture, floors, blackboards and other surfaces regularly.

The land, roads, homes, plants and animals form part of the community environment. If members of the community work together they can keep their community clean. Children need to feel like they are a part of this effort. Polluting our air, water and soil causes many diseases. Close attention needs to be paid to keeping water sources clean. Ways to keep water sources clean include: not pouring oil or chemicals on the ground, keeping human and animal waste away from water sources and building latrines far from water sources.

It is best for the whole community to have a plan and work together to manage waste. Every household needs to dispose of their household and personal waste safely.

Domestic animals (like cows, goats, pigs and dogs) are important to families for work and food, but it is important to ensure that they do not spread disease. Animals must be kept away from areas where food is prepared and where people sleep. Hands should be washed after touching animals, especially before we eat. Animal dung needs to be removed from areas where we eat, sleep and work and from areas where children play. We should place the dung in a latrine or in a pit dug for that purpose.

It is important to identify and remove standing water (puddles, ditches, barrels without lids and any other water that does not move). Mosquitoes and other insects breed in standing water and can spread disease. Holes in the ground can be filled. When water is disposed of after washing, it should be poured somewhere where it can soak into the ground or be drained.

Plants give us clean air for breathing and absorb pollution from the air. Trees and plants give us shade and protect our soil, fields and crops from erosion. Trees should be planted by roads, along paths by schools and in other public places. We should care for these trees after we plant them.

# Lesson Plan on School, Community, and Household Hygiene

## Lesson aim

Children are able to identify environmental hygiene problems at the school, in the community, and in their household. Children contribute to solving those problems individually and with their peers.

## Lesson objective

By the end of the lesson, children must be able to:

- Define school, community, and household hygiene,
- Explain why good hygiene is important,
- Understand the hygiene challenges in their school, community, and household,
- Suggest three ways that children can take action to improve school, community, and household hygiene.

## Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of the common challenges relating to relating to school, community, and household hygiene (unprotected water sources, open defecation, latrines, rubbish disposal, animals, pollution, protection of water sources). These challenges will differ widely from place to place. In addition, the teacher must gain

an understanding of the current programs for keeping the school and community environment as clean as possible and what children can do to help. Cleaning the environment is sometimes used as a way to punish children (and even adults). To develop a sense of pride and responsibility, try to involve children in identifying problems and defining and implementing solutions, so that they feel a sense of pride and achievement in the improvements. Community leaders and health workers can be brought in to acknowledge the children's work and to motivate them to continue.

The opportunities chart is the main activity suggested for this lesson.

OPPORTUNITIES CHART				
Question:				
Problem	How Serious	How Common	How much can children do + examples	Score

This is because many of the children will already know what good hygiene practices are. The main focus is the practice and the challenges that the children face in taking action. This chart is a useful starting point for children to get involved in identifying problems and what they can do. If there is one topic of special interest for example, the use of latrines, use this narrower topic instead using the question – what challenges do we face in keeping our latrines clean and safe so that children in this school are happy to use them.

Copy the opportunities chart onto the blackboard. If this activity is new to you, then practice the flow of the lesson with a small group of children or with colleagues first.

## Lesson materials

The best way to conduct the opportunities chart activity is for children to work in groups and to copy their chart onto a large piece of paper with a marker pen.

## How to conduct a 60-minute lesson on School, Community, and Household Hygiene for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about school and community hygiene into the Question Box.

2. **Activity one: Question and answer (10 minutes)**

Using question and answer, remind children of the facts about school and community hygiene.

- *Question: What does school and community hygiene mean?* Answer: It means having safe water to drink and with which to wash our hands; latrines; collecting and disposing of rubbish; and keeping animals separated from people in our school, village and homes.
- *Question: What happens if our school and community are not hygienic?* Answer: If schools and communities are unhygienic then diseases spread more easily. People will fall ill and suffer.
- *Question: Are children responsible for school and community hygiene?* Answer: No, adults have the ultimate responsibility, but children have a responsibility to keep our environment clean.
- *Question: In schools and communities where there are a lot of problems with school and community hygiene what can children do?* Answer: In a whole group children can raise awareness about what they need and want to make their school and community better. Children can try to make small changes in their own home to improve hygiene practices and they can tell others to do the same.

3. **Activity two: Opportunities chart (40 minutes – this can be much longer)**

- In the whole group, or in smaller groups of four or five children, show the opportunities chart to the group and explain to the children that they will be using it to explore the topic of school and community hygiene.
- Ask each group to copy the opportunities chart into a notebook.
- The groups brainstorm up to ten points or problems in answer to the question ‘what makes our school or community unhygienic?’
- Ask the children to choose three of the most important reasons and to list these on the left side of the opportunities chart.
- For each of the three problems, have the children discuss how serious each problem is (life changing, life threatening, or not) and how common (how many people are affected as a % of the whole population?).
- The groups score each problem using a points system. For example, the chart below uses 5 = most serious/most common and 1 = least serious/least common.
- All group members have to agree on the scoring or, if this is impossible, work out an average score.
- Ask the children to think of what opportunities exist for children to help solve each challenge. Then give this a score out of 5 where 1 = a few things children can do to 5 = a lot of things children can do.
- Total the points awarded against each problem and discuss the outcome.
- Ask the children to discuss what they would need from adults to transform these opportunities into actions they could take (this is not scored).

- Ask groups to come together (if possible have groups pair up) and share their opportunities charts. Invite the new groups to make one chart together. The richness of this activity is in the discussions not the specific scoring. If the children write suggestions like 'report' or 'raise awareness', ask them to work out how to do it.
- If there is enough time and if it is appropriate, a whole group chart can then be created by putting together the most popular ideas from all the charts.

Here is an example of a chart. The children in your group will have different challenges and suggestions.

OPPORTUNITIES CHART				
What hygiene challenges do we face at school?				
Problem	How Common	How Serious	How much can children do + examples (out of 5)	Score
<b>Latrines are old and dirty</b>	<b>5</b>	<b>5</b>	<b>4</b> Find out from children what the problems are with the latrines. Children get an expert e/g a health worker to inspect them and make a checklist of things that need to be done. Children make a song and drama about the state of the latrines to present at a community meeting.	<b>14</b>
<b>The school compound is dusty and often dirty</b>	<b>3</b>	<b>5</b>	<b>4</b> Adults and children meet to discuss the problem and discuss what they can do.	<b>12</b>
<b>No trees near to the school</b>	<b>5</b>	<b>5</b>	<b>2</b> Find out if we can plant trees and how to action this.	<b>12</b>

### Concluding activity

At the end of this lesson, gather the children back into the group and ask them these questions:

- What is school and community hygiene?
- Why is it important?
- What challenges do we face in our school and community?
- What are three ways that children can take action to improve school and community hygiene?

### School, community, and household hygiene

Pairs of children can complete an opportunities chart in one of their homes with family members. They have the chart copied into their notebooks.

They can talk to the family about the challenges and solutions to school and community hygiene and bring any questions to class.



## Ideas to develop the lesson on school, community, household hygiene

School, community, and household hygiene as a topic in other subjects	
<b>Social Studies</b>	<p>Students can mount a community-based activity/campaign to promote school and community hygiene. Here are some activities to think about:</p> <ul style="list-style-type: none"><li>• Talking with community members about priorities</li><li>• Conducting a neighborhood survey about community hygiene priorities.</li><li>• Having a community/school clean up.</li><li>• Designating a rubbish pit and figuring out how to get the rubbish in there.</li><li>• Evaluating what kind of rubbish is around the school compound and how to get rid of it.</li></ul> <p>More information on developing a community-based activity/campaign can be found in the lesson on Malaria.</p>
<b>Science</b>	<p>Discuss the mosquito lifecycle. Tell children that mosquitos spend the first part of their lives in small amounts of stagnant water. One way to prevent mosquitos from growing near our houses is by making it harder for them to lay their eggs near our houses. Children can take part in an activity around the school or around their homes to get rid of standing water.</p>
<b>Art</b>	<p>If materials are available, have children make trashcans or trash baskets. They can decorate them with paint and place them around the school.</p>



Mother and daughter work at a water pump to wash vegetables at home. Save the Children School Health and Nutrition programs teach children the importance of proper hygiene practices and are encouraged to “do this at home”. Jomi Region, Khuroson District, Tajikistan.

*Chris Martin*

## Section 2:

# Infectious Diseases, Including Neglected Tropical Diseases (NTDs)

## Lesson 2: Diarrhea and Cholera

Germ that are swallowed, especially germs from feces, cause diarrhea. This happens most often in places where there is unsafe disposal of feces, poor hygiene practices, or a lack of safe drinking water. Severe diarrhea drains liquid and nutrients from the body, which kills through dehydration and malnutrition. The defining characteristic of diarrhea is watery stools. The more numerous the watery stools, the more dangerous the diarrhea is. Dehydration from diarrhea is a common cause of death in young children. Children die from diarrhea more easily than adults because they become dehydrated and malnourished more quickly.

Severe diarrhea is defined as having three or more loose or liquid stools in one day. Signs of severe dehydration, commonly caused by diarrhea, include: headache, dry mouth and tongue, no tears while crying, and loss of skin elasticity (when you pinch your knuckle, or the abdomen of a small child, the skin does not snap back). When dehydration is severe, urine discharge will be little and urine may be dark colored. Urination while dehydrated may cause burning. In dehydrated infants, the soft spot on the top of the skull (the fontanel) appears sunken. Severe dehydration makes people unable to drink and they may faint.

There are several diseases that cause diarrhea. Sometimes, when diarrhea is not severe, it will go away by itself. However, other diseases that cause diarrhea require treatment. Severe diarrhea, diarrhea that appears bloody or with mucus, and diarrhea that lasts several days should all be treated. A health professional might give antibiotic tablets to treat some cases of severe diarrhea, but tablets should not be taken without instruction from a health professional.

Cholera is a disease that causes very bad diarrhea. It can kill children in a matter of hours. Cholera spreads quickly through contaminated water or food. Cholera usually occurs in situations where there is poor sanitation and overcrowding. If a person passes several watery stools in one hour and vomits, they may have cholera. Other signs include: watery diarrhea that is pale or milky in appearance ("rice water stool"), profuse diarrhea (as much as a liter in an hour), persistent vomiting, fever, thirsty or not wanting to drink, refusing to eat, sunken eyes, and weakness or lethargy. Medical help should be sought immediately.

Some people think that drinking liquids makes diarrhea worse. This is not true. To treat diarrhea a child must drink. When diarrhea is severe, it is important to replace the lost fluids and the lost nutrients. One way to do that is by giving the child oral rehydration solution (ORS) and zinc supplements. A child should also be given safe water or other fluids – as much as the child will take, but at least  $\frac{1}{2}$  – 1 cup (250 milliliters) after each watery stool – until a health worker sees the child. If packaged ORS is not available, it can be made by mixing six teaspoons sugar,  $\frac{1}{2}$  teaspoon salt, and 1 liter of safe (treated) water. Mix the correct amounts. Too much sugar can make the diarrhea worse. Too much salt can be harmful (the solution should be no saltier than tears). Give the solution to the children in small sips or with a spoon.

In addition to ORS, a person with diarrhea can consume soups, water from boiled rice, fresh fruit juices, coconut water, or treated water from a safe source. Infants should be given breast milk more often than usual. Recommended foods for a child with diarrhea are well-mashed mixes of grains and beans, fish, well-cooked meat, yogurt and fruits. A little oil can be added to cereal and vegetables, about 1 or 2 teaspoons. Foods should be freshly prepared and given to the child five or six times a day.



After the diarrhea stops, extra food is needed to provide energy and nourishment for a full recovery. A child is not fully recovered from diarrhea until she or he is at least the same weight as when the illness began.

A person with diarrhea should never be given any tablets, antibiotics or other medicines unless a trained health worker provides the treatment.

Ways to prevent or limit the spread of diarrhea and cholera include:

1. Washing hands with soap and water (or a soap substitute, such as ash and water) after defecation, contact with feces, and disposing of rubbish as well as before touching or preparing food, eating, and feeding children.
2. Disposing of all feces and materials used for anal cleansing (including those of infants and young children) – papers, cloths, sticks or leaves – in a latrine, a toilet, or by burying so that flies and other insects cannot touch them.
3. Using safe drinking water (see Clean, Safe Water).
4. Washing, peeling, or cooking all foods.
5. Immunizing children against rotavirus (where recommended and available).
6. Vitamin A and zinc supplementation, which can reduce the risk and severity of diarrhea.
7. Exclusively breastfeeding children under six months old.
8. Getting all immunizations on time.
9. Keeping the environment and our bodies clean.

Teachers, and children at school, can do a lot to raise awareness of 1) what causes diarrhea, 2) why it is important to treat severe diarrhea as soon as it starts, and 3) how to prevent the conditions that cause it.

## Lesson aim

Children will be able to prepare and administer rehydrating drinks after episodes of diarrhea and they will know why this is important.

## Lesson objectives

By the end of the lesson the children must:

- Be able to state what causes diarrhea,
- Be able to describe the signs of someone with cholera,
- List problems caused by diarrhea,
- List four signs of dehydration,
- Be able to describe three or more ways that children can prevent diarrhea and cholera,
- Describe how to treat diarrhea at home and when to get help.

## Lesson preparation

Before teaching this lesson the teacher should find out the local names used to describe diarrhea and rehydration. The teacher should find out how the health clinic treats cases of diarrhea and how common or serious the problem of diarrhea and cholera is in the community. The teacher should also assess the availability of ORS sachets in the community. With the help of the children, the teacher could find out more about how diarrhea and dehydration are treated in the home and what people know about how it is caused and prevented. Please note that other relevant activities can be found in the lessons on preventing intestinal worms, looking after our eyes, clean safe water, and personal and school sanitation.

## Lesson materials

- A gourd or container (plastic bottle) with a small hole already cut, or a knife to cut the hole, and a cork or a stopper of some kind.
- A container and some water.
- Chalk or ash (optional).

## How to conduct a 60-minute lesson on diarrhea and cholera for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about diarrhea and cholera into the Question Box. Questions can be answered during a future health lesson.

2. **Quiz (5 minutes):** Conduct this 10-question quiz before and after the lesson. Read each question aloud. Ask for a show of hands and note down the numbers of hands shown. The quiz should be very quick. When conducting the quiz before the lesson, do not give the answers.

Diarrhea and Cholera Quiz (hands up if 'yes' is the answer)	
1. What is diarrhea? (Diarrhea is loose or watery stool. Severe diarrhea is three or more loose or watery stools in a day.)	6. Can children help prevent diarrhea? (YES, by washing their hands after defecating and before touching food and by disposing of feces properly.)
2. Who thinks they have had diarrhea?	7. What is dehydration? (Dehydration occurs when the body loses more fluids, mostly water, than it takes in.)
3. Can diarrhea be caused by dirty hands? (YES)	8. Do you know the signs of dehydration? (Increased thirst, dry mouth, confusion, fainting, decreased urine.)
4. Can diarrhea cause a child to die? (YES, diarrhea can cause dehydration, which can cause a child to die.)	9. Do you know what a child with diarrhea needs to get better? (Fluids must be replaced. Safe water, soups, and juices are good.)
5. Can a child die from lack of water in the body? (YES)	10. What is ORS? (Oral Rehydration Solution – a sugar-salt solution that helps to recharge the body during severe diarrhea.)

### 3. Activity one: Question and answer (15 minutes)

Ask the children basic questions and then give them the answer. Using gestures for the concepts of *swallowing*, *diarrhea*, *dry tongue*, and *non-elastic skin* will make the activity fun and help the children remember better.

- Question: What causes diarrhea? Answer: Diarrhea is caused by germs being swallowed especially germs from feces.
- Question: What are signs of severe diarrhea (diarrhea that needs medical attention)? Answer: Bloody stool, mucus in the stool, three or more loose stools in one day, and diarrhea lasting more than three days.
- Question: What problems are caused by diarrhea? Answer: Dehydration and malnutrition.
- Question: What are the signs of dehydration? Answer: Dry mouth, skin is not elastic, headaches.
- Question: What ways can you prevent diarrhea? Answer: 1. Washing hands with soap at key moments (Before eating, before preparing food, after defecating, after assisting someone – child, sick person – to defecate) 2. Washing, peeling, or cooking food, 3. Drinking safe water, 4. Disposing of feces safely and using latrines, 5. Preventing flies touching the mouth, drinking water, and food, 6. Covering latrines, 7. Using clean plates and utensils to eat from and to cook with.
- Question: What are three signs of cholera? Answer: The three signs are 1. More than three stools in one hour (or all the time), 2. Fever, and 3. Weakness.



- *Question: What can you do for someone with diarrhea?* Answer: Make sure they drink as much liquid as they lose and eat nutritious food. Help prepare ORS and help the person to drink it. Recognize the signs of cholera or severe diarrhea and get help as needed.

#### 4. Activity two: Understanding diarrhea and dehydration using a gourd doll/bottle doll (20 minutes)

- Take your group of children outside and ask them to sit or stand in a circle around you.
- Explain to the children that in this lesson we are learning about diarrhea and cholera, which cause dehydration. It is dehydration, not diarrhea itself, that kills people. Diarrhea is a mix of feces, liquid, and important nutrients. It is dangerous to have too little liquid in the body. To help the body get better the most important treatment is to put enough liquid into the body to make up for the liquid leaving the body.
- Show the children the small hollow gourd (or an old ball or bottle will do). Draw a face on the bottle or gourd and give it a name. This adds to the fun.
- Make a hole in the top of the gourd and a small hole with a stopper in the bottom.
- Fill it with water and cover the opening at the top with a small thin small cloth.
- Pull the stopper out and let the children notice how the cloth sags down into the hole.
- *Ask the children: How does this doll compare with a baby with diarrhea?* Answer: The soft spot on the head goes down and liquid comes from the body.
- Mark a line on outside of the hollow gourd. Tell the children that water should not fall below this line or else the gourd will be empty.
- Ask for three volunteers: one to hold the doll, one to fill it and one to pull out the stopper.
- Ask the child with the container of water to fill the gourd to the mark. Ask the other child to pull out the stopper. The child who is filling must fill again and so on. This will cause much laughter and fun.
- *Ask the children: What is the message from this experiment?* Answer: The water that is lost from the body must be replaced.
- Reinforce this message by saying that a child needs a clean cup full of safe water each time he passes a watery stool.
- Children can work together in pairs to write about this experiment in their notebooks as homework or during their science lesson.

#### 5. Activity three: Preventing diarrhea, the handshaking game (20 minutes)

- Ask one child to cover his or her hands with chalk or soot. This child is “infected.”
- Ask this child to shake hands with two others. These two are now “infected.”
- The three “infected” children now shake hands with two more each. We now have six more infected children.
- The nine children shake hands with two more each. We now have eighteen more “infected” children.
- The 27 “infected” children shake hands with the children who are left.
- *Ask: What does this handshake game tell us?* Answer: How quickly infection is spread, and that infection can spread through dirty hands. *Ask: Can we see germs like we can see chalk (or soot)?* Answer: No. *Ask: What is the best way to stop germs spreading?* Answer: Washing hands with soap for 20 seconds.
- Remind the children that washing hands with water or for a short time does get rid of germs from hands. Remind the children that diarrhea germs and cholera germs spread very quickly.
- At the end of the activity, all children should wash the “germs” from their hands with soap and water.

Please Note – when chalk or soot is not available you can do this game by asking the children to bend their thumbs to show they are infected.

## 6. Concluding activity (5 minutes)

- Conduct the quiz again recording the numbers.
- Invite children to talk about their lesson at home and put any questions they and their family have about diarrhea and cholera in the question box.

## Homework activity

1. Ask children to make a gourd doll at home and show their families what they learned. Ask children if their families had any questions during the following day's class.

Diarrhea and cholera as a topic in other subjects	
Mathematics	Teach children about ratios. Get them to draw or actually measure out 0.5 teaspoon salt to 6 teaspoons sugar to 1 liter water – the correct recipe for household ORS.
Social Studies	The teacher and the children can make or bring in different rehydration drinks. Examples include: safe water mixed with the packets of salts and sugar (ORS – if they are freely available), the water from boiling rice, green coconut water, diluted yoghurt drinks, squeezed fresh juice, thin soup, etc. Children can set these out and taste them. Then do a survey of the preferred drinks.
Science	<p>Children put two cut flowers or plants into separate containers. They fill one with water and leave the other dry. Each day for the next week, ask the children to draw and observe what happens to the two plants. Ask children why the one without water died. Water is key to life. People and plants cannot live without it.</p> <p>Teach children how to make the ORS drink:</p> <ul style="list-style-type: none"><li>• Place 6 level teaspoons of sugar and a half a level teaspoon of salt into one liter of clean water.</li><li>• Allow the salt and sugar to dissolve.</li><li>• Tell the children to be very careful to mix the correct amounts, as too much sugar can make the diarrhea worse and too much salt can be extremely harmful to the child.</li><li>• If the mixture is made a little too diluted no harm can be done and there is very little loss of effectiveness.</li></ul>
Language	Children make a snakes and ladders game on the topic of preventing the spread of diarrhea. We can use these ideas for good hygiene messages (“ladders”) and examples of bad hygiene practices (“snakes”).
Music	Children make a song about the need to keep drinking when a child has diarrhea. It could be titled what comes out must be replaced! Children can have some fun times inventing hand gestures to go with the song!
Art	In pairs or groups, children make posters showing the journey of a germ from feces to the stomach of a person via flies, food, unclean plates, etc.



## Lesson 6: Soil-Transmitted Helminths and Bilharzia

Infection by intestinal parasitic worms, or soil-transmitted helminths, is widespread throughout the world. Millions of people are affected by intestinal parasitic infections. Three of the most common types of worms that infect children are roundworm, whipworm, and hookworm. These worms live in the intestines and their numbers build up through repeated infection. Some people believe that worms are beneficial and help the body digest food. This is not true. Worms are dangerous and cause serious illness.

Worms cause a number of health problems. The different types of worms cause different symptoms. Children with a few worms may not have any symptoms. With heavier infections, children with one or more kinds of worm may experience the following symptoms: loss of appetite, a swollen or painful stomach, coughing, fever, vomiting, diarrhea, weakness, and a general feeling of being unwell. Intestinal worms can also lead to anemia. Hookworm causes bleeding in the intestines and loss of blood, making it of particular concern in relation to anemia. Heavy infections of roundworm can cause a person to have difficulty with defecating or to not be able to defecate.

Worms can also cause malnutrition. Worm infection may cause a loss of appetite, causing a child to eat less. Worm infection may also prevent food being absorbed properly once it has been eaten. Children with large numbers of worms may be stunted and underweight.

People become infected with intestinal worms through contact with soil that has been contaminated with human feces from an infected person. People are infected by roundworm and whipworm by ingesting worm eggs either by eating contaminated food (e.g. fruits or vegetables that have been watered or washed with water containing contaminated soil) or by eating contaminated soil unintentionally. People become infected with hookworm when the larvae burrow through the skin of bare feet. Children get infected with worms easily and often have far more worms than adults.

Treatment for intestinal worms is simple, cheap, and effective. It takes a single dose of medicine (albendazole or mebendazole) to kill the adult worms in an infected person. Treatment is given by doctors, health workers, or by teachers who have been trained to treat children at school. Treatment for worms and schistosomiasis (bilharzia) can be done at the same time. In areas where reinfection is likely to occur, treatment should take place once a year, or every six months. The frequency of treatment will be determined by the health worker. Treating for worms brings many benefits to the children and the local community, as children can infect others.

Schools, teachers, and children can be at the forefront of the fight against worms by promoting healthy behaviors such as:

- **Washing all fruits and vegetables in clean water before eating (to prevent roundworm and whipworm infection),**
- **Wearing shoes or slippers (to prevent hookworm infection),**
- **Ensuring that vegetables are watered from sources that are not contaminated by human feces,**
- **Defecating in a latrine or for young children in a pot,**
- **Helping young children to defecate in a pot, which can then be emptied into a latrine, rather than in the bush or around the home or school,**
- **Drinking and using safe water,**
- **Washing their hands with soap after using the latrine, after playing in dirty soil, after farming or gardening, and before preparing or eating food.**

In an area where schistosomiasis is a common problem, conduct two lessons: one on intestinal worms and a follow up lesson on schistosomiasis. Further background information on schistosomiasis and ideas on how to conduct a lesson on schistosomiasis are provided at the end of this lesson on Soil-Transmitted Helminths.

## Lesson Plan on Soil-Transmitted Helminths

### Lesson aim

Children are able to adopt healthy practices that prevent the spread of intestinal worms, demonstrate these healthy practices to others, and ask for help/seek treatment if they notice signs of a worm infestation.

### Lesson objectives

By the end of the lesson, children must be able to:

- List the types of worms that infect children,
- State two symptoms of worm infestation,
- List three ways to prevent worms.

### Lesson preparation

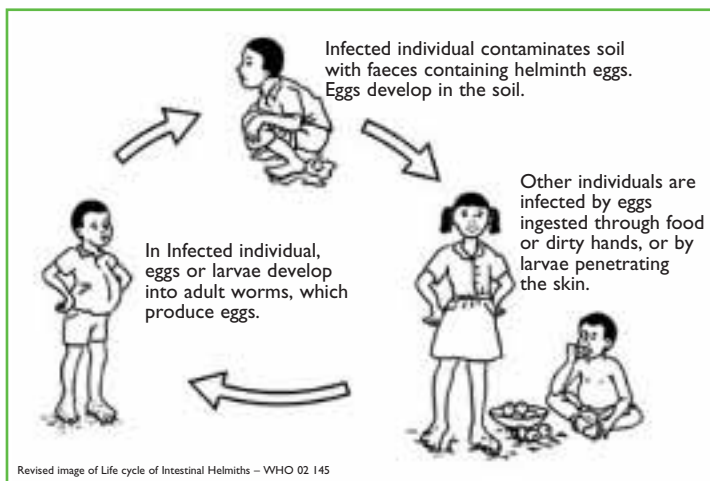
To prepare, the teacher can gain an understanding of how common and how serious the problem of intestinal worms is in the community by speaking with health workers. It is useful if the teacher understands something about the programs for preventing and treating children with worms. For example, are there any school-based de-worming programs? The teacher may enlist children and, if possible, health workers to collect information about the scale of the problem of worms in the community and the probable reasons for repeated infections.

Before the lesson, the teacher should draw the picture for activity one, which depicts how hookworm is spread, on a large piece of paper. Adapt the picture so it is appropriate for the local context.

Additionally, the teacher should copy the story of Shyam and Ram (or another locally-specific story) for children to read out loud.

### Lesson materials

- The picture about the spread of the hookworm.
- The story of Shyam and Ram for one or two children to practice.





## How to conduct a 60-minute lesson on soil-transmitted helminths for 8-10 year olds

- 1. Question box:** Remind the children that they can put any questions they like about soil-transmitted helminths into the Question Box. Questions can be answered during a future health lesson.
- 2. Quiz (5 minutes):** Conduct this 10-question quiz before and after the lesson. Read out each question. Ask for a show of hands and note down the numbers of hands shown. It is supposed to be very quick. Do not give the answers.

Quiz On Soil-Transmitted Helminths ( <i>hands up if 'yes' to the answer</i> )	
1. Are there worms that can live in your body? (YES)	6. Does washing your hands help prevent worms? (YES)
2. Can you get worms from eating unwashed fruits and vegetables? (YES – if they are not washed before they are eaten)	7. Is the treatment for worms expensive? (NO)
3. Can you catch worms by walking without shoes? (YES)	8. Do young children catch worms more easily than older children? (YES)
4. If there are worms in a person's body, can they cause malnutrition? (YES)	9. Does using a latrine prevent worms? (YES)
5. Do children with lots of worms grow well? (NO)	10. Can children be treated for worms at schools (YES, there are many school-based de-worming programs. Remind children of deworming day)

### 3. Activity one: The spread of the hookworm (30 minutes)

- Show the children the picture of how hookworm is spread from one child to another through open defecation.
- In small groups, or in the whole group, children discuss what is happening in the picture.
- In groups of three, ask children to act out what is happening in the picture by using a pair of children to do the actions and a third to explain what is happening.
- Select one or two groups to demonstrate their actions for the whole group. Discuss with the children what is happening in each skit.

Explain to the children that hookworm is just one type of worm that gets into our bodies and makes us ill. Explain that many types of worms like to live for part of their life inside a long tube inside us where our food is digested, called the intestine, and this is why these worms are called intestinal worms. Hookworm gets into our body through our skin and other types of worms get in when we: eat unwashed food, eat food which has been watered using dirty water, don't wash our hands after defecating or before eating. Young children get worms easily by putting their dirty hands in their mouth and by crawling on dirt that can contain worm eggs. Tell the children that treatment is quick and easy and can be done in schools or at the health center.

#### **4. Activity two: Questions and answers (10 minutes)**

Go through these questions with the children, giving them the answer:

- *Question: How do worms make us ill? Answer: They live off us, by taking the food or sucking the blood inside us*
- *Questions: How do we get worms? Answer: By swallowing the eggs of worms such as the large roundworm; when the larvae of hookworm from the soil burrows through the skin; by eating larvae of worms such as tapeworm which in some meat that has not been cooked well or on the skin of fruit and vegetables*
- *Question: How do we prevent worms? Answer: By using a latrine; by washing hands with soap for long enough before preparing and eating food and after defecating; by regularly taking deworming treatment. Deworming treatment has the dual effect of treating worm infection and also preventing the spread of worms through defecation.*

#### **5. Activity three: The story of Shyam and Ram (10 minutes)**

This story is an example story. It should be adapted to make sense in your context. Adaptation includes changing the characters' names, changing the environment, and choosing an infection path that is relevant to the context.

Ask a child or children to read this story out loud and ask the other children to share with the whole group what the story teaches us about worms.

##### **Worms that Stopped Shyam from Attending School**

*There were two children called Ram and Shyam in a village. They were students at the same school, and they were close friends. They used to play together after returning from school. Ram wore sandals while Shyam went without shoes, walking barefoot. Ram always washed his hands before eating, but Shyam never did. Ram's parents were well informed about washing hands before eating and after using the latrine, and washing arms and legs with soap water regularly. Ram's parents also taught him that good personal hygiene is necessary to prevent hookworm. Shyam's parents did not have the same knowledge, so they could not teach Shyam those things.*

*One day, Shyam became ill. He tried to keep going to school, but he had a stomach ache, and he did not want to eat. He was tired, and it was hard for him to concentrate.*

*The students were learning about health in school, and one day their teacher taught them about worm infestation. Shyam thought that his stomach pain could be due to worm infestation. Shyam told his parents what he had learned in school, but his parents did not trust him and they thought that his illness was caused by other reasons. He was given herbs and tea made from tree leaves as a cure, but he kept getting sicker. Over time his stomach became larger, and he felt so sick that he could not go to school.*

*The teacher visited Shyam's home to find out why he was not in school. She listened to his parents describe the symptoms and asked them to consult health center. The parents did not trust the teacher at first, but they agreed to go to the health center because Shyam was so sick. After a test at the health center, Shyam was diagnosed with a worm infestation. He took a pill that helped him get rid of all the worms. The health officer talked to Shyam and his parents about the causes of worm infestation and how to prevent it. Now Ram and Shyam go to school together, do not walk in barefoot, wash their hands with soap water after playing games, and after using the latrine. Now Ram and Shyam can play and learn together because they are healthy.*

## 6. Concluding activity (5 minutes)

Conduct the quiz again recording the numbers. Invite children to talk about their lesson at home.

## Homework activity

Ask children to spread messages about what causes worms and how to prevent the three most common types of worms to their family members at home, particularly their younger siblings.

Children can ask family members about which prevention action is most difficult to action.

## Ideas to develop the lesson on soil-transmitted helminths

- Make a chart to display the results of finding from the homework.
- Children can interview their friends or family members find out how much they know about worms asking questions such as: *Who in the group has had worms? How did they feel? Have you seen worms? Why are young children more likely to get worms? (They crawl on the ground, put things in their mouth, eat soil, and suck their fingers or thumbs.) Do you have a latrine at home? Do you use it? Who looks after it? Does everyone who uses it wear shoes?*

The children can report, display, and analyze their survey results using tally charts and pictograms. Children can identify problems and their causes, suggest small doable actions to solve the problems, and plan for the implementation of the activities. Children plan and take action based on what they found out from the results of the survey.

Soil-transmitted helminths as a topic in other subjects	
Mathematics	Carry out a survey of the toilets used by the class (flush, VIP, pit latrine, the bush). Children can carry out a survey of what different households use, chart their results, and present the “sanitation survey of our community” to community leaders.
Social Studies	Children can discuss why adult size latrines are unsuitable for small children. For example: the latrine is some distance from the house; the hole is too large; it is a frightening place for a young child even if an older child goes too. Small children need a mini latrine built especially for them. It should have a small hole about 10 cm in diameter and should be near the house. This latrine will last for 2-3 years before the pit fills up. When it does a new pit can be dug. School age children can learn how to make a mini-latrine in the school compound. They can measure and dig it and make a mold for the plate. A teacher or parent can help and supervise.
Language	Children can write or tell a story to spread awareness about the causes of the four common worms and ways to prevent worms.
Art/Music	Make posters and picture stories or songs about: <ul style="list-style-type: none"><li>• Taking children to the clinic for de-worming treatment, &amp;</li><li>• Keeping the places we sit, learn, and eat clean and free from flies</li></ul>
Science	Discuss the life cycles of other types of worms. Teachers can get the details of the life cycles from a local health worker, or the teacher may choose to have the health worker come talk to the class.

## Bilharzia (Schistosomiasis)

Bilharzia, also known as Schistosomiasis, is a disease caused by a type of worm. It leads to chronic ill health. More than 700 million people live in places where the fresh water has schistosomiasis larvae (young worms). Schistosomiasis is a disease that mostly affects rural communities who live near contaminated water. However, children living in urban areas may be affected if they visit their village homes where the water source is contaminated.

People become infected with schistosomiasis when they come into contact with fresh water that has been contaminated with urine or feces from another person infected with schistosomiasis. Being in contact with water includes wading, bathing, or swimming in ponds, rivers, or lakes.

Schistosomiasis worms live in blood vessels around the bladder (urinary type) or the intestines (intestinal type). People with schistosomiasis may notice red or pink urine, which is caused by schistosomiasis eggs breaking through the walls of the bladder or intestines. Eggs are passed out with the urine or feces. If the urine or feces end up in water, then the eggs hatch into small active larvae. These larvae then infect suitable fresh water snails and they multiply inside the snails. A second type of larvae is then released from the snails, and these larvae swim freely in water. If the larvae come into contact with the skin of a person they burrow through the skin into the body. Once in the body, they go to the liver where they grow and develop.

The eggs mainly damage the liver, intestines, lungs, kidneys, bladder and other organs. People with light infections of schistosomes may not notice any symptoms. With heavier infection, the most common symptoms for the urinary type include: pain on urinating, lower abdominal pain, blood in the urine (especially in the last few drops), and general weakness. For the intestinal type symptoms include: fever, abdominal pain, diarrhea with blood and mucus (slimy substance) in the stool, loss of appetite, general weakness, and enlargement of the liver and spleen. In children, if schistosomiasis is not treated infections can lead to growth retardation, absence from school, and decreased school performance.

Schistosomiasis is safely and effectively treated with medicine (praziquantel) by a doctor, health worker, or by a specially trained teacher. It is a serious disease and must be treated to avoid the consequences of infection.

Teachers and children can help prevent themselves and others becoming infected. Key messages include:

- Urinate and defecate in latrines/toilets and not in open spaces, the bush, or near water – do not urinate in the water while swimming or bathing.
- Avoid walking through water or swimming and bathing in rivers, streams, ponds, or water that may be infected.
- If you notice the signs of schistosomiasis – go to a health clinic quickly.

## Lesson on Bilharzia (Schistosomiasis)

### Lesson aim

Children know how to prevent the spread of Schistosomiasis and in particular that they must use a latrine.

### Lesson objectives

By the end of the lesson, children must be able to:

- Know what is Schistosomiasis,
- Know how Schistosomiasis spreads,
- Know how to prevent Schistosomiasis,
- Understand that one might be infected even without obvious symptoms and one should get treated for Schistosomiasis on deworming day (even if without symptoms).

### Lesson preparation

Before teaching this lesson on schistosomiasis, the teacher should gain an understanding of the lifecycle of schistosomiasis and how common and how serious the problem is in the community. In addition, the teacher must gain an understanding of the programs for preventing infection and treating children with schistosomiasis from a health worker. For example, are there any school-based deworming programs? The teacher, working with children and health workers, can collect information about the scale of the problem and the probable reasons for repeated infections.

Draw a picture of ways that schistosomiasis spreads in your community, including reasons why infections may be repeated. Instead of one picture showing all the ways schistosomiasis is spread, each way may be portrayed on separate pictures.

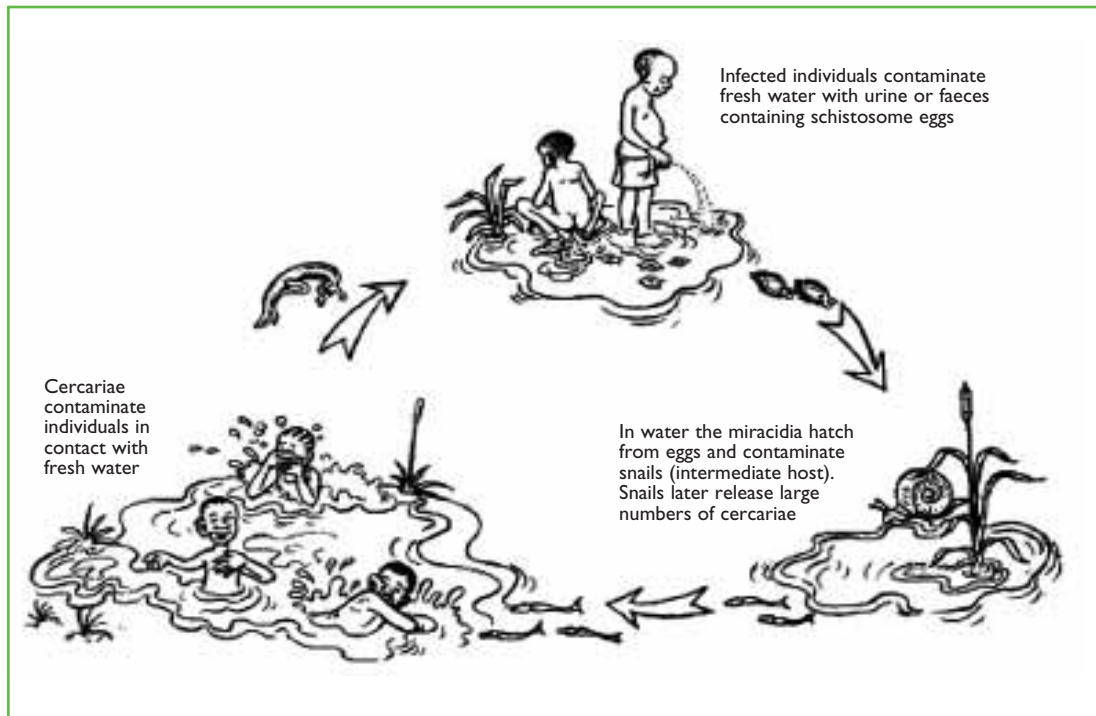
Write, and illustrate if possible, three flashcards showing the steps in the lifecycle:

1. Parasitic eggs are released into water through feces and urine. Parasitic eggs live in fresh water.
2. Larvae, called miracidiae, hatch from the eggs then seek out certain species of snails. The miracidiae infect the snails and then multiply, producing larvae called cercariae.
3. The cercariae are released into the water and burrow through a person's skin when he or she is in the water. The larvae multiply in the blood of the liver, bladder, and intestines, and are released again when the person urinates or defecates.

### Lesson materials

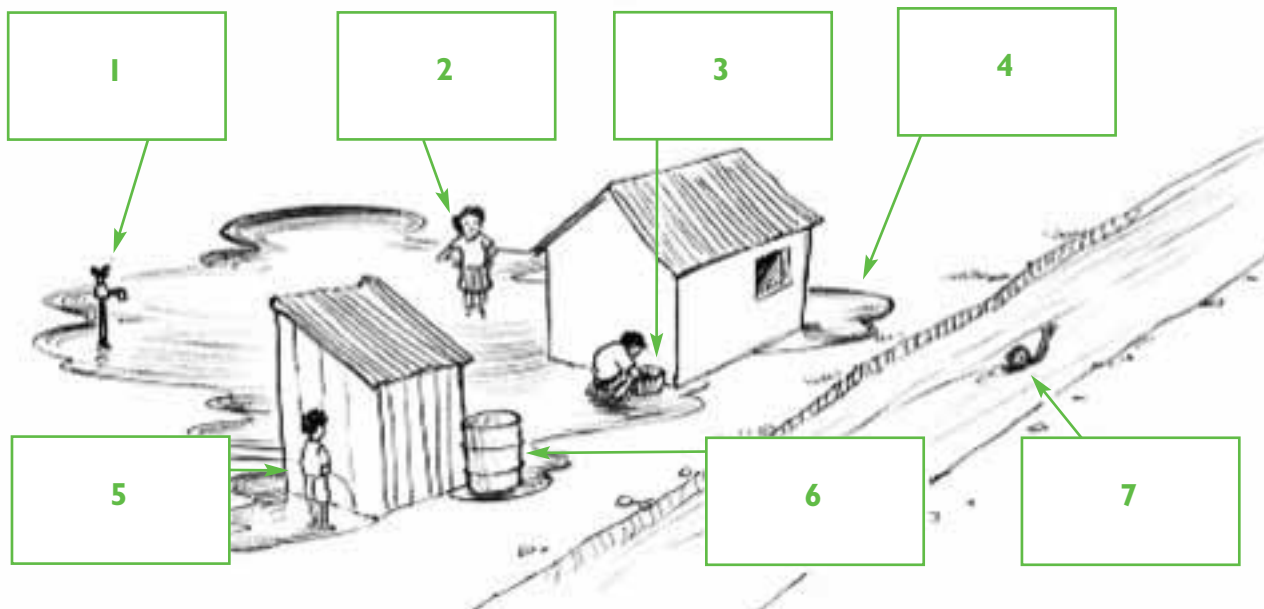
- Flashcards showing the lifecycle of schistosomiasis with one step on each flashcard for Activity 1.
- A picture that shows the probable reasons for repeated infections. Before the lesson the call out boxes are blank for Activity 2.

## Lifecycle of Schistosomiasis



World Health Organization





## How to conduct a 60-minute lesson on schistosomiasis (bilharzia) for 8-10 year olds

### Activity one: Lifecycle of schistosomiasis (30 minutes)

1. Using the flashcards to show the children, the teacher describes the lifecycle of schistosomiasis. There are some difficult words but children of this age will enjoy learning the words, how to spell them, and the order they come in!
2. After explaining the lifecycle a few times give out the flashcards to the children. Ask the children to arrange themselves in the correct order with ideas from the whole class. Repeat this until you are confident that most children understand the lifecycle.
3. Ask the children who are very confident that they know the words and the lifecycle to put up their hands. Pair these children with those who do not feel so confident (or put them into small groups of three). Together the pairs draw and write a diagram of the lifecycle in their notebooks.

### Activity two: Preventing repeated schistosomiasis infections (20 minutes)

1. Show the children a picture, such as the one above, that illustrates several reasons why there are repeated infections of schistosomiasis in the community. Make sure the numbered call-out boxes are blank.
2. Ask the children to examine the picture and to describe what the problems are.
3. Ask children in pairs, or small groups of three or four, to write one reason for each call-out box on a small slip of paper, where each reason corresponds with the number on the call out box.
4. In the whole group, ask children to about their answers and select one to stick into (or write into) the call out box.
5. If treatment is available from the school or at a health clinic, at the end of the activity tell the children about the treatment for schistosomiasis. Encourage them to tell their families about the lifecycle and the reasons why there are repeated infections in the community.

### Concluding activity (10 minutes)

Ask the group what they have learned from the activities and what they feel are the most important actions that children can take to prevent schistosomiasis. For example: using a latrine to break the lifecycle, encouraging others to do the same, and taking the medicine on deworming day.



## Lesson 7: Coughs, Colds, and Pneumonia

Everyone gets coughs and colds. Young children get more coughs and colds than older children (between three and eight colds every year), because their immune systems are still developing. Most coughs and colds get better without special medicine, but sometimes colds turn into pneumonia. Millions of children die of pneumonia every year. The clearest signs of pneumonia, which everyone can learn to recognize, are rapid breathing and chest in-drawing. Pneumonia requires immediate treatment with medicine given by a doctor or health worker. Breastfeeding or nutritious food (depending on the age of the child), a smoke-free home, and immunization against whooping cough can all help prevent pneumonia.

Coughs, colds, and pneumonia are all infections of the respiratory tract. The respiratory tract is the part of the body that air enters when we breathe. The air enters through the nose and the throat and then it goes through the windpipe to the lungs.

Viruses and bacteria cause coughs and colds. Viruses cause colds, and the infection is in the nose and the throat. The signs of a viral infection are: a runny nose, a blocked nose, a cough, and sometimes, a sore throat. Medicines cannot make a viral infection better. The best way to treat a cold is by keeping warm (not hot), by drinking fluids (like soup and juice), resting, and by keeping the air clean and smoke-free. You can prevent spreading a cold to others by sneezing or coughing into your hand (which then must be washed with soap), your arm, or a handkerchief to minimize the spread of the virus. It can be soothing to breathe in water vapor (steam) from a bowl of hot water. Breathing tobacco smoke and cooking smoke while you have a cold may cause a cold to turn into pneumonia.

Pneumonia is a very serious illness, which is usually caused by bacteria or viruses. Antibiotic medicine can cure pneumonia and helps save lives. Babies are more likely to get pneumonia than older children. Children who are breastfed for at least six months, and then breastfed with complimentary foods, and young children who are well-fed are less likely to get pneumonia. Measles and whooping cough, both of which can be prevented by immunization, can cause pneumonia. Hib vaccine is available in many countries & PCV is becoming increasingly available. These vaccines can prevent two of the most common types of bacterial pneumonia (due to *Haemophilus influenzae* type B and pneumococcus).

The clearest signs of pneumonia are coughing or difficulty breathing, combined with quick breathing. A baby between 2 and 11 months old with pneumonia takes 50 or more breaths per minute (sometimes up to 70 or 80). If a caregiver counts 50 or more breaths a minute, it is a sign that a 2 to 11 month old infant may have pneumonia. A health worker should assess the child as soon as possible. Similarly, an infant under 2 months old who takes 60 or more breaths per minute should also be taken to a health worker as soon as possible. For children between 2 and 5 years old, rapid breathing needs attention when there are 40 or more breaths per minute. In addition to rapid breathing, caregivers should also note the following warning signs: the child is gasping for air; the lower part of the child's chest is drawing in when the child breathes; when the child will not drink or breastfeed; when a child's cough has gone on for more than two weeks; or when a child vomits frequently.

Schools, teachers, and children play several roles with coughs, colds, and pneumonia.

- Pass on the messages that most coughs and colds get better on their own and that most medicines sold for coughs and colds are useless and may be harmful.
- Recognize the danger signs of pneumonia.
- Advocate for urgent attention from a health worker for a family member with signs or symptoms of pneumonia.
- Learn that children need a good diet and a healthy, smoke-free environment to prevent pneumonia and to help them recover.
- Help ensure that young children are breastfed, well nourished, and protected by adequate vitamin A and immunizations.
- Resist pressure to start smoking and help other children to do the same.

## Lesson Plan on Coughs, Colds, and Pneumonia

### Lesson aim

Children will know how to reduce the spread of coughs and colds and be able to recognize when a young child is breathing rapidly. They will recognize the danger signs of pneumonia and understand which signs require urgent attention from a health worker.

### Lesson objectives

By the end of the lesson, children must be able to:

- Know that most coughs and colds can get better without special medicine;
- Know to keep a child with a cough and cold warm and to keep a child with a fever cool, not cold; and
- Know that pneumonia is a viral or bacterial infection, which makes young children breathe rapidly and needs immediate medical treatment.

### Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of how common and how serious the problem of pneumonia is in the community. If possible, the teacher will speak with the health worker to gain an understanding of the signs of pneumonia and how children can help identify and prevent it.

The teacher needs to collect materials to make one or more pendulums (string, stones, and rulers or tape measures). The teacher may want to draw the structure of the table for activity three on the board. Leave the table blank; write the words in at the start of the activity.

### Lesson materials

- One or more pendulums made from 250 centimeters of string and a stone (or the materials for groups of children to make their own). Rulers and pens are also required. The teacher may choose to make a demonstration pendulum in advance by following the instructions in activity two. It is better to let the children to make their own pendulums. The children can then demonstrate the pendulum at home to teach friends and neighbors about the signs of rapid breathing.

## How to conduct a 60-minute lesson on coughs, colds, and pneumonia for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about cough, colds, and pneumonia into the question box. Questions can be answered during a future health lesson.

2. **Quiz (5 minutes):** Conduct this 10-question quiz before and after the lesson. Read each question aloud. Ask for a show of hands and note down the numbers of hands shown. The quiz should be very quick. When conducting the quiz before the lesson, do not give the answers.

Coughs, colds, and pneumonia quiz ( <i>hands up if 'yes' is the answer</i> )	
1. Are coughs and colds dangerous? (No)	6. If a baby is breathing very fast, do you know what the adults need to do with him or her?
2. Can you get much more ill if you have a cough or cold in a smoky place? (Yes)	7. Can breast feeding help to prevent coughs and colds? (YES)
3. Can we take medicines to cure most coughs or colds? (NO, they'll go away on their own.)	8. Have you heard of an illness called pneumonia?
4. Are most coughs and colds caused by viruses? (YES)	9. If a person has pneumonia, do they need medicine? (YES)
5. If a baby is breathing very fast, is this a danger sign? (YES)	10. Does a child with a fever need to be kept warm? (No)

3. **Activity one: Question and answer (15 minutes):** Using question and answer, teach the children facts about coughs colds and pneumonia.

- **Question:** What are the signs of a cold? **Answer:** a runny nose, a headache, sneezing, sometimes a sore throat.
- **Question:** Can medicines help to cure a cough or a cold? **Answer:** NO, most colds and coughs are caused by viruses. Viruses cannot be cured using medicines. Some medicines, however, may help to alleviate symptoms while the virus naturally runs its course.
- **What is pneumonia?** **Answer:** Pneumonia is an infection in the lungs that can make you very sick.
- **What are the signs and symptoms of pneumonia?** **Answer:** Rapid breathing is a sign of pneumonia. Fever or teeth-chattering, a cough with greenish mucus or tinged with blood, chest pain that feels worse when you cough or breathe in, and nausea and vomiting are all additional signs of pneumonia.
- **Question:** What causes pneumonia? **Answer:** Viruses and bacteria cause pneumonia.
- **Question:** How does a person get pneumonia? **Answer:** Pneumonia is an infection that can develop when the body is not strong or when a person has another disease like whooping cough (pertussis) or measles. It can begin with a cold that gets worse by living in a smoky environment.
- **Question:** Is pneumonia dangerous? **Answer:** Yes, pneumonia can be very dangerous. It is especially dangerous for babies and elderly people.

- *Question: If you spot the signs of pneumonia, what should you do?* Answer: Get help from a caregiver or a health worker. The person with pneumonia should be taken to a health worker as soon as possible.
- *Question: How can we prevent or reduce pneumonia?* Answer: Eating a healthy diet can prevent pneumonia. Breastfeeding babies for least 6 months reduces their chances of getting pneumonia. Avoiding smoky or dusty rooms during a cold helps to prevent a cold from becoming pneumonia. Immunization against pneumonia, whooping cough (pertussis), and measles also prevents pneumonia.

#### 4. Activity two (20 minutes):

1. Have the children choose a partner with whom to do the exercise.
2. Ask each pair to measure 250 centimeters of string and cut it.
3. Tie a stone securely to one end of the string, using no more than 40 centimeters of string to do this.
4. From where the stone is tied, measure two meters to the end of the string and put a mark in pen. Do the same measuring one-meter to the end of the string. Do the same measuring 35 centimeters. At each of the marks tie a small knot.
5. Ask one of the children to climb onto a table or chair and to swing the pendulum back and forth, holding it at the two-meter knot.
6. The child's partner breathes in time to the pendulum swinging, breathing in when the pendulum moves backwards and breathing out when the pendulum moves forward.
7. Ask the children to trade positions. Repeat the activity with the second child holding the pendulum at the one-meter point with the partner breathing in time to the swing.
8. Swap again and repeat using the 35-centimeter knot. This time the children's breaths will be very rapid.
9. Tell the children to repeat all three swings once more so that each child has had a go at demonstrating and breathing to the swing of each length.
10. Ask the children what they notice about the relationship between the length of the string and the swing (the shorter the string the more rapid the breaths).
11. Tell the children that:
  - The longest pendulum swings in the same length of time that a healthy adult takes to breathe in and out again.
  - A healthy baby breathes in and out in the same time that the one-meter pendulum takes to swing.
  - A baby who breathes at the same rate as the very short pendulum is breathing very fast. He or she may have pneumonia and needs to see a health worker right away.
12. Ask the children what they learned from using the pendulum and if they could use it to teach others about rapid breathing. Get them to practice the word pneumonia (or local word for pneumonia).
13. At the very end of the activity, the teacher demonstrates the three types of breathing with the whole group. The teacher then repeats the breathing activity again and asks the children to shout 'Danger!' when the string swings at 50 times per minute. Explain again that if a 2 to 11 month old baby breathes at this rate for one minute, it is a dangerous situation and the child should be taken to a health worker quickly.

#### 5. Alternate activity two:

In communities where children have access to watches with a second hand or stopwatches, teachers may choose to do this lesson instead of, or in addition to, the activity above. Each pair of children will need a watch with a second hand or a stopwatch.

1. Ask the children to choose a partner.
2. In each pair, one child lies on the ground, and the other holds the timekeeping device.
3. Ask the timekeeper to observe his or her partner's breaths. He or she should see the chest and stomach rise and fall with each breath.



4. Once the timekeeper has found the breath, ask the child to count his or her partner's breaths for one minute while the partner breaths normally.
5. Ask the children to change positions and repeat the exercise.
6. After each child has had a turn, ask the children how many breaths they counted. The children should have counted between 12 and 20 breaths per minute.
7. Explain to the children that they can help their family by counting breaths when their siblings are sick. If breaths per minute go over 50 then the sick child should see a health worker.

#### 6. Activity three (15 minutes):

1. Ask the children to draw a table such as the one below. In pairs or small groups, have the children draw in the six boxes (they can use single words too). The idea is to collect all of the ideas the children have learned from the lesson and the ideas they have heard at home.

	Signs of a cough and/or cold	The causes of coughs and colds	Treating coughs and colds
Ideas from the lesson			
Ideas from home			

2. Ask two groups to work together to identify where there are differences between ideas in the lesson and ideas from home (for example, treating a cold with medicine).
3. In the whole group, ask each group to say what the differences were and what the correct ideas are.
4. Ask the children how they (alone or as a group) can convey the correct messages to others at home.

#### 7. Concluding activity (5 minutes)

Conduct the quiz again and record the responses.

#### Homework activity

Invite the children to talk about their lesson on coughs, colds and pneumonia at home. The children can demonstrate the pendulum and ask family members about any their ideas on how to treat coughs, colds and pneumonia.

### Optional extra activity (10 minutes):

#### Ideas to develop the lesson on coughs, colds and pneumonia

Ask a health worker to come and talk to the children about pneumonia. Prepare the children for the health worker's visit by discussing some questions such as the ones below with the children:

- How can we tell the difference between a bad cold and pneumonia?
- What are the signs and symptoms of pneumonia?
- Do we know anyone who has had pneumonia? For how long? What time of the year was it? Did it start on its own, or follow from a cold, measles, or whooping cough? Did it get better? What helped? Was any medicine made at home or did it come from the doctor or health worker?

Help children pronounce difficult words and read through the questions. Ask children to talk about the questions in pairs – do they know the answers?

The health worker talks to the children about pneumonia. From this talk, children should learn that:

- All children (and also adults) can get pneumonia, but babies less than one year old are more likely to get it than older children.
- Babies are less likely to get pneumonia if they are breastfed, well nourished, protected by adequate vitamin A, and immunized against measles and whooping cough.
- Pneumonia can start on its own or follow from a cold, measles, or whooping cough.
- The clearest and surest sign of pneumonia is rapid breathing.

Coughs, colds, and pneumonia as a topic in other subjects	
Language	Children make up a puppet show to tell the story of someone who had pneumonia. The puppet show should ask the following questions: <i>What started it? Cough? Cold? No immunization? Measles? What were the signs? What did the patient feel? How was the pneumonia cured? How could it have been prevented?</i>
Music	Make up a song with the chorus: <i>Do not worry, do not fret This is not pneumonia yet</i> The final chorus might be <i>Pneumonia is setting in Ask the doctor for a check-up</i>
Mathematics	Repeat Alternate Activity 2. This time, instead of counting breaths for one minute, ask the children to count breaths for 30 seconds. Ask the children to multiple the breaths by 2 to get the breaths per minute. Repeat the activity again counting breaths for 15 seconds, and have the children multiply by 4.

## Lesson 8: Malaria

### Background information

Malaria is a disease caused by parasites, called Plasmodium, that live and multiply in red blood cells. Malaria causes high fever, headaches, muscle and tummy aches, pain, weakness, and chills. Without timely treatment it can lead to death. There are different types of malaria parasites. Some are serious, especially for children and pregnant women. Malaria is a serious health problem worldwide. Approximately 247 million people get the disease each year. In 2010, it is estimated that that 1.24 million people died from malaria. Most of these deaths were in Africa and many were young children.

Although we see more severe cases of malaria in children under five years of age, school-age children actually have the highest rates of malaria parasites.

The malaria parasite is usually transmitted by the bite of a type of infected female mosquito (Anopheles). These mosquitos are infected through a previous blood meal taken from an infected person. When a mosquito bites an infected person, a small amount of blood is taken in which contains microscopic malaria parasites. About 1 week later, when the mosquito takes its next blood meal, these parasites mix with the mosquito's saliva and are injected into the next person being bitten. The mosquito bites between sunset and sunrise.

Malaria can also be transmitted through blood transfusion, organ transplant, or the shared use of needles or syringes contaminated with blood. Malaria may also be transmitted from a mother to her unborn infant before or during delivery (congenital malaria).

A person with malaria parasites can begin to feel unwell 7-14 days after the bite, but it may be much longer. In malaria areas over time, most people get some types of malaria parasites in their blood. A person's body learns how to cope with the parasite. This "coping mechanism" gives people some protection from or minimizes the effects of malaria. These people are less likely to die compared with children under five years of age. However, even if a person does not feel ill, the malaria parasite damages red blood cells and causes another problem, called anemia. Anemia causes chronic fatigue, poor concentration, and prevents adults from working and children from learning. In many countries where malaria is endemic, most school children will have malaria parasites in their blood. For example in Mali, 80% of school-aged children had parasites. Anemia is a widespread problem for these children.

### Preventing malaria

One of the best ways to prevent malaria is to **sit and sleep under mosquito nets treated with long-lasting insecticide**. The insecticide on the net kills mosquitoes when they land on it and it prevents mosquitoes from entering the net to bite. Long-lasting insecticide-treated nets (LLITNs) will last for three years, but they must be monitored for holes and tears. In some areas, government teams use sprays. For example, they may spray the inside of houses. The insecticide sits on the wall and kills mosquitoes when they land on it. Other types of spraying include 'space spraying' into the air during times of epidemics and spraying areas where mosquitos breed.

Other methods of prevention include **chemoprevention**, which means taking antimalarial pills daily, weekly, or periodically (e.g. once a term), depending on the drug. Personal action to stop mosquitos biting include: **wearing long trousers and long-sleeved shirts** to prevent the biting after dark, and sleeping under the net, **using repellents, and screening doors and windows**.

If a person starts to get the symptoms of malaria they need to be checked and treated at the health clinic. Early treatment helps prevent malaria from becoming serious. Pills are given to treat malaria, and it is very important to take the pills exactly as instructed and to complete the treatment even if the symptoms have gone. People with malaria need to be kept cool and given lots of rehydrating fluids that include some salt and sugar. People recovering from malaria need extra rest and food. School children ill with malaria can miss 10 days of lessons, causing them to fall behind.

Teachers and children are important activists in the fight against malaria. They can spread health messages, ensure that children are sleeping under insecticide-treated nets, and that those nets are being used correctly. Children can help support family members and take chemoprotection or medicine to treat malaria correctly. They can make and give rehydrating drinks and nutritious soups during the fever. Children can help friends to catch up with school work after they have had malaria.

## Malaria Lesson Plan

### Lesson aim

Children will know why and how to minimize mosquito bites and how to ensure that they are protected by the correct use of bed nets where relevant.

### Lesson objectives

By the end of the lesson, children must:

- Know what malaria is, what its symptoms are, and how it is spread,
- Know how to prevent mosquitoes from biting them at night,
- Know how to help people with malaria,
- Know that they must use LLITNs, and
- Be able to use and maintain the LLITNs in the correct way.

### Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of how common and how serious the problem of malaria is in the community. In addition, the teacher must gain an understanding of the programs for preventing and treating malaria in the community. In particular, the availability and use of LLITNs and the use of chemoprevention (antimalarial pills) daily, weekly, or intermittently. With the help of the children, and if possible health workers, the teacher can collect information about the availability of LLITNs, how they are used and maintained at household level, and can identify any problems such as how to fix the net and mosquitoes biting children in the evenings before they are ready for sleep.

### Lesson materials

- A picture of a child under 5 and a school-age child. These can be from magazines, newspapers, or simple drawings.
- A long-lasting insecticide-treated net.
- Prepare locally relevant story scenarios for activity three.
- Write out the evaluation questions on pieces of paper or card so the class can see them when they are held up. (Optional activity).

## How to conduct a 60-minute lesson on Malaria for 8-10 year olds

- 1. Question box:** Remind the children that they can put any questions they like about malaria into the Question Box. Questions can be answered during a future health lesson.
- 2. Quiz:** Conduct this 10-question quiz on malaria before and after the lesson. Read out each question. Ask for a show of hands and note down the numbers who raise their hands. It is supposed to be very quick. Do not give the answers.

Malaria Quiz (hands up if 'yes' to the answer)	
1. Who knows what malaria is?	6. Can children help to prevent mosquitoes from biting? (YES)
2. Who thinks they have had malaria?	7. Do you have a mosquito net in your house?
3. Who thinks malaria is caused by drinking dirty water?	8. Do children in your house always sleep under the net?
4. Who thinks malaria is caused by the bite of a mosquito?	9. Do you know how to help look after someone with malaria?
5. Can people prevent mosquitoes from biting them? (YES)	10. Do you know someone who has had malaria?

- 3. Activity One (10 minutes):** Ask the children basic questions and then give them the answer.
  - Question: What causes malaria? Answer: Malaria is caused by a mosquito that injects you with a parasite when it bites.
  - Question: What are the symptoms of malaria? Answer: Malaria causes high fever, chills, tummy aches, and weakness.
  - Question: Is malaria dangerous? Answer: Malaria is dangerous, especially for young children. Without treatment, people can die.
  - Question: What is anemia and how is it linked to malaria? Answer: Anemia is caused by damaged red blood cells. The malaria parasite kills red blood cells. Anemia makes people tired and weak.
  - Question: How can malaria be prevented? Prevent malaria by stopping mosquitos from biting by using long-lasting insecticide-treated bed nets, properly covering the skin between dusk and bedtime, using repellents, and spraying.
  - Question: How is malaria treated? Answer: Malaria is treated with medicine after testing at a health clinic. Anti-malaria pills can be given to prevent malaria.

### 4. Activity Two: Story telling with the class. (15 minutes)

Show the class the picture of the young child. Say to the class: *Let's call this three-year-old child (invite suggestions for a name) Maria. It's bedtime and Maria is going to sleep. Where does she sleep (children give suggestions)? Does Maria sleep under a net (yes/no)? There are mosquitoes buzzing. Does Maria get bitten? (yes/no). If she doesn't, ask why? If she does then develop the story further... Two weeks later we notice that Maria is feeling ill – she is crying a lot. We take her to the clinic*

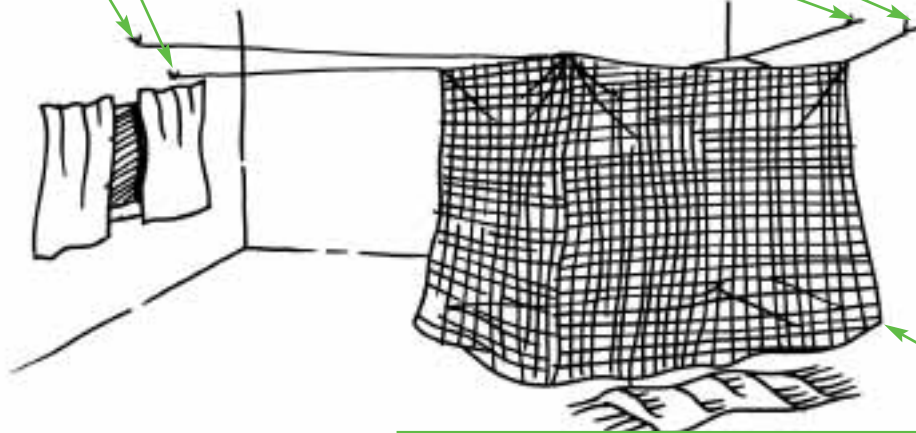
clinic and she tests positive for malaria. The health worker gives us some medicine and she tells us how to look after her at home. Do you know how we must look after Maria?

Repeat the exercise and this time starting by showing the picture of the older child. Ensure that you add the point at the end about children helping other children catch up with schoolwork.

Ask the children to work in twos or threes to develop different stories and retell them to the class or in a school assembly.

- 4. Activity Three: Using LLITN's (15 minutes)** Ask the class, "Who has an LLITN?" Select one of the children who does to tell the others how it works and when they use it. Use the background information to supplement or correct what the child says. Draw a picture of the correct way to hang the net inside and, if necessary, outside. Here is a picture of a square net.

Find three or four points in the room to hang the net.  
This depends on whether the net is a square or triangle shape.



Before going under the net, ensure the four corners are tucked in to prevent insects getting in.

LLITN's come in circles too, which can be hung from one strong point in the ceiling.

- 5. Concluding activity (15 minutes)** Conduct the quiz again, recording the numbers. Using a rapid-fire technique, have children work in groups and prepare answers to one of several questions on malaria. Here are some examples: *What causes malaria? What does a person with malaria feel? How can malaria be prevented? How is malaria treated? How can children help to prevent malaria? How can children help people who have malaria?*

Invite children to talk about their lesson at home and bring any questions from their families to class.

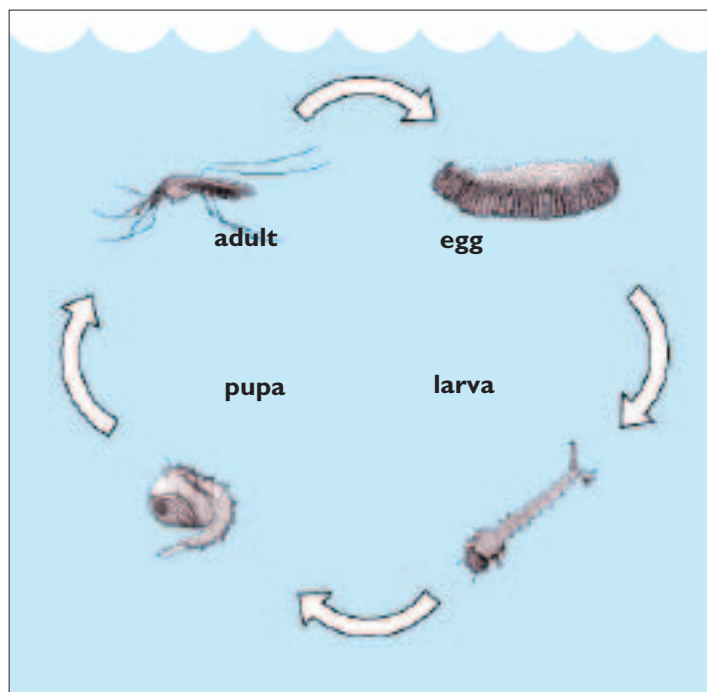
### Homework activity

Ask the children to find out the answers to the following questions

1. If you have an LLITN, check how old it is, how many times it has been washed, if it has any holes, and if there are any problems with its use.
2. What are you and your family members doing at dusk, before sleeping, and when mosquitoes start to bite? How do you avoid getting bitten at that time?
3. Collect one or two stories from other children who have had malaria. What did they feel? What and who helped them the most? How did they feel afterwards? Were they able to catch up on their schoolwork easily?



**Malaria Optional Extra Activity (10 minutes):** Draw and describe the 4-stage lifecycle of the mosquito using this picture as a guide.



#### Ideas to develop the lesson on malaria

- Answer the children questions about malaria from their homework.
- Make a chart to display the results of finding from the homework. Set up and run a monitoring system to ensure all children use LLITN's.

Child's name	Does the child's family have an LLITN?	Did the child sleep under the net last night?

- Children participate in a community-based campaign to prevent mosquitoes breeding, for example, by getting rid of sources of stagnant water. This could be done during a LLITN distribution event.
- If malaria is a serious issue, plan a health campaign.

Malaria as a topic in other subjects	
<b>Mathematics</b>	Children make graphs of the increase and decrease of malaria in different seasons of a year, either in one school or based on records from the health center.
<b>Social Studies</b>	<p>Children conduct surveys and make maps.</p> <ul style="list-style-type: none"> <li>• How many people in your family (and in the family of a neighbor) sleep under a net at night?</li> <li>• How many nets does your family have? How many are being used to sleep under?</li> <li>• Do people know that malaria is spread by mosquitos?</li> </ul>
<b>Science</b>	Children learn about the life cycle of the mosquito.
<b>Language</b>	<p>Children write stories and plays about malaria and share them with others. Some titles might be:</p> <ul style="list-style-type: none"> <li>• Mrs. Mosquito and Her Friends.</li> <li>• Careless Moses (who did not take the full course of medicine).</li> </ul>
<b>Music</b>	<p>Children make up songs and dances and perform them to the rest of the class:</p> <ul style="list-style-type: none"> <li>• There's a Hole in the Net Where Mosquitoes Get In</li> <li>• Down with Fever!</li> </ul>
<b>Art</b>	Children draw pictures and make posters.

## Example malaria health campaign

### 1. Understand the topic

#### Question and answer activity

- How do we get malaria? Malaria is spread by mosquitoes that breed in stagnant water and bite after dark
- Is Malaria very serious for some groups? Young children. Babies, pregnant women and old people
- How we can prevent malaria? Insecticide-treated bed nets and other measures to prevent biting after dark, plus getting rid of areas where mosquitoes like to breed.

#### Reflection activity

Ask children to think about the strengths of their friends and their families that will help them learn and take action on malaria (some general work on strengths may be needed first to give the children the language to talk and reflect on this).

#### What do we have activity

With the children, create a list of all the people, places, events, and other resources in the community that can help fight malaria. For example: health workers, bed net distribution, spray programs, health clinics, parent power, etc.

### 2. Find out more

#### Reminder of strengths and resources and how to do a survey activity

Reminding the children of their strengths and the existing resources that will help them, the teacher gives children examples of survey questions they can ask and shows them how results can be collated and displayed. For example: tick charts and tally charts.

### **Conducting a survey**

Children conduct a survey at school, at home, or in the community and collect data and information. They can ask: *How many people in your family have suffered from malaria? What are ways your friends and family members use to prevent malaria?* Children can interview family members to find out who has suffered from malaria and the ways used to prevent malaria. The children report and display their survey results using charts and tally charts.

### **3. Plan action**

Children reflect: *What did we find out from the survey? How do these results help us plan action? Why is it important to take action? What health messages are important to spread? What action can be taken at HOME, SCHOOL or in your COMMUNITY?*

These questions help children plan action based on what they found out from the results of the survey. Examples include:

- Children spread messages about the importance of protecting family members from malaria by using nets at night and inform them of the symptoms of malaria.
- Children create a quiz on malaria for other children in the classes. After the quiz, children discuss accurate health messages.
- Children write or tell a story to share with others. For example, a story about family who did not repair a mosquito net and caught malaria.

### **4. Take action**

At home or at a school and/or community event, children perform their songs, stories, and display their posters to raise awareness of the problems caused by malaria that are faced by children and family members in the community.

### **5. Reflect on action**

Children reflect on the success and challenges of taking action

- Do we know that young children, old people, and pregnant women are particularly vulnerable if infected by malaria?
- Have we taken any action to stop mosquitoes from breeding and biting?
- Do we as children feel a shared responsibility, along with the rest of the community, for stopping mosquitoes breeding and biting?

### **6. Act Again**

Most health issues need sustained action. Children reflect again on what they achieved. They prepare a poem, a story, or a symbol about the most powerful experience they had during the project. They perform to others (children, parents, and community members). Together they discuss any mistakes that need correcting and how the community will unite to continue its fight against malaria.



## Lesson 9: Trachoma

This section is on trachoma, which is disease specific to some parts of the world but not others. If trachoma is not a problem where you are, substitute this lesson with lesson 10, create a lesson that addresses an eye disease that is prevalent, or skip this lesson.

Children with trachoma may complain of sore or dry eyes. They may feel like there is sand in their eye or experience some white or watery discharge. These symptoms can be caused by trachoma infection. Someone with trachoma may also find it uncomfortable to be in bright sunlight. The eyes are damaged each time someone has a trachoma infection. The infection causes scars to develop in the eye. Each trachoma infection leads to more scarring until the scars slowly develop into a network. The scars shorten the inner part of the eye and pull the eyelashes closer to the eye. This becomes more and more painful and itchy as the lashes are pulled round so they touch the eye. The combination of scratching and infection finally turns the eye a cloudy white and this is when the person loses their sight. Scarring is more common in adults but can be seen in older children in areas where there is trachoma. Trachoma is often ignored and goes untreated.

When a child's face is not washed regularly, the dirt attracts insects (like flies) that walk on the face and eyes. The insect may fly to another person. If one person is infected with trachoma, the fly may spread the disease from one person to another. Children also touch their eyes more often than adults. They rub them if they are painful or irritated by something like dust, sand, flies or wind. Children also rub their eyes when they are tired. It is important that children wash their hands frequently to avoid spreading trachoma. All over the world, people wipe their children's faces to remove mucus from the nose, food from the mouth, tears from the eyes, or dirt on the face. In most countries, they use part of their own clothes to do this. The germs causing trachoma are present in the liquid coming from the eyes and mucus from the nose. Therefore, the practice of wiping a child's face repeatedly with clothing or wiping multiple children's faces with the same cloth or clothing may spread trachoma.

Schools, teachers, and children can do a lot to look after eyes and prevent trachoma. Teachers can encourage students to tell them if they cannot see the board (or text in a book). Where possible, teachers can work with health services to identify sight problems. Teachers can work with older children to enable them to detect sight problems in younger children too.

The most important hygiene actions are to wash the face, keep it clean, and to wash hands before touching the eyes. Other actions include promoting a good diet that includes vitamin A and ensuring that children receive their measles vaccine. Where cloths are used for drying hands and faces, children can advocate for the use of individual cloths (with labels or tags) or learn to air dry their hands. Schools can run campaigns and promote vision checks in school. Teachers can be trained to detect the early signs and link with health clinics to ensure quick treatment with antibiotics when signs of eye infections in children are detected.

### Lesson Plan on Trachoma

#### Lesson aim

Children know why and how to look after their eyes. They are able to recognize trachoma, to advise that it is treated, and to use good personal hygiene to prevent contagion.

#### Lesson objectives

By the end of the lesson, children must:

- Know what trachoma is and that, if left untreated, it can lead to blindness,
- Know how trachoma develops and is spread,
- Know how to prevent trachoma,
- Understand that there is treatment for eye infections and eye diseases.

## Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of how common and how serious the problem of eye disease (and trachoma in particular) is in the school and community. In addition, the teacher must gain an understanding of the programs for preventing and treating trachoma and other eye problems in the community. For example, are children able to wash and dry their faces regularly? With help from the children, and if possible from health workers, the teacher can collect information about eye infections and trachoma in the community.

## Lesson materials

You will need hand-washing facilities (running water, soap, and clean cloths or paper towels for each child), clean cotton pieces, cups, warm water, and salt. You will also need to draw these pictures or to make a large copy of it.





## How to conduct a 60-minute lesson on Trachoma for 8-10 year olds

### Introductory activity

The teacher asks the children if they can see the blackboard. Those that do not can be moved them to front of the classroom. If there are children with eye problems, where possible, the teacher can help to arrange for the child to be seen at a health clinic. This activity should be done very sensitively so children with sight problems do not feel ashamed.

**1. Question box:** Remind the children that they can put any questions they like trachoma into the Question Box.

**2. Quiz (5 minutes)** Conduct this 10-question quiz before and after the lesson. Read out each question. Ask for a show of hands and note down the numbers of hands shown. It is supposed to be very quick. Do not give the answers.

Looking after our eyes quiz (hands up if 'yes' to the answer)	
1. Do you wash your face regularly?	6. Can sight problems be caused by a poor diet? (YES)
2. When you wash your face do you wash your eyes?	7. Can flies spread eye disease? (YES)
3. Do you use a washcloth to wash your face?	8. Can sharing cloths to wipe the eyes spread eye disease? (YES)
4. Do you share a washcloth with other members of the family?	9. Can people who have an eye disease when they are children become blind when they are adults if the disease is not treated? (YES)
5. Have you heard of an eye disease called trachoma?	10. Can eye disease be easily treated? (yes especially when treated early)

### 3. Activity one: Are our eyes clean? (20 mins)

- Ask children to wash their hands carefully with soap. Ask them to wash their own eyes very gently using a mix of warm water and a small pinch of salt. Ask them to dry their eyes with a piece of clean cloth or tissue. Ask the children to wash their hands again with soap after they have finished washing their eyes.
- Ask them to work in pairs to inspect each other's eyes and think about these questions: *Did the eyes look shiny and clear? Were there any unusual spots or wrinkles on the eyes? If so, tell the teacher, something might be wrong. Were the eyes pink, red, or sore? Ask the partner if he or she can they see well at night?*
- After the children are finished examining each other's eyes, ask them to wash their hands with soap a third time.
- Discuss the questions with the whole group and them make a list of any children who may have eye problems for a checkup if appropriate health system exists in your community.
- Give children brief information about different eye diseases, e.g. that pink eye can spread from person to person easily, that stys – small painful lumps on the edge of the eyelid – are not dangerous but are painful. A clean cloth with warm water can be used as a compress to ease the pain of a sty. Trachoma is very serious and needs checking and treating by a health worker.
- Emphasize the importance of washing the face regularly to prevent eye problems.

#### 4. Activity two: How eye infections spread. (15 mins)

Using the picture:

- Show children the pictures.
- In small groups, or in the whole group, ask the children to discuss what the pictures tell us about how eye infections spread.

**Question and answer (10 minutes).** Using questions and answers, teach the children facts about looking after eyes.

- *Question: What is trachoma?* Answer: Trachoma is an infectious eye disease.
- *Question: What are the symptoms of trachoma?* Answer: Trachoma causes painful itching in the eye and a white watery-liquid can come from the eye.
- *Question: Is trachoma dangerous? Why?* Answer: Yes, trachoma is dangerous. It can lead to suffering and blindness if left untreated.
- *Question: How does a person catch trachoma?* Answer: Trachoma can be spread easily from person to person by flies, by wiping eyes with cloths, and by rubbing eyes and touching others.
- *Question: How can trachoma be prevented?* Answer: By using good hygiene, keeping faces clean, washing the face, getting rid of flies, each person using his or her own wash cloth, and treating infections quickly.

**5. Concluding activity (10 minutes)** Conduct the quiz again recording the numbers.

#### Homework activity

Invite children to talk about their lesson on trachoma at home and to put any questions they or their family have in the question box.

Ask the children to ask family members or neighbors about people they know who had an eye disease. Ask them what it was like, how it was treated, and what they advise others to do to prevent eye disease.

#### Ideas to develop the lesson on Trachoma

- It's important to remind children that many of the activities about good diet and personal hygiene are also linked to preventing eye disease. For example: making, using and maintaining tippy taps for hand and face washing, and promotion of soap to improve cleaning.
- Tree planting can reduce dust and improve the school environment.
- If schools use physical inspections or checks for cleanliness, looking at the eyes can be included in these checks.
- Children can design quizzes on trachoma that they can use to test each other and that can be used for interschool quizzes and trachoma competitions.
- Schools can be used to screen children for eye disease like trachoma and children can be organized to help and support the health staff, so that these activities are done in an educational way.

## Trachoma as a topic in other subjects

### Social Studies

People with sight problems can be asked to come to talk to the children about how they lost their sight. Children can learn that not all sight difficulties are the same. They can ask the people to tell them what children can do to improve the lives of adults and children with poor sight.

### Music

Children can compose songs and rhymes about keeping flies away from the eyes:  
*Brush the flies from baby's eyes*  
*Keep them away*  
*Don't let them stay*

### Art

Children can build on activity two (a picture observation) and make their own series of pictures or posters that highlight the most common ways in which eyes disease like trachoma are spread in the community.

Conduct a poster competition that conveys the message to wash the face to keep eyes clean and bright.



Children start the day with exercise at the early childhood development (ECD) center in Nimuwaboshi village in the far-western region of Nepal.

*Brent Stirton*

# Section 3:

## Taking Care of Our Bodies

### Lesson 10: About Our Eyes

Our eyes are a very important part of our bodies. Our eyes help us to see. Vision begins when an object reflects light rays. The light rays enter the eyes through the transparent outer covering of the eye, which is called the cornea. The cornea bends the light rays so that they pass through the pupil, the round hole that creates the black part of our eyes. The iris – the colored part of our eye – opens and closes to make the pupil bigger or smaller. Changing the size of the pupil controls how much light is passing through our eyes at a time. Our pupils are bigger when it is darker because our eyes need to let in more light in order to see. Our pupils are smaller when it is bright, because our eyes need to let in less light in order to see.

After the light rays enter the eye through the pupil, they pass through the lens, which focuses the light on the back of the eye, called the retina. The retina is a thin layer of tissue at the back of the eye that contains millions of tiny light-sensing nerve cells, called rods and cones. The rods and cones convert the light into electrical impulses, which are sent along the optic nerve to our brains. Our brains put the impulses together to form an image.<sup>1</sup>

Our bodies have built in ways to help us to protect our eyes. Eyelashes keep out dust, dirt, and flies. Eyelids protect the eyes by closing when we blink and during sleep. Blinking spreads tears over the surface of the eye to keep it clean.

Still, there are other ways that we can help our bodies to protect our eyes. Our eyes are very susceptible to disease – both diseases of the eyes themselves as well as other diseases that enter our bodies and make us sick. We should wash our hands frequently and avoid touching our eyes to reduce the spread of diseases like colds and flus, as well as eye disease like conjunctivitis (pink eye or red eye). We should also wash our faces frequently, including our eyes, so that flies are not tempted to land on our faces and spread germs.

Eye diseases such as river blindness (caused by the bite of an insect) and trachoma develop slowly and may not be noticed in the early stages. Trachoma is an eye disease that is the main cause of preventable blindness worldwide (Lesson 9). Measles is a disease that can cause blindness and can be prevented by immunization.

There are important eye-health vitamins found in green leafy vegetables and eggs, which help to fight chronic eye disease. Vitamin C is found in fresh fruits and vegetables and can slow age-related vision loss. Vitamin E is found in nuts, fortified cereals, and sweet potatoes. It helps to keep the tissues in the eye healthy. Fats are a necessary part of the human diet. They help the nervous system, provide energy for cells, and boost the immune system. Some fats are especially important for vision development and helping the retina to function well. Vitamin A is a micronutrient that is needed for good vision. It prevents disease and keeps eyes healthy. It also protects against night blindness. Schools can play an important part in distributing Vitamin A capsules, which give a good dose of Vitamin A on a regular basis. Zinc plays an important role in bringing Vitamin A from the liver to the retina to the eye in order to protect it.

<sup>1</sup> American Optometric Association



## Lesson aim

Children understand that sight is one of their five senses. They understand the basics of how eyes help us see. They know basic ways of promoting good vision and preventing vision loss.

## Lesson objectives

By the end of the lesson, children must:

- Name the five senses,
- Identify parts of the eye,
- Know three ways to promote good vision,
- Know three ways to prevent vision loss.

## Lesson preparation

Before teaching this lesson, the teacher should understand how common near and far-sightedness is in the community. The teacher should also be familiar with what community programs may be available to help children with poor vision get treated with glasses.

## How to conduct a 60-minute lesson About Our Eyes for 8-10 year olds.

1. **Question box:** Remind the children that they can put any questions they like about our eyes into the Question Box. Questions can be answered during a future health lesson.
2. **Quiz (5 minutes)** Conduct this 10-question quiz before and after the lesson. Read out each question. Ask for a show of hands and note down the numbers of hands shown. It is supposed to be very quick. Do not give the answers.

Quiz on Looking after your Eyes ( <i>hands up if 'yes' to the answer</i> )	
1. Do our eyes have different parts with different jobs to help us see? (YES)	6. Do dark leafy green vegetables help our eyes? (YES)
2. Do we have three senses? (NO – we have five)	7. Can we protect our eyes to prevent damage? (YES)
3. Does what we eat affect our vision? (YES)	8. If someone wears glasses, is that person less smart than someone who doesn't? (NO)
4. If our eyes are damaged, can they be fixed easily? (NO, they might be able to be fixed by a specialist, but maybe not.	9. If someone wears glasses, is that person smarter than someone who doesn't? (NO)
5. Do sugary snacks help our eyes? (NO)	10. Can you name some parts of the eye?

### 3. Activity one: The five senses (10 minutes)

1. In the large group, ask students if they can name the five senses. Ask children to name one sense at a time, so that more children have a chance to answer the question. Write the five senses on the board (sight, hearing, touch, smell, and taste).
2. Ask the students to vote for which sense they believe is the most important sense and tally the votes on the board.
3. Ask the children why they believe the sense they voted for is the most important.
4. Teacher explains that all of our senses are important, but that in this lesson we'll explore the sense of sight and the parts of the eye.

### 4. Activity two: Exploring sight (15 minutes)

In this activity, we'll explore sight in two different ways.

1. Ask the children to choose a partner. Give each child a scarf or cloth for a blindfold. Ask one child in each pair to put on the blindfold. Ask the blindfolded child's partner to lead the child around the classroom (if appropriate, the children can be led outside of the classroom) using only his or her voice. Tell the children to take care of their partners and to keep them safe by going slow.

After a few minutes, have the children come back together and ask the blindfolded children about their experience. *What did you feel? What was hard? What did you like? What didn't you like? What was it like being the leader?*

Have the children switch roles. Blindfold the second child in each pair with the second blindfold. Repeat the exercise. Again, after a few minutes, bring the children back together and ask them about their experiences.

Ask the children which senses they used during this activity.

2. Choose two students. Blindfold each of the children. Present them with common objects (such as fruit, vegetables, toys, etc.). Ask the children to guess the objects by feeling them. The children can take turns feeling different objects. If time permits, choose additional children to guess the objects.

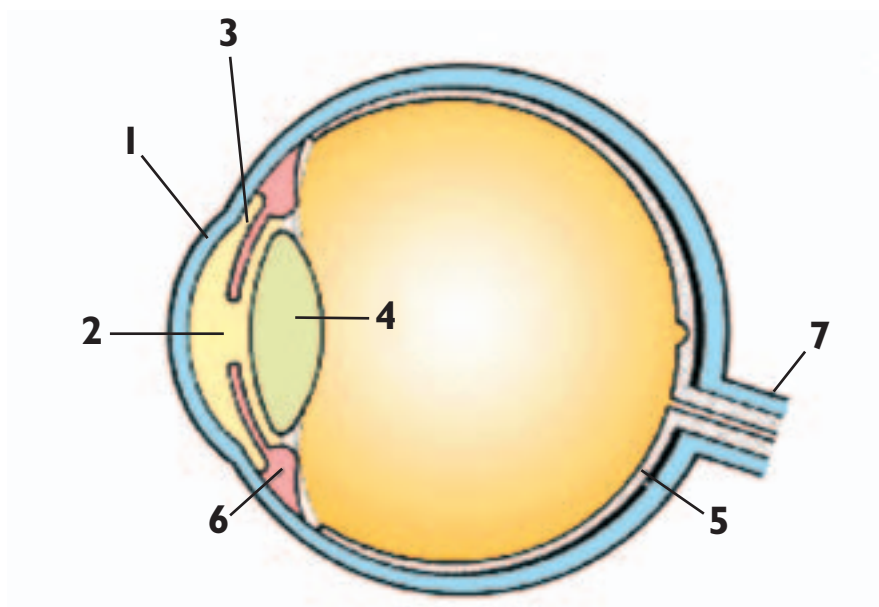
Ask the children which senses they used during this activity.

Wrap up activity two by again talking about each of the five senses. Say that when one sense is compromised, we use other senses to help us make our way. Tell them that we should do our best to keep all five of our senses in good working order.

### 5. Activity three: The parts of the eye (15 minutes)

1. Using the large drawing of the eye, label each part. Explain to the children what each part of the eye does.
2. If available, hand the worksheets to the children. Ask the children to color each part of the eye and to label it. If the worksheet is not available, have the children work in groups to draw the eye and label it.
3. In the table on the worksheet, have the children fill in the functions for each part of the eye.
4. In groups, have children talk about the parts of the eye and what they do so that they each become experts. After discussion, the teacher can ask members from each group to explain the different parts of the eye to the class.
5. Finally, review all parts of the eye with students again.





Number	Part Name	Function
1		
2		
3		
4		
5		
6		
7		

Answers are listed on Page 73.

Tell children that their eyes are special. If they're damaged, they won't grow back like hair or fingernails. An eye-specialist may be able to repair damage to your eye, but sometimes they can't. It is important that we take care to protect our eyes and to not put our eyes in danger. Never shoot elastic bands or throw sand at someone's face. It could damage his or her eyes permanently – forever!

You should always protect your eyes from dangers like the sun, dust, or objects that could fling through the air. Be careful when walking along roadways and when it's windy.

**6. Concluding activity (5 minutes)** Conduct the quiz again recording the numbers.

### Homework activity

Invite children to talk about their lesson on looking after the teeth at home and bring any questions that they or their families have to class.

Ask the children to ask family members or neighbors about people they know who had problems with their eyes. Discuss if they have glasses and how the glasses help them to see.

<sup>2</sup> American Optometric Association.

## Ideas to develop the lesson

### Matching game

Write each of the parts of the eye on a large strip of paper. Write each of the functions of the eye on a large strip of paper. Ask children to choose one part of the eye and then match it with the correct function. This matching can be made into a game with groups of children racing to match the parts of the eye with their functions, or it could be done as a relay race with two teams.

Part Names	Functions
<b>Lens</b>	Contains cells that detect light
<b>Retina</b>	Opening to the inner eye
<b>Ciliary Muscle</b>	Controls the size of the pupil
<b>Optic Nerve</b>	Focuses image of object
<b>Pupil</b>	Controls shape of lens
<b>Cornea</b>	Transmits information to brain
<b>Iris</b>	Outermost transparent layer of eye, begins focusing process
<b>Answers:</b>	
<ol style="list-style-type: none"> <li>1. <b>Cornea.</b> Outermost transparent layer of eye. Begins focusing process.</li> <li>2. <b>Pupil.</b> Opening to the inner eye.</li> <li>3. <b>Iris.</b> Controls size of pupil.</li> <li>4. <b>Lens.</b> Focuses image of object (on retina).</li> <li>5. <b>Retina.</b> Contains cells that detect light.</li> <li>6. <b>Ciliary muscle.</b> Controls shape of the eye.</li> <li>7. <b>Optic Nerve.</b> Transmits information to the brain.</li> </ol>	

About Our Eyes as a topic in other subjects	
<b>Art</b>	Ask each student to create a drawing of his or her own eyes. Number the drawings and display them on a classroom or hallway bulletin board. Encourage students to guess whom each pair of eyes belongs to and award a small prize to the student who correctly identifies the greatest number of eyes. <sup>3</sup>
<b>Writing</b>	Take a walk outside the classroom. Ask the children to play I Spy. To get the game going, the teacher can pick an object (a flower) and say, "I spy with my little eye, something that is small. I spy with my little eye, something that is pink." After each clue, the teacher can ask the students to guess the object. Continue giving clues until one of the children guesses the answer. That child then becomes the clue-giver. Play the game for a few rounds. After the game is finished, ask children to write a description of an object that they "spy" using adjectives (descriptive words). The children can then write a poem using the adjectives that they've listed.

<sup>3</sup> Education World



## Lesson 11: Looking After Our Teeth

Every person gets two sets of teeth. The first set – the primary teeth, baby teeth, or milk teeth – start to grow in when a baby is as young as three months old, but usually between six and 14 months. Children usually have their full set of primary teeth by the time they are three years old. When children are around six years old, the primary teeth begin to loosen and fall out in order to make room for permanent teeth. Children usually lose their final primary teeth, which are replaced by permanent teeth, by the time they're 12 or 13 years old. Permanent teeth must last the whole lifetime. Both sets need to be looked after carefully.

Clean strong teeth make you look good and help us speak. A person with good strong teeth looks healthy and happy. Having good, healthy teeth allows people to eat a variety of healthy food.

We can practice ways to keep our teeth and gums clean and healthy. We should remove the food pieces between our teeth and brush away the plaque between our teeth with a stick or with a small string (called floss). We can brush our teeth with a toothbrush or, if that's not available, a special twig. We brush our teeth twice a day for at least two minutes. We should floss our teeth at least once each day. Young children should be taught how to brush. As they get older, they need to be observed and then monitored from time to time. Brushing the teeth needs to be a daily hygiene habit like washing hands with soap.

A chemical called fluoride, commonly found in water, strengthens the surface of the teeth and helps to prevent them from rotting. In many areas there is plenty of fluoride already in the water, although the amount can vary according to the time of year. In other places there is not enough fluoride in the water, and in these places we need to use toothpaste with fluoride inside it.

Some children's teeth decay, and some of us have naturally stronger teeth than others. Decay means that teeth get brown and develop black holes that look ugly. These holes may be small at first, but they are painful and if the holes are not filled by a dental worker they will turn into big holes. Teeth become rotten when we do not clean our teeth well and when we eat too many sugary sweets, which speeds up the decay process. Children with rotten teeth can have bad breath and may have other problems in the mouth, like a boil or an abscess in the gums around the teeth. Later on, the tooth may become so rotten that it has to be taken out. When missing one or more teeth, it becomes more difficult to bite and chew food.

The gums cover the jaw around the teeth. When teeth and gums are not cleaned properly something called plaque forms around them and germs live in the plaque. Plaque is a sticky film of germs that cause disease. The plaque makes gums bleed, which can cause pain and contributes to weakening teeth. Unhealthy gums bleed when they are brushed. It is a sign that germs have already attacked and infected the gums. One should continue to brush regularly, in order to help make the gums healthier.

Teachers and children can become important advocates of how to look after teeth well. They can practice looking after their teeth and gums well at home and shows others how to do this. They can make up drama and songs to pass on the key messages about how to look after teeth and gums and why this is important.

### Lesson Plan on Looking After Our Teeth

#### Lesson aim

Children feel able and willing look after their teeth and gums correctly every day and to know what foods support healthy teeth.

#### Lesson objectives

By the end of the lesson, children must:

- Understand when we should brush our teeth
- Know three problems that can happen if we do not brush and our teeth

- Be able to describe at least four ways to keep teeth and gums clean and healthy
- Be able to demonstrate how to brush and floss the teeth.

## Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of dental health in the community and the services available to people. The situation will vary greatly according to country and community.

## How to conduct a 60-minute lesson on Looking After Our Teeth for 8-10 year olds

- 1. Question box:** Remind the children that they can put any questions they like about our teeth into the Question Box. Questions can be answered during a future health lesson.
- 2. Quiz (5 minutes)** Conduct this 10-question quiz before and after the lesson. Read out each question. Ask for a show of hands and note down the numbers of hands shown. It is supposed to be very quick. Do not give the answers.

Quiz on Looking After Our Teeth ( <i>hands up if 'yes' to the answer</i> )	
1. Do you brush your teeth every day?	6. Are sugary foods and drinks bad for the teeth? (YES)
2. Do you brush your teeth twice each day?	7. When a hole forms in the tooth is this painful? (YES)
3. Can germs gather on your teeth and gums? (YES)	8. If one of your second teeth falls out will another one grow? (NO)
4. Do you know why gums bleed?	9. Are very sweet fruits harmful for teeth? (NO)
5. Do you have one set of teeth? (NO)	10. When teeth fall out, does this look nice? (NO)

- 3. Activity one: Question and answer (20 minutes)<sup>1</sup>** : Using question and answer, teach the children facts about looking after our teeth.
  - **Question:** *Why do we get toothaches?* **Answer:** The teeth are a very sensitive part of the body with lots of nerves. When something is wrong with the teeth we feel it. We get toothaches when damage in teeth is significant enough to affect the nerves in the teeth.
  - **Question:** *Why is it important to take care of our teeth? Why is it important to brush teeth and gums correctly?* **Answer:** Strong teeth and gum are necessary for eating (biting and chewing) and speaking properly. Food particles can stick to the teeth if they're not cleaned properly, resulting in carriage (cavities) and may cause gum disease.
  - **Question:** *What is tooth decay?* **Answer:** If teeth are not brushed after every meal, then food particles get stuck. These food particles give out a kind of acid that wears out the enamel coating and creates decay and even holes inside the tooth that grow, affect the nerves and cause pain.

<sup>1</sup> These Q&A's are adapted from the Nepal curriculum.

- *Question: How do we know something is wrong with our teeth?* Answer: Often we cannot see the problems, but we can feel pain when eating cold, warm, and sweet things. Gradually this pain increases and becomes constant until the tooth is fixed.
- *Question: What is gum infection?* Answer: Gum infection is caused by the buildup of plaque, which causes gums to become irritated. First the gums start bleeding, and then the infection starts.
- *Question: How can toothache and gum problems be avoided?* Answer: Teeth should be brushed at least twice every day after breakfast and before going to bed. In addition to that, they should be rinsed with water thoroughly every time after all other meals so that food is not stuck between teeth and gums.
- *Question: What should be used to look after the teeth and the gums?* Answer: A toothbrush (or brush stick), toothpaste (containing fluoride), and dental floss (string to pull to and fro between each tooth to remove plaque and food particles between the teeth).
- *Question: Are there any food that are bad for teeth?* Answer: Yes, sugary foods and drinks are bad for the teeth. Sugar from fruits is fine.

#### 4. Activity two: Making up and illustrating stories (30 minutes):

- Read out these three story starters and ask the children to make up the rest of the story. This activity can be done in pairs or small groups. Ask them to include some of the things they have learned into their stories. Children can write or tell or act the stories they make up.

***I Don't Care!*** This is a story starter about a child who thought that caring for teeth was a waste of time. The story starts with a dialogue.

*"Your teeth look dirty."*

*"I don't care."*

*"Your gums are bleeding."*

*"I don't care."*

***The Hare's Revenge.*** This is a story starter about a hare who makes a good living caring for animals' teeth. He eats healthfully, and he doesn't like sweet things. But the hyena is out to catch him. The hyena disguises himself and pretends to have a very bad tooth. The hare is just about to look into the hyena's mouth when he realizes he is in danger and snatches his hand away just before the hyena closes his mouth onto the hare's paw. The hare decides to take his revenge. He knows that the hyena family is all very fond of sweets.

***A Tooth in Trouble.*** The story of a strong and hard-working tooth told by himself. "All was well until those sweet drinks came pouring in and started to rot me away. There was a large army of germs that starting to camp on me..."

- Select one or two children to read out, retell, or act out their stories or to give them all a turn if there is time, get the children to meet with another pair or group to share the stories, then select one or two to demonstrate. The stories can be written up and displayed and then can be told to younger children in the school.

#### 5. Concluding activity (5 minutes): Conduct the quiz again, recording the numbers.

## Homework activity

Invite children to talk about their lesson on looking after the teeth at home and bring any questions that they or their families have to class.

Ask the children to ask family members or neighbors about people they know who had problems with their teeth and why they think that this happened. Ask them what it was like, how it was treated and what they advise others to do to prevent problems with the teeth.

## Ideas to develop the lesson

- Invite a dentist to come to the school to show the children exactly how they should be brushing their gums and their teeth. If a specialist is not available, teachers can demonstrate. Here are some guidelines:

How to look after gums and teeth	
Teeth	Gums
<ul style="list-style-type: none"><li>• Use a soft toothbrush if available; otherwise use a softened branch or leaves from a bush</li></ul>	<ul style="list-style-type: none"><li>• Use dental floss if available; otherwise use clean string or clean strong grasses</li></ul>
<ul style="list-style-type: none"><li>• Apply a small amount of toothpaste to brush, if available</li></ul>	<ul style="list-style-type: none"><li>• Move the floss or string between each space between teeth to remove the substance between the teeth</li></ul>
<ul style="list-style-type: none"><li>• Keep the brush inside the mouth, making sure it reaches both the teeth and gums on the inside and outside of teeth, in the front and back of the mouth</li></ul>	<ul style="list-style-type: none"><li>• Flossing teeth keeps gum and teeth healthy and becomes easier with time</li></ul>
<ul style="list-style-type: none"><li>• Gently press brush and move in small circles for 2 minutes</li></ul>	<ul style="list-style-type: none"><li>• It is best to floss first and brush second</li></ul>

Looking after the teeth as a topic in other subjects	
<b>Mathematics</b>	Children in a class can make surveys and keep records: <i>How often do we brush our teeth? How often do we eat sugary things between meals? Who has lost one of their second sets of teeth? Who has been to a dentist for treatment of tooth decay?</i>
<b>Science</b>	Teach the children the names of the different teeth and have them locate the teeth on a model or diagram and in their own mouths.
<b>Music</b>	Children can make up songs that last 2 minutes to sing to younger children while they brush their teeth.



## Lesson 12: Mental and Emotional Health

### Background<sup>1</sup>

Health is not just about our bodies. Health is also about having good relationships with those closest to us and with others in our community. It is these close relationships that help to make us feel safe and happy. When relationships break down with parents or friends this can make us sad and affect our mental health. If you're in good mental health, you can: make the most of your potential; cope with life; play a full part in your family, workplace, community, and with friends. Some people call mental health “emotional health” or “well-being” and it is just as important as good physical health.

Children who are thought of as being “slow”, “sleepy”, “lazy”, “unfriendly”, “unhelpful”, “rude”, or “naughty” may be suffering from mental and emotional problems or learning difficulties. All too often these children are neglected or punished at home and in school instead of being helped by being given attention, understanding, listening, kindness, and love.

Here are some signs you should look out for which may indicate that a child is suffering from poor mental or emotional health:

- Suddenly losing interest in schoolwork and not doing homework, or doing it very poorly.
- Not playing with friends. Sitting alone and perhaps becoming unhelpful in class.
- Looking unhappy and crying when you criticize his or her work or classroom behavior.
- Getting angry and violent with other children much more often than usual.
- Not taking any interest in looking neat and clean.
- Regularly forgetting to do what he or she has been asked to do.
- Acting in other ways that are out of character for that child.

Mental or emotional health problems are often caused by family problems at home, by children being beaten by teachers, or bullied by other children. Children who are bullied can be very badly affected. Their lives are made unhappy and their schoolwork suffers. Some children who have been bullied have even try to kill themselves. Bullying is often the sign of serious problems within a school community, and often within the families of children who practice it.

Most people, including children, have times when we feel down or stressed or frightened. Most of the time those feelings pass. But sometimes, they develop into more serious problems. These problems can happen to any one of us.

There are people with mental health problems everywhere. A person's mental health doesn't always stay the same. It can change as circumstances change and as they grow older and go through different stages of their lives. People can feel uncomfortable about have a mental health problem and may not talk about it. Not talking about a mental health problem can lead to isolation, which may cause the problem to become worse. A family that includes someone with mental health problems may feel ashamed and try to hide this person. This may affect the lives of others in the family.

Sometimes mental health problems and learning difficulties are there from the start of a person's development. Sometimes they develop for reasons that can be prevented before or at birth, for example by maintaining a nutritious diet during pregnancy and ensuring the proper vitamins that help a baby grow well inside the mother. Having a baby too young can lead to babies that develop mental health problems, too. Some illnesses can prevent young children from growing and developing well like measles and these can be prevented by immunization.

Teachers and children can help children with mental health problems, with learning difficulties and they can help to support their families. Children can help to identify children in the community who may be hidden and help them take part in activities with other children. Children can become involved in promoting good diets and immunisation to prevent babies and others being affected by mental and emotional health problems that have a root cause in physical ill health.

<sup>1</sup> Adapted from Health Promotion in Our Schools and Small is Healthy AKU IED and Child-to-Child Trust (2006)

## Source materials

- Eenet <http://www.eenet.org.uk/>
- [http://www.who.int/topics/mental\\_health/en/](http://www.who.int/topics/mental_health/en/)

## Lesson Plan for Mental and Emotional Health

### Lesson aim

Children understand what mental and emotional health problems are and that people with mental or emotional health problems can be helped. Children will also understand how to support other children who may have mental and emotional health problems.

### Lesson objectives

By the end of the lesson, children must be able to:

- Know what mental and emotional health is and that that learning difficulties are part of mental and emotional health problems
- Know that people with mental and emotional health problems can live happy and fulfilling lives
- Identify children who may be neglected in their community because of mental and emotional health problems
- Know how to support children with mental and emotional health problems

### Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of how common and how serious the problem of mental and emotional health problems are among the children they are working with and in their families (this may be confidential). If there is a special teacher assigned to support children with these types of problems it would be useful to consult with this person and ask for support and guidance to teach this lesson.

This lesson is suited to the upper part of this age band older i.e. the 10 year olds rather than the 8 year olds.

### Lesson materials

You may want to use or create another story to use in Activity 2 that is more relevant to the lives of the children. This story is about helping children with mental and emotional health problems. The story can be used in many ways. For example: Children can read it, discuss it, act it out in four parts (situation, diagnosis, older sibling helping, outcomes).

Bring a big basket to conduct the final activity.

## How to conduct a 60-minute lesson on Mental Health for 8-10 year olds

**1. Question box:** Remind the children that they can put any questions they like about mental and emotional health into the Question Box. Questions can be answered during a future health lesson.

### 2. Activity one: What is health (30 mins)

1. Draw a big circle on the blackboard with the question: *What do we need to be healthy?*
2. Ask the children to copy the circle and then draw answers on this around the circle. They can do this in small groups, in pairs, or individually. You can also ask them to start the activity individually then share the ideas with a partner or in a small group where they can draw another version combining the ideas.

3. While they are drawing and depending on whether they need additional input, ask the group questions (vs. giving them ideas) such as:
  - Is health only about not having diseases?
  - What makes us feel good?
  - What makes a family a happy one?
4. In the whole group, ask each pair or group to share one of their ideas and write the ideas onto the board until, as a whole group, you have built up a diagram. Ensure the ideas include “a healthy mind” or “a happy mind”
5. Ask the children to copy the diagram into their notebooks.
6. Ask the children to:
  - Put their hands up if sometimes they feel they have not had a happy or healthy mind.
  - Put their hands up if they know someone in their family or community who does not seem to have a happy or healthy mind.
  - Put their hands up if they think children can help
7. Conclude the activity by asking children to give their ideas on what they can do to help others who are unhappy or who have learning difficulties.

### 3. Activity Two: Story of Zaki and Nassir<sup>2</sup> (30 mins)

#### 1. Read this story to the children

*Zaki and Nasir were brothers. Their father kept a shop. Zaki, who was 9, went to school. Nasir, who was 7, did not. There was something different about him. Nasir had learning difficulties. His brain did not work very well. He could only say a few words. He did not dress himself. At meal times he spilled his food on the floor. Sometimes he would get very angry and shout and throw things. Zaki helped Nasir and tried to play with him, but it wasn't easy. Children in the community would tease Nasir and push him about. Sometime Zaki felt ashamed having a brother like this. "It is unfair," he said to himself. "I always have to stay in the house and look after Nasir instead of going out to playing my friends."*

*One day, an important visitor came to their house. Dr. Daud was a cousin of Zaki's father. After he had talked to Zaki's parents, Dr. Daud said, "There is no medicine that can help your brother. Only you can help him." "Help him!" said Zaki. "He's stupid, he'll never learn anything. "He can learn," said Dr Daud, "but that depends on how clever YOU are. If you are clever enough, you can really help Nasir to change for the better. Then you will both be happier and you will get more time to go out and play. Let me tell you how."*

*Dr Daud talked to Zaki and to Zaki's parents and Zaki agreed (just for a month or two) to become Nasir's teacher and a special friend.*

*But Zaki also learned a lot of things himself; he started teaching Nasir to dress himself. Of course Zaki knew how to put on a T-shirt. You just pick it up and put it on! But he soon realized that there was more to it than that, when teaching Nasir.*

*First you had to find out which side was the back and which was the front of the t-shirt. Then you had to find the main hole and get the head through it. Then one arm went into the right sleeve. Then the other arm into the other sleeve. Then you had to pull the whole thing down over yourself.*

<sup>2</sup> Child-to-Child Trust

*Then there was teaching Nasir to feed himself. You would think how to eat was obvious! But Nasir had to find out step-by-step how to pick up a piece of bread, get some food on it., put it into his mouth and then remember to chew and swallow. It took dozens of repetitions and lots of encouragement and rewards before Nasir learned each step. Zaki began to see what Dr Daud meant. He needed to be clever enough to puzzle out how to teach Nasir. But when Nasir succeeded in learning some small steps, they were both so delighted it made all the effort worthwhile.*

*A few months later, Dr. Daud was passing Zaki's house. Zaki came running out. "Quick, Dr. Daud. You must come in!" Dr. Daud hurried in, thinking he would find someone at the point of death. But all he saw was Nasir grinning broadly in his chair. "What is it? What's the matter?" demanded the doctor. Zaki was so excited he could hardly speak. "He said a whole sentence, a whole sentence Nasir did! He's never said more than two words together before now. He just said, 'Zaki give sweets to Nasir.' I've been trying for months to get him talking. He did it! He did it! It's worth being a special friend!"*

*Dr. Daud smiled. "I think you like your brother better than you used to." he said. "Give him the sweets he's asking for."*

2. In small groups or pairs, ask the children to list the key messages from the story. The main message is that children can do a lot to help and support other children with mental health problems and it feels good to help others and make a difference in ways that are beneficial for them, too.

#### **4. Concluding activity: a basket of ideas (10 minutes)**

1. Ask the children to sit in a circle.
2. Place a basket in the middle of the circle
3. Ask the children to place an imaginary idea into the basket on how children can help to support people with mental and emotional problems and those that have learning difficulties.
4. One by one children come up to the basket, state their idea and with both hands act as if they are carefully putting in their idea. Make a note of the ideas that can be put up on a poster later. Here are some ideas:
  - *Adults and Children with mental and emotional learning difficulties need to lead as normal a life as possible.*
  - *We need to treat everyone with respect.*
  - *We should walk in the shoes of others and check if we would like those shoes and if not what we can do to change things for others.*
  - *They need to be included and listened to*
  - *They should get up in the morning and not be left in bed or alone*
  - *They can take part in all activities – play, school, work, sitting together and talking, festivals, meetings*
  - *They should play a full part in family life*
  - *They should be allowed to make choices about what they can eat, wear and do*
  - *They should not be given left over food, old clothes or nasty jobs*
  - *They may like a special toy or pet*
  - *They can be helped to understand what happens when things change for example if someone they love dies*

#### **Homework activity**

Ask the children to ask family members if there are any people they know in the family or community with mental or emotional health problems or learning difficulties and how this family copes with the problems.

Invite children to talk about their lesson at home and put any questions they or their family has about mental or emotional health into the question box.

Children can identify any children they know with mental or emotional health problems in the community.

## Lesson 13: Physical Activity

### Background information

**Physical activity is any body movement by the muscles that uses energy. Regular physical activity is done most days of the week.**

Physical activity levels can begin to go down as children approach their teenage years and may continue to decrease throughout adulthood. When children are young, they often run and play outside freely. However, as they get older, they have more responsibilities with their schoolwork and in their homes and so they don't run and play as much.

As countries develop, we see that populations often become less active. They walk less, they study and work more and they use vehicles rather than walking or riding bikes.

To maintain good health, it is important that everyone in a family maintains good levels of physical activity every day. Reduced physical activity can contribute to weight gain, which contributes to other health problems and eventually may lead to death.

Physical activity is especially important for children. It provides fundamental health benefits for the physical development of children and youth. These benefits include: healthy bones, muscles and joints; healthy heart and lungs; coordination and movement control; and healthy body weight. During physical activity, chemicals are released that create a feeling of well-being. Physical activity reduces anxiety and depression. It creates chances for self-expression and improves self-confidence, social interaction and integration.

Children and young people should have at least 60 minutes of moderate to vigorous physical activity daily. Some of the activity should last at least 10 to 15 minutes. Amounts of physical activity greater than 60 minutes provide additional health benefits. For children and young people, physical activity includes play, games, sports, transportation, chores, recreation, physical education, or planned exercise in the context of family, school and community activities.

Teachers and children can ensure a strong culture of physical activity exists in their school and in the community. They can promote increased physical activity in their families and communities.

### Lesson Plan on Physical Activity

#### Lesson aim

Children understand why physical activity is important, can assess their own levels of physical activity and know what levels of physical activity can contribute to good health.

#### Lesson objectives

By the end of the lesson, children must be able to:

- Know why physical activity is important,
- Assess their own levels of physical activity and those of family members,
- Assess the daily types and amounts of physical activity performed by children in the school

#### Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of the problems that are caused by the lack of physical activity for children in the class, school and for families in the community. There will be a wide variety from place to place. The teacher should also familiarize him or herself with what the options are for physical activity within the school and in the community, for example if the school offers dance groups or if football is played at recess.

The teacher may like to find an illustration or model showing the cross section of a body that shows bones, muscles and tendons.

The survey chart and the diary need to be copied onto a poster or the blackboard.

### Lesson materials

Large sheets of paper might be desired for making physical activity charts.

## How to conduct a 60-minute lesson on physical activity for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about physical activity into the question box.

### 2. Activity one (15 minutes)

Go through these questions with the children, giving them the answer.

- *Question: Why are we discussing physical activity?* Answer: Because physical activity is an important part of keeping us healthy.
- *Question: What parts of our body are helped by daily physical activity?* Answer: The heart, the blood going around the body, the lungs, muscles, tendons and bones. Physical activity can also help our minds by helping us think more clearly and sleep better at night. It can also help our mood.
- *Question: When people reduce their physical activity but do not reduce the amount they eat what happens?* Answer: People may gain weight and may be at risk of becoming overweight.
- *Question: Is it dangerous to be overweight?* Answer: Yes, people who are overweight may have a lot of health problems (like people who are underweight).
- *Question: Physical activity can be very enjoyable can you give examples?* Answer: (this will come from the children).
- *Question: Physical activity can be organized or just part of daily life. What activities do you do that are organized? What activities do you do that are part of daily life?* Answer: (this will come from the children).

### 3. Activity two: A tool for evaluating physical activity (20 minutes)

1. Explain the following points to the children:

- The best way to be is FIT,
- A tool to remember the important parts of physical activity is the word FIT!

2. Write the first block of words on the board, that is:

**F** for **Frequency**<sup>1</sup> that's how **often** we do physical activity.

**I** for **Intensity** that's how **hard** we do physical activity (does it make you out of breath).

**T** for **Time** that's how **long** we do physical activity.

You can use some simple ways to judge the intensity of your physical activity:

- a. **Low:** You can talk or sing; your breathing is regular and you are not sweating.
  - b. **Moderate:** You can talk, but you can't sing. You breathe often and deeply and begin sweating after 10 minutes.
  - c. **High:** You can talk briefly, but you can't sing. You breathe rapidly and deeply and begin sweating after 3 - 5 minutes.
3. In pairs, ask the children to learn these three words and how they are spelled.
  4. In pairs, ask the children to think about one type of the physical activity they do and think about how FIT it is (frequency, intensity and time).

<sup>1</sup> Note: This acronym will only work for classes taught in English. If classes are not taught in English, consider another word or phrase that includes the concepts of frequency, intensity and time.

5. Select some of the pairs of children to describe how FIT their chosen activity is (children of this age may need support to understand the time/duration of the activity).
6. Tell the children that everyone should be doing about 60 minutes of physical activity every day and that it is good if sometimes this activity makes you out of breath.

**4. Activity three: Survey on types and amounts of physical (20 minutes on day one and 10-20 minutes a week later)**

<b>Names:</b>	<b>Sam</b>	<b>Mary</b>	<b>Khalid</b>
<b>Before school</b>	Walk to school F: 5 days/week I: Low T: 20 minutes	Walk to school F: 5 days/week I: Low T: 45 minutes	Walk to school F: 5 days/week I: Low T: 10 minutes
<b>At school</b>	Football F: 3 days/week I: High T: 45 minutes	Games F: 2 days/week I: Medium T: 10 minutes	Football F: 3 days/week I: High T: 45 minutes
<b>After school</b>	Walk Home F: 5 days/week I: Low T: 20 minutes Football F: 3 days/week I: High T: 20 minutes	Walk Home F: 5 days/week I: Low T: 45 minutes	Walk Home F: 5 days/week I: Low T: 10 minutes

1. Ask the children to copy a blank version of the chart above in their notebooks.
2. Ask the children to divide into groups of four (it can be more or less but each child should have a column). Then have them discuss what physical activity they do in a week and fill in the blanks. Give one or two examples if needed.
3. Ask the children to make a physical activity diary that they will keep over seven days. It can look a bit like this (without the boxes filled in).



**Name: Samuel Obeng Age: 11**

	<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>	<b>Day 4</b>
<b>Before school</b>	<i>Walk to school</i> I: T	<i>Walk to school</i> I: T	<i>Walk to school</i> I: T	<i>Walk to school</i> I: T
<b>At school</b>	<i>Football</i> I: T	<i>Games</i> I: T	<i>Nothing</i> I: T	<i>Football</i> I: T
<b>After school</b>	<i>Walk Home</i> I: T <i>Football</i> I: T	<i>Walk Home</i> I: T	<i>Walk Home</i> I: T <i>Football</i> I: T	<i>Walk Home</i> I: T

- Tell the children that you would like them to fill in the physical activity diary over the next seven days. If children have access to timekeeping devices, ask them to record the length of time that they were active (Football: 30 minutes). Children can also record the level of intensity of their physical activity. You can remind them that frequency is how often the activity is done and so is not recorded in a diary. However, when all the days are added together you get the frequency.
- After seven days, have the children form groups again and combine their answers into a bar chart, based on type of activity.
- Ask the children if there are other ways that they could group information and what the differences are between the different ways to present the information. For example, if you tally the number of activity by day, it might show that children are more active on weekends than they are on school days. If children kept time, how many minutes of activity did each group do during the week?
- If short on time, the teacher can tally the information presented in the children's charts rather than having the children do it themselves.

### **Concluding activity (5 minutes)**

In the whole group ask the children what they have learn about physical activity from this lesson.

### **Homework activity**

- Ask children to write three messages they would like to spread on physical activities.
- Invite children to talk about their lesson at home and assess if the activity of the family members is FIT.
- They can put any questions that they or their family have about physical activity in the question box.
- Ask the children to ask family members or neighbors about people they know who are overweight and the health problems this leads to.

<b>Physical Activity as a topic in other subjects</b>	
<b>Social Studies</b>	Organize a track and field day. Children can organize a track and field day. It might be between classes, or the school could invite another school to participate. Children might also consider inviting parents to participate. Children can hold running races, tug o' war competitions, football matches and other competitions.
<b>Mathematics</b>	This lesson has a strong math component. To extend the math component, expand the diary exercise to make it a community survey. Children can look at the different type and amounts of physical activity different members of their family do and talk about the reasons why.
<b>Science</b>	Ask a health worker to come to class to talk about the body. Examine the muscles, tendons, bones and talk about how they work together to do different types of physical activity.
<b>Art</b>	Create a dance routine. Many cultures have traditional dances. Children can learn traditional dances or they might make up dances to popular songs and put on a recital for their parents and the community.



12 year-old Asmaa Ismail Ali and 13 year-old Mohamed Nasser Mohamed participate in an avian flu demonstration for a group of children in a School Health and Nutrition class in at the Mogama' Taha school, Egypt

Ahmed El-Nemr

# Section 4:

## Preventing Disease and Injuries

### Lesson 14: Immunization

Every year, millions of children die and millions more are disabled by diseases that can be prevented by immunization against the germs that cause them. Diseases, like measles and whooping cough (pertussis), kill babies and young children all the time. Injectable and oral vaccines can immunize children against these diseases. However, immunization only works if given before the disease strikes. The earlier immunizations are given the better.

Immunization works by building protection in the body against the germs that causes a disease. When we are ill with an infectious disease, it is because a tiny germ that can only be seen under a microscope has entered the body. The body defends itself using special soldier-like protectors called “antibodies.” Immunization is when an antigen, a substance that the body learns to recognize as the virus or bacteria which causes the disease, is put into the body to teach it to make antibodies. This prepares the body in case the disease enters again. It is a bit like training soldiers to defend the body effectively! Some immunizations have to be given more than once. This helps the body build up the right amount of antibodies to defend itself against that disease.

It is vital that infants are given the full course of immunizations, as advised by the health worker. If a child is feeling unwell on the day of the immunization, it is still safe to take them for immunization. If the child has not been fully immunized in the first year of life, it is vital to have the child immunized as soon as possible. If the times between the immunizations are longer than recommended, it is still important to take the child for immunization.

All children need to be protected by immunization against the six killer diseases (measles, tuberculosis, diphtheria, whooping cough, polio, and tetanus). In some countries, additional immunizations are available, against hepatitis B, *Hemophilus influenza* B (Hib) germ, pneumococcal pneumonia (PCV), and rotavirus diarrhea. The Hib germ can cause pneumonia and childhood meningitis. Both pneumonia and diarrhea are caused by many different germs. Thus, the Hib and PCV vaccines both protect against some kinds of pneumonia, but not all kinds of pneumonia. The rotavirus vaccine protects against one kind of diarrhea, but not all kinds of diarrhea. To protect the child, the first set of immunizations should be completed during the first year of his or her life. Vaccination schedules change with new and local knowledge. Know your country's national immunization schedule, and when and where immunization takes place locally. Here is an example of an immunization schedule.

## Immunization schedule for infants\*

BCG protects against tuberculosis.

DPT protects against diphtheria, pertussis (whooping cough) and tetanus.

Hib protects against childhood meningitis.

Age	Immunizations to be given
At birth	BCG**, polio and, in some countries, hepatitis B
6 weeks	DPT***, polio and, in some countries, hepatitis B, Hib, PCV, and/or Rotavirus
10 weeks	DPT, polio and, in some countries, hepatitis B, Hib, PCV, and/or Rotavirus
14 weeks	DPT, polio and, in some countries, hepatitis B, Hib, PCV, and/or Rotavirus
9 months	Measles (12-15 months in industrialized countries) and, in some countries, yellow fever, mumps and rubella

\* National immunization schedules may differ slightly from country to country.

\*\* BCG offers partial protection against some forms of tuberculosis and leprosy.

\*\*\* DPT protects against diphtheria, pertussis (whooping cough) and tetanus.

In many parts of the world tetanus is a major killer of newborn babies. If a mother is not immunized against tetanus, then her baby is in danger. Every woman of childbearing age should be fully immunized against tetanus.

Immunization campaigns help to save and protect millions of lives around the world. Children in many countries have played a part in these campaigns. More needs to be done to persuade all families to bring their young children to be immunized at the right time and to ensure children complete the full course of immunizations.

Teachers and school children are among the most powerful agents to communicate these messages and help their parents to make full use of immunization services. Children can understand which disease can be prevented by immunization, how immunization works and the correct immunization schedule for themselves and their families and younger siblings. With help from adults, children can make records concerning clinic opening times, dates for immunization, and do a survey of those children who have or have not been immunized. Children can help their families when they take children to the clinic.

## Lesson Plan on Immunization

### Lesson aim

Children understand what set of immunizations are needed in their country, when immunizations should be given, and how to help complete their own or another child's full course of immunizations.

### Lesson objectives

By the end of the lesson, children must be able to:

- Understand the relationship between diseases and immunizations,
- Know what immunizations are needed and the immunization schedule in their country,
- Tell their families and community members about the importance of completing the full set of immunizations.



## Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of the immunization schedule in the country and find out when immunizations are given to children in the local community. With the help of the children, the teacher can collect information about the problems that the health workers have when trying to reach all of the younger children in the community and ensure that the children receive the full course of immunizations.

The teacher should copy the stories for activity one onto the board or a piece of paper. Then, three children can each dictate one of the three stories to a third of the group. In this way, the children can discuss all three stories. In a later language or writing lesson, children can copy down the two other stories into their notebooks.

Copy out the “I Can/We Can” chart onto a large piece of paper and have a felt pen children can use to vote for the actions they will take,

## Lesson materials

(Optional) The national immunization schedule and/or copies for each child to take home.

## How to conduct a 60-minute lesson on Immunization for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about immunization into the Question Box. Questions can be answered during a future health lesson.

### 2. Quiz (5 minutes):

Conduct this 10-question quiz before and after the lesson. Read each question aloud. Ask for a show of hands and note down the numbers of hands shown. The quiz should be very quick. When conducting the quiz before the lesson, do not give the answers.

Immunization Quiz ( <i>hands up if ‘yes’ is the answer</i> )	
1. Do you know what immunizations are?	6. Does immunization protect children from getting many dangerous diseases? (YES)
2. Do you know how immunizations protect the body?	7. Can children die of a disease if they have not been immunized? (YES)
3. Do you know where in our community babies are immunized?	8. Do you know if you have been immunized?
4. Is immunization done once? (NO)	9. Does our country tell us what immunizations we need? (YES)
5. Do you know the name of any diseases that immunization protect us from?	10. If a baby has a slight cold (or is a little unwell) on the day of the immunization should they have their injections? (YES)

### 3. Activity one (20 minutes)

- Divide the children into three groups. Give one of the following three stories to each group. Each group will read their story and discuss what the story teaches them about immunization.

1. Our village is not far from the health center. The immunization clinic takes place regularly. Most families bring their children, but one family never goes. They are among the most successful farmers in the community. The father is strong and healthy. “Why should I take my children to the clinic?” he laughs. “The clinic is for sick people. We are happy and lucky. Our children will not be ill.” They had a 10-year-old daughter, who went to school. When the youngest baby was born, the daughter pleaded with her parents to take her baby brother to the clinic. She had learned about immunization in school. Her parents would not listen to her. Then the two younger children got tuberculosis. The baby died and the three year old is still very weak.

#### Lessons from this story

- *Immunization is for everyone – even healthy children,*
- *Children from successful and strong families can get diseases,*
- *Children can understand health messages,*
- *Tuberculosis can lead to death and disability, but it is preventable.*

2. I live in a town with my mother, brother, and baby sister. Our father went away. We do not see him anymore. The baby is still small and when she was six weeks old my mother took her to be immunized. She was told to come back four weeks later for the baby’s second immunization. But when the time came my baby sister had a cold and our neighbor advised my mother not to take her to the clinic. My mother never took my sister to the clinic after that. I think she was worried about what the health worker would say to her. Then our neighbor’s boy caught whooping cough, and our baby caught it too. She has been coughing, vomiting, losing weight, and becoming weak. Sometimes she goes blue with the cough. The health worker has been talking to my mother. I am afraid our baby may die.

#### Lessons from this story

- *It is important that immunizations are completed,*
- *Even if babies have a cold, take them to the clinic,*
- *Do not be afraid of what a health worker might say – it is better to get a baby immunized than not,*
- *Immunizations help protect babies from life-threatening diseases.*

3. We live in a big house outside town. My family is rich and they only have two children, me and my brother, who is one-year old. I know my parents took him to be immunized four times when he was very small, but I don’t think they ever took him for the measles immunization when he was nine-months old. He was healthy, and I heard my uncle tell my parents that healthy children don’t need to be taken. Then, last month, I caught measles. I wasn’t very sick, but then my brother caught it. It was terrible. He had a high fever for six days with red eyes, a runny nose, noisy breathing and a cough. He had a rash all over. On the sixth day, his breathing got worse. They told me he had caught pneumonia. A doctor came to the house. They tried to save him, but it was too late.

#### Lessons from this story:

- *Rich, healthy children can get diseases and die from them,*
- *Take babies for all their immunizations, and complete the full cycle.*

### 4. Activity two: Question and answer (15 minutes) *Using question and answer, teach the children fact about Immunization.*

- *Question: What is immunization? Answer: Immunization is an injection or a drop given into the mouth that protects against disease.*
- *Question: What are the main killer diseases that are prevented by immunization? Answer: Measles, diphtheria, tuberculosis, tetanus, polio and whooping cough (this may need to be adapted for your area).*



- *Question: How does immunization work?* Answer: Immunization builds protection in the body by developing antibodies. These antibodies fight against the germs that cause diseases.
- *Question: At what age should a child have completed all his/her immunizations?* Answer: All children should have completed their childhood immunizations before their first birthday, according to the national guidelines. As they get older, children may need booster shots or additional immunizations. (Consult with a health worker in your area.)

#### 5. Activity three: What we can do to help children become immunized (15 minutes)

- (If you have it) Show the national immunization schedule to the children. If they are available give each child a copy to take home.
- Show and explain this “We Can” list to the children. Ask them to choose three actions they would be happy to take to help make sure children in the community are immunized.

#### We can

- Help take the baby to the clinic for immunization at the right time.
- Help look after babies after immunization, and comfort them if they feel unwell and cry.
- Look after other children when my mother goes to the clinic.
- Find out who has been immunized in their families. Which children in class have brothers and sisters under two years old? Have they all been immunized? If not, what was the reason? (Children check with their families and report back.) What action can be taken?
- Tell stories that describe what happened to children who were not immunized. The stories should help other children and adults to understand that babies must be immunized in their first year of life and that babies who are not immunized may get very sick and die.
- Remind parents and guardians to look at the baby’s clinic card and the birthday card, to remind them when immunizations are due.
- List reasons why families do not immunize their children and why the reasons are wrong.
- Prepare, with adults, for the visit of the immunization team or health worker to the community.
- “Adopt” a family nearby to ensure that they understand about immunization and bring all their children to be immunized.

- Ask the children to discuss with two other children how their actions can be checked.
- Collect these “monitoring ideas” to make a chart for the classroom wall.

### Concluding activity (5 minutes)

Conduct the quiz again recording the numbers.

### Homework activity

- Children can prepare to ask their grandparents or older neighbors questions such as: *What happened before immunization? What diseases did babies and young children get? How serious were they? What happened to the babies and young children who got these diseases?*
- Children copy out the chart below to record their answers

What happened to the children?				
Disease	Got well	Became malnourished	Was disabled	Died
Polio	X	XXX	XXX	
Measles	Xx	Xx		XXX

- Children can speak to their grandparents or neighbors, introducing the topic to them and conducting the interview.
- Children share the information they collected and discuss the results.
  - *Which diseases were important causes of malnutrition?*
  - *Which diseases often resulted in disability?*
  - *Which diseases could have been prevented with immunization?*

The educator needs to stress the importance of protecting young children with immunization during the first year of life.

- Children look again at an immunization schedule and discuss.
  - *Which diseases does the immunization program protect children against?*
  - *At what ages does the program recommend that immunization should be given?*
  - *Where and when are immunizations given?*
  - *How do people find out about them?*
- Children plan how to promote the immunization of young children.

Immunization as a topic in other subjects	
<b>Mathematics</b>	Using the results of an immunization survey, asking who in the class has been immunized against which diseases, children can find out the ratio of those immunized to those not immunized for each of the four major immunizations.
<b>Social Studies</b>	Children can learn more about the diseases that immunization can prevent. They can make a chart to show this and make up a drama about the “killer disease” and their different characters. For example, measles. Measles causes high fever, red eyes, a runny nose, noisy breathing and a rash all over. Measles can make children weak for a long time and during this time the child can catch other diseases easily. Measles can also lead to blindness.
<b>Art</b>	<p>Children can make birthday cards to take home for a new baby in the family or neighborhood, and hang the cards on the wall as a reminder. The class can help to design the card, so that it shows the right times for the local immunization program and for the national immunization schedule.</p> <p>Children make posters about immunization and display them in a place where everyone will see them</p>



## Lesson 15: Injury Prevention

### Background information<sup>1</sup>

Injuries are a leading cause of death and a major cause of disability among young children. Every year, 750,000 children die from injuries. Another 400 million children are seriously hurt. Many injuries lead to permanent disability and brain damage.

The most common injuries are falls, burns, drowning, and road accidents. Most of these injuries happen in or near the home and almost all of them can be prevented. Children have an important role in helping to prevent injuries. The consequences of many injuries would be less serious if parents and older children knew what to do when an injury happens.

Children and especially young children between 18 months and four-years old are at high risk of death and serious injuries from:

- Burns from fires, stoves, ovens, cooking pots, hot foods, boiling water, steam, hot fats or oils, paraffin lamps, irons, and electrical appliances;
- Cuts from broken glass, knives, scissors, or axes;
- Falls from cots, windows, tables, and stairs;
- Choking on small objects such as coins, buttons, or nuts;
- Poisoning from paraffin (kerosene), insecticide, bleach, and detergents;
- Electrical shock from touching broken electrical appliances or wires or poking sticks or knives into electric outlets.

To prevent **burns** keep young children away from fires, matches, and cigarettes and keep stoves on a flat, raised surface out of the reach of children. If an open cooking fire is used, it should be made on a raised mound of clay, not directly on the ground. Turn the handles of cooking pots away from the reach of children; and keep petrol, paraffin, lamps, matches, candles, lighters, hot irons, and electric cords out of the reach of young children.

Children can be seriously injured if they put their fingers or other objects into electric sockets. Power sockets should be covered to prevent child access. Electric wires should be kept out of children's reach. Bare electric wires are particularly dangerous.

Falls are a common cause of bruises, broken bones, and serious head injuries. Serious falls can be prevented by: discouraging children from climbing onto unsafe places; using railings to guard stairs, windows or balconies; and by keeping the home clean and well lit.

Knives, scissors, sharp or pointed objects, and broken glass can cause serious injuries. These objects should be kept out of children's reach. Older children should be trained to dispose of glass safely, to keep sharp objects out of the reach of younger children, and to handle knives and scissors safely. Sharp metal objects, machinery, and rusty cans can all cause badly infected wounds. Children's play areas should be kept clear of these objects. Household refuse, including broken bottles and old cans, should be disposed of safely.

Young children like to put things in their mouth. Small objects should be kept out of their reach to prevent choking. Play and sleeping areas should be kept free of small objects such as buttons, beads, coins, seeds, and nuts. Very young children should not be given groundnuts (peanuts), hard sweets, or food with small bones or seeds. Young children should always be supervised during meals. Cut or tear children's food into small pieces. Signs that a child is having difficulty breathing or is choking include coughing, gagging, high-pitched noisy breathing, and the inability to make any sound at all. Choking is a life-threatening emergency.

<sup>1</sup> This section is based on information from [www.factsforlifeglobal.com](http://www.factsforlifeglobal.com)

Poisons, medicines, bleach, acid, and liquid fuels such as paraffin (kerosene) should never be stored in drinking bottles. All such liquids and poisons should be kept in clearly marked containers out of children's sight and reach. If poisons are put in soft drink and beer bottles or jars and cups, children may drink them by mistake. All medicines, chemicals, and poisons should be stored in their original containers and should be kept tightly sealed. Poisons are best kept locked in a cupboard or trunk, or put on a high shelf where children cannot see or reach them.

Children can drown in less than two minutes in a very small amount of water. They should never be left alone when they are in or near water. Wells, tubs, and buckets of water should be covered. Children should be taught to swim when they are young as possible to help prevent drowning. Children should be taught never to swim in fast-flowing streams and never to swim alone. They should also be supervised when in the bath as well as when they're playing in water.

Children under five years old are particularly at risk on the roads. They should always have someone with them and they should be taught safe road behavior as soon as they can walk to help prevent them from running out in the road. Children should not play near the road, particularly if they are playing with balls. Children should be taught to walk on the side of the road, facing traffic. When crossing the road, young children should be taught to: stop at the side of the road; look both ways; listen for cars or other vehicles before crossing; hold the hand of another person; and walk across the street, not run.

Bicycle accidents are a frequent cause of injury and death among older children. Families can prevent bicycle accidents if they make sure that children with bicycles are trained in road safety. Children should wear helmets or protective headgear when biking.

Schools, teachers, and children can directly help to prevent injuries by ensuring classrooms and schools provide a safe environment. They can help indirectly by offering advice and lessons to raise awareness about the various dangers. Children can learn about the causes of common injuries in and around the home and in the environment, particularly as they affect children of different ages, and how they can be prevented. Children can know how to get help if there is an accident. Children can learn, demonstrate, and teach road safety rules and regulations. Children can identify if an area is safe or unsafe to play and tell others if they spot hazards. They can watch out for others, particularly younger children, to prevent injury.

## Lesson Plan on Injury Prevention

### Lesson aim

Children will become aware of hazards in the home, school, and community. Children will know how to reduce or prevent injuries, and they will know how to get help in case of injuries.

### Lesson objectives

By the end of the lesson, children must be able to:

- Understand the risks and dangers at home, in the community, and at school,
- Map risks and dangers and understand how to prevent them,
- Seek help after an accident.

### Lesson preparation

Before teaching this lesson, the teacher must learn what types of accidents are common in the community. The teacher can collect information with the help of the children and, if possible, local health workers. This lesson will be most effective if it is relevant. As the types of house and the proximity of roads or water sources to the homes of the children vary, the teacher needs to adapt the activities and the materials to make sure the lesson is as relevant as possible.

As many of the learning points in this lesson are related to awareness raising among the children rather than new knowledge, the usual format of having a quiz and a question and answer at the beginning of the session is replaced with an additional activity.

### Lesson materials

You will need pictures of hazardous environments and safe environments, e.g. in a kitchen and outside. Change the sample pictures to reflect the dangers in the children's own environments. If possible, use photographs of actual locations in the community.

## How to conduct a 60-minute lesson on injury prevention for 8-10 year olds.

1. **Question box:** Remind the children that they can put any questions they like about injury prevention into the Question Box. Questions can be answered during a future health lesson

### 2. Activity One: Picture (20 minutes)

1. Using a picture (or photos) of safe and unsafe environments, ask children to examine what is different in the two pictures and make a list of ideas.
2. In the whole group, discuss the children's lists. Make sure that the following key points are covered: the most common household accidents are burns, cuts, falls, electrical shocks, choking, and poisoning; that the kitchen is dangerous, especially for young children; and most accidents are preventable.
3. Ask the children what they should do they see someone become injured. In this this age group (8-10), the advice is to get help. Older children may be taught first aid and when it's appropriate to do first aid or to get help.

### 3. Activity Two: The 'But Why' Game (20 minutes)

1. With the whole group, play the 'but why' game so children think about the reasons behind the injuries. Here are two examples:
  - The baby cut herself on the knife – but why?
  - Because the knife was on the floor – but why?
  - Because her older brother dropped it

*Problem = how to teach the older brother to be more aware of dangers to the baby*

- The toddler burnt herself on the pot – but why?
- Because the pot is on the floor over the fire – but why?
- Because there is no money for a raised cooking fire

*Problem = how to screen the fire from the toddler until the toddler is old enough to learn that the fire is hot and dangerous*

2. Discuss and practice how to cross roads and streets safely. Practice looking both ways before crossing the road. Practice listening for oncoming cars, motorbikes, trucks, and bicycles. Practice this in the playground at the next opportunity setting up an imaginary road.
3. Ask children to put forward ideas to keep their own communities safe and to prevent the six common household accidents. (Children can draw these in their notebooks later.)

A survey of Injuries		
In the school/community	Just outside the house	In the house
A child was knocked down by a bicycle when crossing the road and broke his arm.	A baby swallowed stones.	A child burned himself of the stove.
A child got a very bad cut from glass they stepped on in an area where many children play.	A baby ate grass cuttings.	A baby hit her head on the edge of a table.



5. After the charts are filled in, children can discuss how the injuries could have been prevented in their groups.
6. In the large group, children can present their charts and the class can talk about how injuries could have been prevented.

### **Homework Activity**

Ask children to ask several members of their family two questions:

1. What accidents have happened you or to people that you know?
2. What could have prevented that accident?

## **Ideas to develop the lesson on injury prevention**

### **Home Survey**

1. Children conduct the classroom survey but in their homes with their families
2. After children have done their homework, discuss the assignment using the following questions:
  - *What did you find out from the survey?*
  - *How will these results help us plan action?*
  - *Why is it important to take action?*
  - *What injury prevention messages are important to spread?*
  - *Who will we spread injury prevention messages to?*
  - *What actions can children take at home, in school, or in the community to prevent injuries? What actions can children take with assistance from an adult?*

Examples of actions: Children identify potential dangers in their own homes and tell their parents or take action on their own to make the home safer; Children plan and perform a puppet show about a common home accident such as a burn, poisoning, electric shock, fire, fall, or cut to raise awareness. They spread messages about how to prevent an accident and how to help people who have had an accident.

### **Listening to Parents**

Ask two parents to come into the group and talk to the children about an accident that happened in the home: what happened, why it happened, and how it could have been prevented.

## Making a First Aid Kit

Children, aged 8-10, can make a first aid kit with help from adults and they can ensure the first aid kit is maintained. Here are some ideas from Bangladesh about what should be contained in a first aid kit.

The contents of a first aid box	
Item	Use
Plain scissors (6 inch)	For cutting gauze, bandage and cloth
Tweezers plain (5 inch)	To remove foreign body from the wound
Savlon, Dettol	To use as antiseptic liquid
Tincture, benzoin bottle	To use as antiseptic liquid (benzene seal), soaked by cotton on small wound
Tab. Paracetamol 500 mg	To use as oral analgesic/ reduce temperature
Tab. Histamine	To use as oral antihistamine for allergy
Gauze, bandage	To use for dressing after cleaning
Adhesive stripe bandage	To use for dressing after cleaning
Micro pore	Adhesive tape to close gauze and bandage
Clinical thermometer	To determine body temperature
Plastic bag	To carry ice or other things
Cotton (sterile)	To clean the wound
Splint	To use as aid stick for bone fracture
Tourniquets	To use as ligature to reduce huge bleeding

It is useful for older children (over 10-years old) to be taught simple first aid skills as they are often supervising younger children.

Injury prevention as a topic in other subjects	
<b>Social Studies</b>	Children can learn about a first aid kit and what needs to be in a first aid kit at home and at school.
<b>Music</b>	<p>Children can make up a song about road safety to a popular tune, and teach it to young children.</p> <p>Create drawings of hazards such as:</p> <ul style="list-style-type: none"> <li>• A school on a wide straight road with heavy lorry traffic,</li> <li>• A bend on the road with trees and bushes alongside,</li> <li>• A playground on a street with many parked cars.</li> </ul>
<b>Art</b>	Show the drawings to younger children and discuss: <i>where and why injuries can happen? What can be done to prevent injuries?</i>



## Lesson 16: Tobacco, Alcohol, and Other Drug-Use Prevention

Drugs are chemicals that alter people's minds and bodies. "Drugs" is a broad category that includes tobacco, alcohol, prescription, and over-the-counter medicines as well as illegal drugs. Drugs alter our senses, which can impact our ability to drive a car, ride a bicycle, operate a computer, communicate clearly, or monitor the safety of children. The chemicals in alcohol, tobacco, prescription drugs, and illegal drugs can shorten our lives and increase our chances for injury. Some drugs, like alcohol, are strongly associated with forms of violence. Drugs, whether legal or illegal, are part of our lives, and it's important for children to know how avoid using them.

Children might see their parents or older children smoking, drinking, and even taking illegal drugs on a regular basis. This observation makes it very easy for them to think of the harmful substances as "normal" and underestimate the harm drugs and alcohol can do. In most countries, smoking and drinking alcohol are legal and are done openly, whereas taking drugs is often illegal. Smoking, drinking, and using drugs may lead to anti-social or risky-behavior.

Alcohol, tobacco, and drugs are harmful for everyone who takes them and they are especially harmful to children who are growing, developing, and learning in school. Addictions to harmful substances can lead to life-threatening diseases and health problems that are difficult and expensive to treat.

### About Alcohol

Alcohol can be used in moderation by many adults without negative effects. Drinking alcohol can be seen as a part of adult celebrations, consumed at weddings, work promotions, and sporting events. Of those people who do drink alcohol, there are some who do not drink in moderation. Such drinking can lead to serious health and safety problems. Alcohol interferes with a person's perception of reality and ability to make good decisions. This can be particularly hazardous for kids and teens that have less problem-solving and decision-making experience. Most countries have a legal age for drinking alcohol. Children should not drink alcohol before the legal drinking age, and they should be able to say "no," if they are pressured to try.

Short-term effects of drinking include:

- Distorted vision, hearing, and coordination,
- Altered perceptions and emotions,
- Impaired judgment, which can lead to accidents, drowning, and other risky behaviors like unsafe sex and drug use,
- Bad breath,
- Hangovers – intense headache or stomachache with vomiting, lasting for several hours after drinking,

Long-term effects include:

- Cirrhosis and cancer of the liver,
- Loss of appetite,
- Serious vitamin deficiencies,
- Stomach ailments,
- Heart and central nervous system damage,
- Memory loss,
- An increased risk of impotence,
- High risk for overdosing,

## About Tobacco

Tobacco is widely used in many environments. It comes in several forms, including cigarettes, bidis, cigars, snuff, and chewing tobacco. There is no safe form of tobacco. Tobacco contains a chemical called nicotine. Nicotine is extremely addictive. Addictive means that even when you want to stop using it, your brain tells you that you want to keep using it. Nicotine is so powerful that a person can get addicted within the first day of using it. Smoking cigarettes is the most powerful way for nicotine to enter the body, which is why smoking is most-widely practiced way to take tobacco. Although doctors used to recommend smoking cigarettes to help control weight or to help with anxiety, today we realize the severe harm of smoking and second hand smoke.

Tobacco use diminishes health over time. The effects accumulate and result in preventable illnesses, preventable because not using tobacco prevents the disease, and can lead to premature death. Smoking kills nearly half of lifetime users. Other health risks include short-term effects of smoking, such as coughing and throat irritation. Tobacco and nicotine affect the mood, as well as the heart, lungs, stomach, and nervous system. Over time, more serious problems can result, including increases in heart rate and blood pressure, bronchitis, emphysema (small holes in the lungs), and cancer.

Smoking also harms people who do not smoke. People who sit near a smoker inhale the smoke that the smoker exhales and the smoke that comes off the tip of the cigarette. This is called “passive smoking” or “breathing secondhand smoke.” Secondhand smoke can be just as bad for one’s health as smoking, and children are often greatly affected, as they’re less likely to be able to move away from the smoke. Children can get ear infections and often suffer from coughs and colds. Children who live with smokers are more likely to have asthma and other health problems as they get older.

Other forms of tobacco, such as chewing tobacco (smokeless or spit tobacco), can also lead to nicotine addiction, oral cancer, gum disease, and an increased risk of cardiovascular disease, including heart attacks. Again, there is no safe form of tobacco.

## About Other Drugs

Drugs come in many forms. Marijuana is a common drug in many countries, as are cocaine and heroin. Children may breathe in harmful gases and fumes like aerosols from spray paint and glue. Different drugs affect different parts of the body in different ways. As well as the harm that these substances do directly to a person’s body, the person taking them may take more risks in other areas of their lives while using the substance. For example, taking drugs lowers a person’s ability to make good choices. They may have unprotected sex, drive a car, or ride a bicycle dangerously while drunk or on drugs. In some cases, people who drink or take drugs can become violent to others close to them like their wives, husbands, or children.

Schools, teachers, and children can help to motivate children’s families and communities to spend money on things that help them feel happy and healthy, to promote sports, and to ensure that everyone in the family grows and develops well. It is useful to fit in as much teaching on this topic as possible when children are between the ages of 10 and 14. This is when they can face a lot of pressure to start smoking and take other harmful substances such as drugs and alcohol. However, when children are younger, it is useful to explore the topic more generally as they may be more open to learning about the harmful effects before any peer pressure begins. At the younger ages we need to keep things fun, cover the basics about the substances, and make sure they have a trusted adult they can share with.

# Lesson Plan on Tobacco, Alcohol, and Other Drug-Use Prevention

## Lesson aim

Children can explain what alcohol, tobacco, and drugs are, why they are harmful, and what to do if offered them.

## Lesson objectives

By the end of the lesson, children must be able to:

- Recognize the ways that that cigarette smoking, alcohol (drinking), and drugs are harmful to the health of a person. Know that they are addictive and that the use of harmful substances can lead to many other problems.
- Seek help from a trusted adult if offered harmful substances by others.

## Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of how common and how serious the problems of alcohol, tobacco, and drug use are in the community. They must also understand the legal side of taking drugs, smoking, alcohol consumption, and selling tobacco and alcohol to children. It is useful if the teacher knows or can find out the local names used for alcohol and drugs (for example medical drugs that might be used in other ways, glue, local alcohol, etc.) and to use the local names of the substances in the lesson. Attitudes and laws will vary between cultures and communities.

As there may be children in the class that live in families where adults around them are addicted to harmful substances, ensure that you, as the teacher, have back up and support if a child reveals a difficult personal story. At the beginning of the lesson, it could be useful to tell the children if they have their own story to tell, that they leave this till the end when they can speak with the teacher in private.

In addition, the teacher should gain an understanding of any rehabilitation programs there might be for preventing and treating those addicted to harmful substances in the community. This may not come up in the lesson but it may be useful to know as background and if asked a question about this by a child, an older sibling or a parent as a result of this lesson.

## Lesson materials

Draw a picture of a stop light with green, yellow, and red lights.

Using this table as a guide, create a table of harmful substances that are used in the community where you live. Provide information that is at the right level for the children you are teaching. When the table is complete, copy the table, and cut the table into sections. The table below has five sections. Your table may have more or less. You will be giving one section to each small group of children so you may need more than one table. If you are mentioning unsafe sex you need to have done some work on sex education and sexual intercourse before referring to it here. How much you do on this will depend on the age, stage and cultural context.

Harmful substance	Information about it
1. Alcohol (beer, wine, local brew)	Alcoholic drinks contain a chemical called ethanol. Locally brewed beer or liquor can contain methanol that is very poisonous and can cause blindness. Alcohol causes people to lose coordination in their body and they become slow to react to situations. This can lead to accidents and bad decisions such as fighting (or unsafe sex).
2. Cigarettes and tobacco	Cigarettes are made from tobacco that has been rolled up in thin paper. When it is smoked, the dirty smoky air goes in the body and bloodstream of the smoker. The smoke contains tar, nicotine and carbon monoxide. Smoking makes the body unhealthy. Smoking takes oxygen away from the body and can damage unborn babies if the mother breathes in smoke.
3. Cannabis, Marijuana (dagga)	This drug is smoked like tobacco and causes the same problems as tobacco. It changes the way people think and feel and can lead to risky behavior. It also leads to sleepiness, lack of concentration or memory loss, and makes it difficult to study. It is illegal to grow and smoke cannabis in many countries.
4. Glue, Petrol	Sniffing glue or petrol makes people feel light-headed for a while but it is very dangerous and addictive for the user. It causes loss of sight, inability to think clearly, loss of memory, and poor body control.
5. Medical drugs	Drugs to treat illness should be taken in the correct amounts and obtained from a qualified health worker or drug store. Buying drugs from the market is dangerous because the drugs maybe the wrong ones for the illness. They may be fake, old or given in the wrong does. This is why strong medications are only given legally by a trained person.

## How to conduct a 60-minute lesson on Tobacco, Alcohol, and Other Drug-Use Prevention for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about tobacco, alcohol, and other drugs into the Question Box. Questions can be answered during a future health lesson.

### 2. Activity one: What are tobacco, alcohol, and other drugs? (30 minutes):

1. Divide the children into small groups and give each group one of the slips of paper with the details of one harmful substance and information about it (see above).
2. Ask the children to learn about the information linked to the harmful substance. Suggest that they read it out and then test each other on different parts of the information. At least one child in the group must prepare to explain why the substance is harmful to the whole group.
3. In the whole group ask one child from each small group to stand up and give information about the harmful substance. At the end encourage all children to ask questions.
4. Back in their groups or in pairs, ask the children to make up a short story on two friends who take this harmful substance and what happens to them. Depending on time this can be prepared as an oral story or a written story. (The topic might be too sensitive to do role-plays).
5. Select one or two stories to share with the whole group.

### 3. Activity two: Stop, think, choose (10 minutes):

1. Ask children what choices they make every day (get up on time for school or stay in bed, eat healthy food or junk food, walk in a straight line at school or stray out of line, sit quietly in seat or move around a lot). List these and other ideas on the board.
2. Ask, "Has anyone ever been asked to do something that was not very nice that you did not want to do?" List some examples: say a mean thing to someone, tell a lie for someone, steal something, or be mean to an animal.
3. What should we do when we are asked to do something? (Show the stop light: red = stop, yellow = think, green = choose.)
4. Explain to students that they should stop and think about what they are about to do, and then choose not to do it.
5. Say to the students, "If someone asks you to do something not nice, what would you do? Show the stoplight as everyone says, "Stop, think, choose!."

### Activity three: Resisting peer pressure (15 minutes):

1. Ask the whole group of children to think about the reasons why children or adults might begin to use harmful substances. Here are some ideas for answers they might give:
  - They see other people smoking and think it is harmless, normal and even fun.
  - They feel it is 'cool' to accept harmful substances like cigarettes or a drink and they feel shy about refusing these things, as they want to fit in with the group.
  - They see advertisements that encourage people to buy cigarettes and alcohol, and they believe that it is a necessary part of a successful life.
2. Divide children into pairs and give each pair either the topic of smoking, alcohol, or drugs.
3. As each pair to work out a dialogue where one person in the pair offers the other person the harmful substance. The person offering must put all the arguments to persuade the other to take the substance while the person on the other side must put the argument for resisting taking the harmful substance.

<sup>1</sup> Florida Statewide Tobacco Prevention Course for School teachers and Guidance Counselors



4. Depending on time, select two or three pairs to act out the dialogue.
5. In the whole group, discuss the reasons why people start to take harmful substances, the bad things about the substance, and how much they would need to take the harmful substance regularly. (This may be suitable for older age groups only.)
6. If not doing the activity above, play the “best response game”
  - Ask children to form groups of three to five.
  - Each team sits together and selects a leader.
  - The leader reads something a person might say to convince a young person to use a drug or alcohol. Then the team develops their “best response” to refuse it. (This could be written down or only down orally).
  - Give them 1 minute.
  - The teacher reads all the responses from each group and the whole group of children vote for the best answer.

Questions	Possible answers
<b>Why do you do smoke?</b>	<ul style="list-style-type: none"> <li>• It looks good (grown up).</li> <li>• The film stars and the people in the advertisements look cool when they smoke.</li> <li>• To feel part of a group by sharing the smoking activity, the cigarettes, and the lighting of the cigarettes.</li> <li>• My parents and their friends do it (and even my pastor does it).</li> <li>• To get a buzz from the tobacco.</li> <li>• To show friends I have the money for tobacco.</li> <li>• To do something with my hands.</li> <li>• It helps me to forget my troubles.</li> <li>• It helps me think.</li> <li>• It helps me to relax.</li> <li>• It is something to do when I’m bored.</li> <li>• It’s a habit.</li> <li>• I can’t stop.</li> </ul>
<b>What are the bad things about smoking?</b>	<ul style="list-style-type: none"> <li>• It harms your lungs.</li> <li>• It harms the lungs of the people who breathe in your smoke.</li> <li>• It is especially harmful to unborn babies in the womb, babies, and children when they breathe the smoke.</li> <li>• It makes your house, your breath, and your clothes smell bad.</li> <li>• It makes you less fit and less able to run fast.</li> <li>• It can give you an incurable disease.</li> <li>• It is expensive.</li> <li>• It becomes a habit, which is very difficult to give up.</li> </ul>
<b>How much do you spend on smoking each week?</b>	

Repeat this exercise with other harmful substances.

### 3. Concluding activity (5 minutes)

1. In the whole group, ask the children to think about what they should do and whom they should go to if any one actually offers them a harmful substance. If possible, it would be useful to get each child to write this down and share this idea with one other person and if appropriate in the whole group.
2. Encourage the children to use the question box if they have any questions about the harmful substances.

### Homework Activity

Children can observe in the community where there are advertisements for harmful substances (on bill boards, in shops, kiosks, on the radio and TV) and work out: the message that these advertisements are trying to send, the tricks being used to persuade people to buy their products, and how successful they think the advertisement is in doing this.

Children can ask family members to tell them what they think are the bad points of drinking too much alcohol and smoking and what the different methods are that they know people can use to stop or reduce the use of harmful substances. Together we fill in a chart like this:

Harmful substances	Method Used to stop
Cigarette	Chew bubblegum when you feel like smoking
Dagga	

### Ideas to develop the lesson on tobacco, alcohol, and other drug-use prevention

#### Making a smoking machine

- With the children, make a model of a smoker, using a plastic bottle with a hole made in it. You will need:
  - A plastic bottle with well-fitting lid and a cigarette-sized hole
  - A cigarette
  - Matches
- Light and place the cigarette in the hole. Squeeze and release the bottle to make the model “smoke”.
- Let the children open the bottle and look at and smell it.
- Explain some basic facts about smoking:
  - Chemicals from cigarettes stay in the lungs and stop them from working properly.
  - Smokers are unfit and more likely to die young from lung cancer and heart attacks.
  - Unborn babies and children with family members who smoke are forced to be passive smokers.
- Ask children to draw the smoking machine and write what they see inside and describe the smell.

## **Tobacco, alcohol, and other drug-use prevention as a topic in other subjects**

### **Social Studies**

Ask children to look out for one or two advertisements for cigarettes (on TV, in magazines, on billboards, in shops). Think about what the ads look like and how the advertisement is trying to make people buy the cigarettes. What is the “hidden message”?

### **Art**

Using a cigarette or alcohol advertisement, ask the children to recreate the advertisement using the truth about smoking or drinking. Ask them to think about what the advertisement would look like if it were selling the truth about cigarettes or alcohol. Use crayons or markers to draw the new anti-cigarette or anti-alcohol advertisement. Children can then share their drawings with the class or hang them up in the school.

### **Language**

All the children can write an imaginary letter about a situation in which they have been encouraged to take a harmful substance. For example a friend at school has suggested they try smoking or take a drug. Ask the children to write a letter explaining what happened and why it was hard to refuse. These letters get put into a box and the children then take out a letter at random and write an answer to the question. This activity can be done as a role-play using speaking instead of writing.



Student, Ruth Maile Carrillo Quispe, age 9, taking an iron supplement. She attends the Walter Alpire Duran School in El Alto, Bolivia.

*Michael Bisceglie*

# Section 5:

## Nutrition

### Lesson 17: Nutrition and Balanced Diet: GO! GROW! GLOW!

#### Background information

Everyone needs a balanced diet to stay healthy and active. Children need to eat a variety of foods to grow, develop, and be strong. Foods are made up of different elements that work in different ways in our bodies. Some elements give us energy to work and play, others help us grow and build bones and muscle, still others help keep us healthy and protect us from disease.

#### Energy yielding foods (carbohydrates): GO!

GO foods give us energy to be active, work, and learn each day. People who do physical labor, children, and pregnant and breastfeeding women need lots of these foods to stay healthy. GO foods include grains like maize, millet, rice, wheat, and sweet food like sugarcane, honey, sugar, and roots like potato, yam, and sweet potato. Fats like margarine and oils are also GO foods.

#### Body building foods (protein): GROW!

GROW foods work in the body to help us grow and keep us strong and healthy. School age children should grow a few centimeters and gain a few kilograms each year. Pregnant and breastfeeding women and anyone who is sick should also get enough protein. Examples of GROW foods are fish, meat, eggs, milk products, some grains, beans, seeds, and nuts. Meat can be expensive, but legumes/pulses like beans and groundnuts are good protein foods.

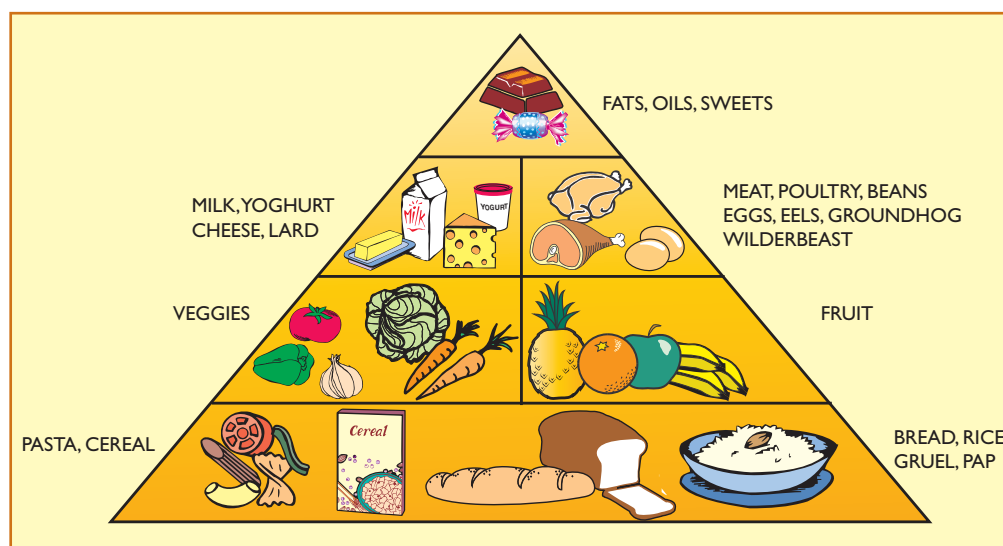
#### Body protecting foods (vitamins and minerals): GLOW!

Vitamins and minerals help protect us from diseases by helping our bodies work well and fight off illness. All foods have some vitamins and minerals, but fruits and vegetables are especially good GLOW foods. Eating fruits and vegetables of many colors is an easy way to get what we need. For example, mango, banana, papaya, oranges, green leafy vegetables, okra, cauliflower, and pumpkin are all high in vitamins and minerals.

#### Balanced diet

A balanced diet is one where a person is eating the correct amount of a combination of GO, GROW, and GLOW foods. It is important for children, to eat six times each day (three meals and three snacks). Eating in this way will give children the energy they need throughout the day better than if they only eat two or three times a day. This food pyramid diagram shows us the proportions of GO, GLOW, and GO foods that are needed: The broad base of the pyramid includes grains, cereals, rice and other grains (white bread made commercially is not nutritious). Children should have a lot of these GO foods. Fruits and vegetables make up the next layer, and children should have a good amount of these GLOW foods. Milk and dairy products, poultry, eggs, fish, beans, and nuts are the next layer and children should have some amount of these GROW foods. Lastly, at the top of the pyramid we have fats, oils, and sweet things like honey or sugarcane, which children should eat sparingly. Avoid junk food like sweets, soda, white bread, and commercially produced jam. These take away the appetite for good food, cause dental decay, and form bad habits.

## Food Pyramid



Each child's appetite and body works slightly differently, so one has to judge the amount they need. Close attention needs to be paid when someone eats too much or too little. Both are harmful to health and wellbeing.

There are a wide variety of complicated cultural and environmental reasons why many people do not have a balanced diet, do not give their children a balanced diet, or eat junk food. It is important that teaching on nutrition and balanced diets embraces this complexity. Also locally available and culturally acceptable GO, GROW, and GLOW foods must be promoted – only then will it impact on behavior change. It is hard for children to change nutrition practices at home so teaching on nutrition and balanced diet needs to include the family and community through various means (community campaigns, parenting sessions, etc.).

## Nutrition and balanced diet lesson plan

### Lesson aim

Children are able to identify and explain what a balanced diet is and what challenges children and families have to achieving a balanced diet. Children will also be able to contribute to solving these challenges.

### Lesson objectives

By the end of the lesson, children must be able to:

- Be able to explain what a balanced diet is using the terms: GO, GROW, and GLOW,
- Understand that boys and girls need equal amounts of food,
- Understand the food challenges in the family, school, and community and how children can contribute to overcoming them.

### Lesson preparation

Before teaching this lesson, the teacher must gain as complete an understanding as possible of the problems the children must overcome to achieve a balanced diet in their families. For example, what local communities tend to eat and how and why their daily diets may not be balanced. The teacher could talk to the local health worker to help understand the issues better. The teacher also needs to know what local foods fit into each food group.

### Lesson materials

- Ask the children to bring in examples of food in each of the three food groups and/or draw or cut out pictures (from newspapers, magazines, posters) of food from each food group for the food pyramid exercise.
- Decide what you are going to use to create the shape and outline for a food pyramid (paper, an outline drawn in sand, or a chalk outline on the floor or a table). If relevant draw the shape of the food pyramid in advance of the lesson.

- A large sheet or paper and a felt pen for the food pyramid, or chalk, or a stick to draw the food pyramid in sand outside the classroom.

## How to conduct a 60-minute lesson on nutrition and balanced diet for 8-10 year olds

- 1. Question box:** Remind the children that they can put any questions they like about nutrition and balanced diet into the Question Box. Questions can be answered during a future health lesson.
- 2. Quiz (5 minutes):** Conduct this 10-question quiz before and after the lesson on nutrition and balanced diets. Read out each question. Ask for a show of hands and note down the numbers.

Nutrition and balanced diet quiz ( <i>hands up if 'yes' is the answer</i> )	
1. Who knows what the word, "nutrition" means?	6. Who can name three types of foods that help your body grow?
2. Who knows what a "balanced diet" is?	7. Who knows how many times a child your age should eat each day?
3. Who knows which three kinds of foods we need to eat every day?	8. Hands up if you agree to this statement: If a child has a balanced diet they will grow well and have fewer illnesses?
4. How many times per day do you eat? Options: 2, 3, or 6 times.	9. Who can name three types of foods that give you energy?
5. Who can name three types of food that protect your body from disease?	10. Who knows what a vitamin is?

- 3. Activity one: Question and answer (10 minutes):** Ask the children basic questions and then give them the answer.
  - Question: What is a balanced diet? Answer: A variety of food in the right amounts.
  - Question: What happens when people do not have a balanced diet? Answer: They become weak and they catch diseases easily. They become malnourished and are less able to grow into big strong adults.
  - Question: What three types of food groups do we need to have a balanced diet? Answer: GO, GROW, and GLOW.
  - Question: What does a child with a balanced diet look like and feel like? Answer: Healthy, active, and growing well.
  - Question: Give two examples of food from each of the three food groups. Answer: GO: rice and maize; GROW: meat and beans; GLOW: avocados and bananas.
  - Question: Give three reasons why children do not get a balanced diet? Answer: People do not know what a balanced diet is, people do not grow enough of the right foods, and people are poor and cannot buy the right food.
  - Question: Do boys and girls need equal amounts of food? Answer: Yes, boys and girls have similar needs for food. Bigger children or children who are very active might need more GO food.



#### **4. Activity three: Food pyramid (30 minutes):**

- Gather the children around the shape of the food pyramid the teacher has made.
- Explain the words and phrases: “nutrition”, “GO” foods, “GROW” foods, “GLOW foods, and “balanced diet”.
- Explain that the food pyramid shows us what we need to eat for a balanced diet and in what proportions.
- Using the actual locally sourced items of food plus food that the children’s family grows (if relevant), or pictures of the food, refer to the GO, GROW, and GLOW foods as you place the foods (or pictures) in the correct places on the pyramid.
- Invite the children to ask questions.
- Ask the children to draw the shape of the food pyramid into their notebooks.
- In pairs or threes ask the children to discuss what types of food they eat in a typical week.
- Ask them to draw the foods they eat onto the food pyramid.
- Invite them to comment on whether or not they feel they eat a balanced diet and why.

#### **5. Concluding activity (15 minutes)**

- Conduct the quiz again recording the numbers.
- Ask children to work in groups to answer one of the ten questions above on nutrition and balanced diets.
- Ask the groups to share their answers.
- Invite children to talk about their lesson at home and put any questions they or their family has in the question box.

#### **Homework activity**

1. Ask the children to make a family food diary. In this diary they record what one child and one adult in the family eats each day for a week.
2. Ask children to show their family the food pyramid drawn in their notebooks, to explain what it means, and to collect any questions members of the family ask.

#### **Idea for a nutrition and balanced diet, optional extra activity (10 minutes)**

Ask a health worker to look at the children’s food diaries and comment on what is good and what needs improving. If possible ask the health workers to address the children in the class or the school and talk to them about the findings. If there is a particular food habit that needs to change? For example, switching to a nutritious porridge breakfast from eating white bread that has few nutrients. Another example might be the need for girls to be fed the same amount as boys.

## Nutrition and balanced diet as a topic in other subjects

### Mathematics

Children carry out a class survey to find out how many meals each child in the class ate yesterday. They can display the results in the form of a bar chart. They can repeat the survey in their own homes.

Give children an imaginary budget for a week. Find out the real prices of food items. In groups, ask them to list the food that is needed to feed a family for a week and how much this will cost if all of it needed to be bought. Children collect pictures from newspapers or magazines or they make pictures of locally available foods. They cut these out and paste them on to a big version of the food pyramid that can be pinned to the classroom wall. Help them by providing prices.

### Language

Children create a spelling list of locally available foods. In pairs or threes, they give each other and then correct the test.

Children create stories about a family that have a balanced diet and a family that eat enough food but eat a diet that is not balanced. They talk about what happened to the children in that family. They can act, tell, or write the story. Invite children to comment on the story. Was it fun – was it interesting, was it accurate?

### Music

Children make up a song about balanced diet and/or they adapt a traditional song and give it new words. They sing this song at a community event.

### Art

Children collect pictures from newspapers or magazines or they make pictures of locally available foods. They cut these out and paste them on to a big version of the food pyramid that can be pinned to the classroom wall.



## Lesson 18: Micronutrient Deficiencies

A micronutrient is an element in food (a nutrient), which is required by humans and other living things throughout life in very small quantities. Micronutrients support a whole range of functions and the body cannot function well without them. A micronutrient deficiency is when a person is not getting these nutrients or not getting them in enough quantities to develop and function well. The three most widespread micronutrient deficiencies are in **iron, iodine, and vitamin A**, but there are others that cause serious problems from example: vitamin C, vitamin D, and folic acid. Micronutrient deficiencies are invisible. Many children suffer from them but it's hard to see if a child is deficient.

The fight against nutritional deficiencies needs to be matched to the local context. Four strategies are needed:

1. Increase the intake of foods containing micronutrients needed for health by eating nutritious foods, promoting breastfeeding for infants, taking supplements and eating foods fortified with vitamins and minerals where necessary (such as iodized salt, oil or bread).
2. Control diseases through immunization, getting dewormed regularly, wearing shoes to prevent hookworm infection, using Long Lasting Insecticide Treated Nets (mosquito nets) to prevent malaria, washing hands with soap at key times and using a latrine to avoid diarrhea and worm infections
3. Improve the health of the environment by ensuring access to clean safe water, latrines, and handwashing facilities.
4. Eat a balanced diet.

Here is specific information on the three most important micronutrient deficiencies.

**Iron** is a mineral that is found in some foods and is necessary for us to be healthy. It helps keep our blood healthy by working to create red blood cells. If we do not have enough iron we develop anemia. Iron-deficiency anaemia is the most common and widespread nutritional disorder in the world. It was estimated that 53% of school age children have iron-deficiency anemia.

Anemia means we are lacking important elements that blood is made of. People with anemia do not have enough red blood cells. The signs and symptoms of anemia include: Feeling tired; No desire to work, study or play; paleness of the tongue and inside the lips; dizziness and headaches; loss of appetite and nausea; and feeling breathless or having a fast heartbeat, even with light work. Anemia makes it hard for children to learn and they may learn more slowly. Anemia increases the chance that a pregnant woman will die in childbirth. Anemia damages the growth and development of young children.

Some chemicals, like the ones found in tea, coffee, tobacco, and alcohol, make it hard for our body to use iron if we take them at the same time as we take foods with iron. Worms, especially hookworm or schistosomiasis, cause blood and iron loss.

To prevent anemia, eat foods rich in iron and vitamin C. The best iron-rich foods are the meat of animals, birds and fish (especially liver), and dark green leafy vegetables. There is some iron in cereals (especially porridges), legumes, and seeds. Vitamin C, found in fruits like oranges, helps the body absorb iron. Wear shoes or sandals to prevent hookworm infestation. Use the latrine, drink safe water, and wash your hands regularly with soap to prevent disease transmission. You can also take de-worming tablets every six months, or as recommended by a health worker. You should consult the health center if symptoms of anemia are observed.

**Vitamin A** is essential to keeping our eyes and vision healthy. Vitamin A makes skin strong and healthy. It prevents problems like diarrhea, measles, and malnutrition. Vitamin A deficiency can cause sight problems and over a long time can even lead to blindness. In children, it weakens the body's ability to get over illnesses like diarrhea and measles. In pregnant women it causes night blindness and may increase the risk of maternal mortality.

Vitamin A is in meat, fish, eggs, butter, cheese, red palm oil, dark green leafy vegetables, orange-fleshed sweet potatoes and many other yellow-fleshed foods. When we have access to vitamin A rich food, we can eat a lot of it to store it. Artificial high-dose vitamin A supplements come in a capsule or syrup. In a few countries, vitamin A has been added to cooking oils, sugar, wheat and flours, milk and dairy products, and other foods. Vitamin A supplements can be given every four to six months to children aged six-months to five-years and even through primary school. Children with measles should receive vitamin A on the day of diagnosis, a dose on the following day and another dose at least two weeks later. Foods rich in vitamin A can be grown and eaten regularly.

**Iodine** is very important for the development and strength of the brain and the nerves. Iodine is found in food grown in the soil. Soil can lack iodine in some inland areas, especially where there are high mountains or frequent floods. If animals graze on plants grown in iodine rich soil, their meat will contain iodine. Foods grown in iodine rich soil will contain iodine and foods that come from the sea (fish, seashells, sea food) are also high in iodine. Iodine is often added to salt – check the packet.

After years of iodine deficiency, people develop a goiter (a lump below the jaw on the throat). Iodine deficiency makes a person feel the cold easily and it slows down the body and the mind. It can cause mental defects. It can make skin feel dry. In a pregnant woman it can cause miscarriage, low birth weight babies, or babies with disabilities.

To prevent iodine deficiencies, eat food containing iodine or used iodized salt. Iodized salt must be kept in a dark, dry, cool place to keep the iodine active.

## Micronutrient Deficiencies Lesson Plan

### Lesson aim

Children understand what a micronutrient deficiency is, what it does to the body and know that they need a balanced diet for good health. Children know which salt is iodised at the market, which local foods are iron-rich, that they should try to eat more iron-rich foods and which local foods are high in vitamin A.

### Lesson objectives

By the end of the lesson, children must be able to:

- Define “micronutrient” and “deficiency,”
- Name up to two ways to get iron, vitamin A, and iodine into the body,
- Describe diseases related to deficiency in iron, vitamin A, and iodine,
- State four ways to prevent micronutrient deficiency

### Lesson preparation

Before teaching this lesson, the teacher can speak with a health worker to gain an understanding of the micronutrient deficiencies found in the community, how common they are, and how serious they are. In addition, the teacher can find out if there are programs for preventing and treating micronutrient deficiencies. With the help of the children and health workers, if possible, the teacher can collect information about the micronutrient deficiencies. Look over this lesson and ensure that the materials are relevant for the group of children and their families. If not, adapt the questions and the story to focus on what is of most importance. For example, it may be more important to focus on vitamin A vs. iron-deficiency anemia. Collect samples of foods that are a rich source of any micronutrients when a deficiency is common in the community. Also collect both iodized and un-iodized salt to be able to show the difference in packaging.

### Lesson materials

- Write up on the board or copy the three story sections.
- Samples of foods that are a rich source of any micronutrients that are commonly deficient in the community. For example: a dark green leafy vegetable, an orange-fleshed fruit or vegetable, and a packet of iodized salt (if relevant). If possible, these can be labeled with information such as a list of micronutrients the food contains and the diseases it prevents.

## How to conduct a 60-minute lesson on micronutrient deficiencies for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they like about micronutrient deficiencies into the Question Box.

2. **Quiz (10 minutes):** Conduct this 10-question quiz before and after the lesson. Read out each question. Ask for a show of hands and note down the numbers of hands shown. It is supposed to be very quick do not give the answers.

Micronutrient deficiencies quiz ( <i>hands up if 'yes' is the answer</i> )	
1. How many of you know what a micronutrient is?	6. Have you heard of anemia?
2. How many of you know what deficiency means?	7. Do you know what micronutrient deficiency leads to anemia?
3. Do you know what it means to say micronutrient deficiency?	8. Can micronutrients be found in the soil?
4. Do you know a vitamin deficiency that causes sight problems and even blindness?	9. Can wearing shoes help to prevent micronutrient deficiencies?
5. Do you know what micronutrient causes a big lump to form under the jaw or on the neck?	10. Can children help to prevent micronutrient deficiencies in themselves and in their families?

3. **Activity one: Question and answer (20 minutes):** Ask the children basic questions and then give them the answer showing and passing around the samples of food to add interest.

- **Question:** What is a micronutrient? **Answer:** It's a very small element in food (a nutrient), which is required by humans and other living things throughout life in very small quantities.
- **Question:** What is a deficiency? **Answer:** It is when there is not enough of something.
- **Question:** What is a micronutrient deficiency? **Answer:** It is when a person is not getting important nutrients or not getting them in enough quantities to develop and function well.
- **Question:** Is micronutrient deficiency dangerous? **Why?** **Answer:** Yes, because it can cause diseases and development problems and it can make other diseases worse.
- **Question:** How can you prevent micronutrient deficiency? **Answer:** Eating a balanced diet and preventing other diseases. For example, by immunization, by deworming, using bednets, wearing shoes, using a latrine, drinking safe water, and taking extra micronutrients from the health clinic, like vitamin A, when needed.

#### 4. Activity three: Acting stories (25 minutes):

Divide the children into pairs. Assign each pair one section of the story below. After 10 minutes, ask a pair working on the first section of the story to act out the section. Repeat with the second and third sections. Ask the group what they learned from the story.

- a. *Sara and her family lived just outside the city. Sara always felt tired and weak and she looked very pale. She went to school but she did not try hard. She always felt too tired to concentrate properly. At playtime, Sara would sit in the shade – she felt too tired to join in much.*
- b. *Finally, Sara's father took her to the clinic. The health worker did some tests. The health worker told them that Sara had hookworm and that the hookworm had given her anemia. The health worker told them that anemia is a disease caused by lack of iron in the body. Sara does not eat meat often and she does not like the taste of dark green vegetables.*
- c. *The health worker treated the hookworm. She gave Sara some iron pills and told her and her father that she must eat lots of iron rich foods like dark green leafy vegetables. Now the family grows these vegetables in pots outside their house. They all eat a handful of them each day. Sara is growing stronger and is enjoying running around and playing games with her friends.*

(Here is another story. This time it is about vitamin A. It can be divided into sections and retold or acted by the children for their own and others learning.)

*Ali lived high up in the mountains. His family always ate a lot of rice and some meat. Ali got his share but he never ate green vegetables or yellow fruits or vegetables. When Ali was five, he found it hard to see properly in the evening. This was due to too little vitamin A. His sister who was three years old then got measles. She also had too little vitamin A and because of the lack of vitamin A and the measles, Ali's little sister lost her sight.*

At the end of the session, ask the children to tell each other what they have learned from their own and others stories. Depending on time ask the children to share their ideas and opinions. Correct any mistakes.

#### 5. Concluding activity (5 minutes)

Conduct the quiz again, recording the numbers.

#### Homework activity

Ask the children to talk about their lesson at home and collect questions for the question box.

#### Idea for a micronutrient deficiencies optional extra activity

If there is a particular food habit in the community that is contributing to micronutrient deficiency (like using highly processed white bread instead of bread made from freshly milled grains at home, or porridge), do a quick survey with the children so that the group can understand the scale of the food habit. For example, how many people in the class eat white bread? How much do they eat? What does it cost? How often do they eat it? Ask children what can be done to change this habit (if it needs to be changed). Follow up on this activity by involving the children in a community campaign.



## Ideas to develop the lesson on micronutrient deficiencies

### Growing, harvesting, and eating micronutrient-rich food

If the school has a school garden, get the children to make large visible labels on sticks to place beside each of the plants, which state the micronutrients found in each plant. With the help of someone who knows about agriculture, ask for the soil to be tested so that the children can learn the micronutrients present in the soil. If there is not a school garden, visit a garden and conduct a similar exercise. In urban areas, find an urban garden or take the children to the markets to identify the foods rich in specific vitamins. Encourage children to grow, harvest, and then cook one or two plants with a micronutrient rich yield of fruit or vegetables. In urban areas, pots can be used.

Micronutrient deficiencies as a topic in other subjects	
<b>Mathematics</b>	Ask children to do a simple survey of the iron rich and/or the vitamin A rich foods they eat each week. They draw two columns in their notebooks. Each time they eat one of these foods they make a cross. They tell their siblings and parents what they are doing. At the end of the week, the children can work in groups to discuss the numbers, the problems and to put their information together into a bar graph that can be used to explain their results to other children in the class.
<b>Language</b>	Children make up a story about a disease like diarrhea that gets into a child's body through dirty hands. But the diarrhea germ does not grow strong because the body is strong with the correct balance of micronutrients. Each micronutrient like vitamin A, iron, and iodine can have their own personality and character.
<b>Music</b>	Children make up songs about an especially important and locally sourced food – like the avocado, the papaya or the mango. They sing this in their families and at a community event.
<b>Art</b>	Children are divided into groups according to the seasons. Within each season group alone or in pairs, children select one food source to examine and draw or paint. The results are arranged in a seasonal display. Children add labels to identify the micronutrients contained within each food. The display is shown to children in other classes and to the community. Children are on hand to explain their display and what they have learned about micronutrients.



## Lesson 19: Food for Young Children (Under Two Years of Age)

Good nutrition is vital during the first two years of life. Young children need enough of the right food and to eat frequently. They need a variety of nutritious foods. They must not be given foods with little nutrition, such as sweets, soda, sweet drinks made from powder or cordials, white bread, and commercial jam. These items form bad habits and remove the child's appetite. Food such as mashed vegetables, like avocado and banana, a little oil or fat, chopped meat, eggs, protein-rich beans, and fish should be given often. Whenever water is given to children, it must be safe. Breast milk provides the best nutrition for babies and is usually the safest option. When using powdered milk, the safety of each feeding depends on the use of safe water and the cleanliness of the feeding bottle, the rubber nipple, and the hands of the person giving the bottle. For these reasons, babies fed by bottle have a higher risk of diarrheal illness.

From **birth to six months**, when a baby is most at risk, exclusive breastfeeding is the best food. It protects the baby against diarrhea and other common infections. A breastfeeding mother needs a good diet and rest to produce good, plentiful breast milk.

From **six to eight months**, children should breastfeed often and have other foods three or more times a day. If the child has to be weaned quickly, for example if the mother is ill or for any other reason, the baby needs many small meals and extra milk. Use soft foods like porridge as a basic food. For **extra energy**, add oil, ghee, butter, coconut cream, whole milk, and flour made from groundnuts, soya, or other oil seeds. For **extra protein**, add beans, soya beans, lentils, groundnuts, eggs, fish, meat, or milk. For **extra vitamins**, add orange fruits like mangos, oranges, and papayas and vegetables like carrot and pumpkin. Dark green leaves and tomatoes are also good sources of vitamins. As the child becomes accustomed to eating foods, gradually make the food thicker. Give meat, eggs, fish, well-cooked brown rice, avocado, banana, etc. Mash the food or cut it into small pieces. Start with two or three spoonfuls per feeding. Unless the baby is ill, feed them until they do not want more.

**From nine months to two years**, children should be breastfed and have other foods four or more times a day. As they grow, they can have small amounts of safe water but not enough to take away their appetite for breast milk. Breast milk is still the best food for the baby. Give babies aged 9-11 months half of a 250-milliliter cup of food per feeding; children aged 12-23 months three-quarters to a whole 250-millilitre cup per feeding; and children two years and older at least one whole 250-milliliter cup per feeding. Foods from animals, such as meat, fish, and eggs, should be included as much as possible.

**From 12 months:** Most children are able to consume 'family foods' of a solid consistency. They can still be offered semi-solid foods, which are easier for young children to eat. Additional nutritious snacks, such as avocado, banana, and bread with nut paste, can be offered once or twice per day. When the child is no longer breastfeeding, give one to two cups of milk plus one or two extra meals each day. Most young children need to eat five times a day, they should have three meals and two snacks.

A young child's stomach is small, so he or she cannot eat much at one meal. A small amount of oil may be added to staple foods like rice, porridge, or maize meal. This adds nutrients and reduces the amount the child needs to eat to get the nutrition they need.

If meals are served in a common dish, younger children may not get enough food. Give a young child his or her own plate or bowl so the person feeding the child knows what foods the child has eaten and how much the child has eaten. Young children may need to be encouraged to eat, and they may need help in handling food or utensils. A child with a developmental delay or disability may need extra help eating and drinking.

Special consideration should be taken when a mother is living with HIV. There are many recommendations about how to balance the health of the mother as well as the health of the baby. Mothers living with HIV should consult a health worker to make a plan that best suits her and her baby's needs. The teacher might consider inviting a health worker to the class to discuss how HIV affects the recommendations on feeding young children.

## Food for Young Children Lesson Plan

### Lesson aim

Children will be able to help feed an infant between six-months and two-years old. They will also know the correct type and the correct amount of food that young children need.

### Lesson objectives

By the end of the lesson, children must be able to:

- Know the benefits of breastfeeding,
- Know the potential risks of bottle feeding,
- Support mothers at home who are breastfeeding younger siblings,
- Name appropriate foods that complement breastfeeding for children between six-months and two-years old,
- Know how to prepare meals for young children, including understanding portion size and often young children need to be fed.

### Lesson preparation

Make sure you teach the lesson on nutrition and balanced diet prior to teaching this lesson. Before teaching this lesson, the teacher must gain an understanding of how young children are commonly fed in the families and the community including breastfeeding and weaning practices. The teacher can do a survey in his or her class to find out which children help feed their younger siblings and how they do this. Some of this lesson depends on the children thinking about time and the age of children. It would be useful to do some preliminary work on time so that children understand clearly what six months, nine months, and one year are. Use seasons and seasonal events, terms, and draw a time line to help the children understand.

### Lesson materials

No materials are required for this lesson.

## How to conduct a 60-minute lesson on food for young children for 8-10-year-olds

1. **Question box:** Remind the children that they can put any questions they like about food for young children into the Question Box.

2. **Quiz (5 minutes):** Conduct this 10-question quiz before and after the lesson. Read out each question. Ask for a show of hands and note down the answers (5 minutes).

Food for Young Children Quiz (hands up if 'yes' is the answer)	
1. Should children under two years old eat from their own plate? (YES, children should be exclusively breast fed until they are six-months old. When adding complementary foods, starting at six-months old, the child should have his or her own plate.)	6. Should children under two eat more than one type of food each day? (Children under six-months old should be fed only breast milk. After six months, a variety of complementary foods should be given – the more variety, the better.)
2. Is breast milk the best food for babies under six-months old? (YES)	7. How many of you have more than five types of food each day?
3. Who knows why bottle feeding can be dangerous? (If the water used for mixing formula is unsafe, the baby will get sick. If the bottle is not washed well, the baby can also get sick.)	8. Who knows why small amounts of oil or fat should be added to young children's food? (Oil and fat provide important nutrients, as well as helping the child to get enough nutrition while eating small portions.)
4. Do you know why a mother who is breastfeeding has to take special care of herself? (The quality of breast milk is affected by the nutrition of the mother as well as how much water she drinks and how much sleep she gets.)	9. Is it important that eating plates are clean? (YES. Eating places should be kept clean and free from flies to prevent disease.)
5. How many meals a child aged two should have each day? (A two-year-old should eat five times a day.)	10. How many of you know how much a one-year old baby needs to eat each day? (A one-year old baby needs 250 milliliters or 250 grams, of food at each feeding. 250 milliliters and 250 grams are amounts of food roughly the size of an adult's fist or of a baseball – it's best to use local examples.)

3. **Activity one: Question and Answer (15 minutes):** Ask the children basic questions and then give them the answer. The answers can be found in the background information.

- **Question:** What is the best food for babies? **Answer:** Breast milk is the best food for babies under six-months old, and should be given to babies in combination with other complementary foods until the baby is two-years old.
- **Question:** Why is breast milk the best food for babies? **Answer:** Breast milk has everything in it the baby needs to grow, plus it is safe and clean.

- *Question: Why do mothers need to take special care of themselves when they are breastfeeding?* Answer: Mothers are making the food for the baby! They need to rest and eat good food to help their bodies make enough good breast milk.
- *Question: How can children help mothers who are breastfeeding?* Answer: Children can do extra work in the house and encourage their mothers to eat well and rest.
- *Question: Which “first foods” are good for babies and young children?* Answer: A variety of Go, Grow, and Glow foods (see a list of foods in these categories in the lesson on Balanced Diet) in small amounts that can be mashed and given with cereal. For example, banana and oil-rich avocado.
- *Question: How much do babies and young children need to eat?* Answer: Two to three spoonfuls at six-months, half a cup at nine-months, and a whole cup at two-years. Children under two-years old need to eat four to six times a day.
- *Question: Can I feed babies and young children sweets, sodas, and white bread?* Answer: No. These have very little health benefits and take away baby’s appetite for good food.

**4. Activity two: Acting Out (35 minutes):** Put children into pairs. Give children a scenario where they have to show and dialogue between two characters: one who is not feeding the child well and one who has just learned how to feed a child well from the health workers. The scenario shows the trained parent talking with another parent as they prepare and give food to a young child. Give pairs the task of feeding a child who is nine months, 12 months, or two-years old. Here are instructions to give the pairs.

- **Nine months:** The child is breast feeding so the mother is resting and eating well. The child is given small amounts of weaning foods four to six times a day, using a clean spoon and their own clean cup or bowl. The child is given a little clean water or fresh fruit juice with the food.
- **12 months:** The child is breastfeeding so the mother is resting well and eating well. She talks about adding a little oil or fat to the cereal and adding a variety of Glow, Go and Grow foods to the child’s diet. She talks about giving the child half a cup of food four to six times a day, using a clean spoon and the child’s own clean bowl. She talks about the dangers of giving junk food.
- **Two years:** The child may be breastfeeding a little but mostly eats the same food as the rest of the family. The mother takes care to reduce the bulk by adding a little oil and making sure that although the meals are small, they are balanced and varied. The young child feeds using a clean spoon and their own clean bowl, three times a day with two snacks.

It will take five minutes to set up this game. Give the children 15 minutes to practice. Pick three pairs – one from each age group. In the next 20 minutes have each of those three pairs perform their scenario. The whole class watches their scenario. Ask the children to spot mistakes and comment on what was right too. If possible, ask a health worker to come to watch and comment on the lesson. Ask the children to practice the scenarios in their spare time to show in a school assembly or community event.

**5. Concluding activity (5 minutes)** Conduct the quiz again recording the numbers.

#### **Optional Extra Activity (10 minutes):**

Go through the following activity that children can complete at school or at home: Ask children to find out:

- *What is the first weaning food given to babies in their homes/community?*
- *What other foods are given to babies aged six to twelve months?*

## Homework activity

Ask children to watch young children being fed at home and to write answers to the following questions in their notebooks:

- *What foods do young children eat?*
- *How often do young children eat?*
- *At what age does a young child start to feed themselves?*
- *Do young children wash their hands with soap before feeding?*
- *Do young children, aged one to two years, have their own feeding bowls?*

Ask the children to share the ideas in this lesson at home and to act out the food for young children scenario practiced in the class.

## Ideas to develop the lesson on food for young children

### Baby Club

Link an actual baby (and the mother) to a class (or a school) so that the children can monitor the growth, nutrition, and health of the baby as it grows. The mother visits the class or school each month with a health worker. The children weigh the baby and the mother tells the children what the baby is doing and what it is eating and drinking. A health worker and the teacher can talk to the mother in front of the children about the different developmental milestones for the baby. Each child (or class) can keep a baby diary and a poster on display. If the children have a baby sibling or relative in the community, they can keep another baby diary for this baby.

Draw a time chart showing one year. Mark different events on the chart like terms, birthdays, and seasonal events (like religious festivals). Connect these with a baby's growth and what they are doing. Here is an example with some details filled in.

#	2012 Month	Community/ School events	Family events	What baby is doing	Baby's growth
1	January	School term 7th January			
2	February			Baby born 2/01/2012	Baby weighs 3.4 kg
3	March				
4	April	School terms ends 13th			5.48
5	May	School term begins 2nd May	Mom's birthday 12 May	Baby rolled over	
6	June				6.56
7	July	School terms ends 22nd holiday/rainy season		Baby can stand, assisted in my lap	
8	August				8.4
9	September	School terms begins 6th September Rainy season	Dad's birthday 19 September		
10	October	Rainy season		Baby can push himself to seated	6.56
11	November				
12	December	School terms ends 18th Dec		Baby can crawl	8.4



## Food for Young Children as a topic in other subjects

<b>Mathematics</b>	Children can carry out a survey of households with babies less than one-year old and find out how they are being fed. Using a simple question sheet, record the name of the baby, the age of the baby in months, and tick only one of three boxes about what the baby eats. The boxes should be labeled: just breast milk, breast milk and other food, and no breast milk only other food. The answers are collected and made into three charts showing the number of babies on the y-axis and the age in months on the x-axis.
<b>Science</b>	<p>Prepare 1000mls of mixed food like rice and dhal. Bring this to the class with a can or measuring cup that can contain 200mls. Show the picture of the baby's stomach (200mls) and ask how many times in a day a baby needs to be fed to get 1000 mls into his stomach.</p> <p>Another experiment is to bring in a small measure of oil and four – times as much raw cereal flour. Demonstrate to the children how a small amount of oil has the same nutrition as four-times the amount of cereal so to reduce bulk and increase nutrition we can add a small amount of oil or fat to food.</p>
<b>Social Studies</b>	Children can make a recipe book of good mixed meals and snacks for young children. They can find out when the snacks are available and where relevant how much the snacks cost.
<b>Language</b>	Children can play the ' <i>BUT WHY</i> ' game using the posters made in art or just by thinking about an imaginary child aged two or under who is not getting enough to eat. Let's call him Pedro. In large or small group(s), children start the discussion by asking, " <i>BUT WHY is Pedro thin?</i> " One answer might be that he does not get enough to eat. They then ask, " <i>BUT WHY is he not getting enough to eat?</i> " One answer is that his family is poor. " <i>BUT WHY is his family poor,</i> " etc. This language games helps explore root causes of problems. After the game, children can write a paragraph about the reasons why Pedro is thin in their notebooks.
<b>Music</b>	Make up and sing songs about foods for babies.
<b>Art</b>	Children can draw a poster showing a thin child less than two-years old next to a healthy child about the same age. Under the poster they can write the question: <i>But why is Pedro so thin?</i> This can be used for the <i>But Why</i> game described above.





A classroom lesson on menstruation at the Ginchi Primary School. Ginchi Student, 14-year-old Kalikidan Geleta points out different facts about the uterus.

*Susan Warner*

# Section 6:

## Sexual and Reproductive Health

### Background

Research shows that many children of primary-school age have wide-ranging and fairly sophisticated knowledge of adults' sexual practices and sexual worlds, e.g. the influence of drugs and alcohol, rape, and prostitution. They observe sexual acts regularly. They are aware of the dangers of HIV and AIDS and keen to avoid them. Children also want to have more information and dialogue with adults about sexual matters and HIV and AIDS, although they know that adults avoid talking to young people honestly and openly about sexual matters and HIV and AIDS. Children want a more interactive style of learning, connecting what they know and don't know. They want relevant and realistic information that is linked to their own lives.<sup>1</sup>

Here is a cluster of four simple lessons on sexual and reproductive health (SRH) that requires the teacher to interact with children openly and honestly. The lessons include:

1. *Changing bodies*
2. *Changing feelings*
3. *What is it to be a boy? What is it to be a girl?*
4. *HIV and AIDS*

It is recommended that all four of these lessons be taught in one block to children from 8-10 years old. The lessons are desired to be the foundation for developing children's understanding of the subject and developing their ability to discuss sensitive topics. The teacher needs to adapt the lessons carefully and feel confident to deliver the lesson. Teachers should get support from others if they do not feel confident.

The four lessons focus on the basics of how children's bodies and emotions change at puberty, help children gain confidence in a vocabulary to discuss issues around sexual and reproductive health, and start to develop children's awareness around gender issues and to address some of the anxieties they may have about HIV and AIDS. The lessons aim to help them gain a positive self-image. Puberty usually begins between the ages of 8 and 12. Children in this phase are preadolescent and they become more self-conscious about their bodies.

Some parents may feel uncomfortable talking about SRH issues, especially to children as young as 8-10, because of their cultural values, norms, and traditions. It can be useful to hold a meeting with parents to discuss the forthcoming SRH lessons and some of its sensitive content. In this way, parents can participate in their children's sexuality education from the beginning. Studies show that children and youth who feel they can talk with their parents about sex are less likely to engage in high-risk behavior than those who do not.

However (and as studies show), it is at this age that children are becoming more aware of SRH issues. It is also a time when children are vulnerable. Children need to know that their bodies are their own and that no one can touch them in ways they do not like or do anything that frightens them. By informing all children and enabling them to discuss sensitive topics, we are empowering them, protecting them, and reducing the likelihood of abuse at a young age. Parents play a vital role in helping to grow children's self esteem and protecting them by praising and appreciating them and by giving them age-appropriate challenges.

<sup>3</sup> Ask Aids. [www.educ.cam.ac.uk/centres/cce/initiatives/projects/ask aids/](http://www.educ.cam.ac.uk/centres/cce/initiatives/projects/ask aids/)

## Lesson 20: Our Changing Bodies

### Lesson Plan on Our Changing Bodies

#### Lesson aim

Girls and boys feel able to talk about puberty and how their bodies change.

#### Lesson objectives

By the end of the lesson, children must be able to:

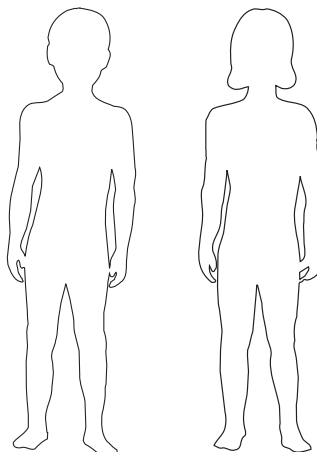
- State three guiding rules when talking about puberty and sexual health,
- Talk about specific physical changes experienced by both boys and girls during puberty,
- Discuss important principles that will help girls and boys as they go through puberty.

#### Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of the traditions and attitudes of parents and the community when talking to children about puberty. Who in the family is the one to talk to girls? To boys? What words are used? When are these discussions held?

#### Lesson materials

Two body outlines with a name above each outline – one girl's name and one boy's name. To avoid embarrassment, the teacher should not use names of children in the class. The outlines do not have to be distinguishable as a boy or a girl but the teacher may choose to add distinguishing characteristics.



### How to conduct a 60-minute lesson on Our Changing Bodies for 8-10 year olds

1. **Question box:** The teacher may make a question box in which children can place anonymous questions during or after the lesson. The teacher will answer the questions during the lesson or in a follow up session.

#### 2. Activity one: Guiding rules

- Break the class into groups of about five children each. Ask the children to discuss the questions below and then write their responses:
  - *How would we like learners and the teacher to behave in our lessons about sexuality?*
  - *What would we like to NOT happen?*
  - *What would make us feel safe and free to talk and take part?*

- Ask the children to present ideas for the guiding rules, one idea per group, until all the ideas are finished. Talk about each guiding rule until everyone has properly understood it and agreed it. Here are some examples:

#### Guiding rules

Everyone can take part.  
Listen to the quiet ones.  
We should respect each other.  
Do not fear the teacher.  
Encourage one another.  
Use simple words we all understand.  
It is OK to pass if asked a question.

### 3. Activity two

- At the beginning of this activity, remind children of the guiding rules, especially if they get excited and begin to use negative words. Help learners use positive words or biological names for parts of the body instead of slang.
- Ask each child to draw a picture of a 16 year old child with the same sex as him or herself. Give the children about ten minutes for this task.
- Ask children to think about the differences in physical appearance they see between themselves and older children they know (such as older siblings or children at school or in the community).
- Make these key points to the whole group:
  - Puberty is a time when the bodies of boys and girls change – bodies grow bigger and taller, genitals develop, and body hair appears.
  - Puberty happens because new chemicals, hormones, are developing in the body, turning young people into adults.
  - Usually, puberty starts between ages 8-13 in girls and between ages 10-15 in boys.
  - Puberty is also a time when feelings change (and this will be the topic in the next lesson).
- Using the two large body outlines prepared before the lesson, the teacher asks for ideas from the group about what changes girls and boys go through during puberty. The writes down the children's answers on the outlines. The teacher talks about the changes that they have noticed. Here are some ideas:

Girl	Boy
<ul style="list-style-type: none"> <li>Grow taller.</li> <li>Hips get wider.</li> <li>Hair grows on the vagina and in the armpits.</li> <li>Breasts grow and become more sensitive.</li> <li>Voice changes.</li> <li>Face becomes oilier, which can cause pimples.</li> <li>Start to sweat more, which can make you smell bad (If you do not wash yourself!)</li> </ul>	<ul style="list-style-type: none"> <li>Grow taller.</li> <li>Shoulders get broader.</li> <li>Hair grows on the chest, armpits, and around the penis.</li> <li>Signs of a mustache and beard.</li> <li>Voice deepens.</li> <li>Chest becomes wider.</li> <li>Start to sweat more, which can make you smell bad (If you do not wash yourself!)</li> <li>Face becomes oilier, which can cause pimples.</li> </ul>
Other changes they might mention but which they might not notice include: <ul style="list-style-type: none"> <li>For girls, menstruation begins.</li> <li>Boys can experience ejaculations at night. These are sometimes called night-fall or wet dreams</li> </ul>	

- In same-sex pairs, the teacher asks children to practice answering these two questions:
  - *What are the changes we may see in our bodies at puberty?*
  - *What are the changes we might see in a person of the opposite sex?*

#### 4. Activity three: Remembering virtues that help to support each other

- Tell the children that boys and girls can help each other to grow up safely and happily. This skill will help us go on to care for each other as men and women for the rest of our lives. For example the principles of cooperation, kindness, and consideration can help us support one another.
  - **Cooperation** is working together for the good of everyone.
  - **Kindness** is showing that we care and doing something to make it better for someone else.
  - **Consideration** is thinking about someone else and their feelings.
- Ask children to get into pairs and think about an example of cooperation, kindness, or consideration. Ask them to make sentences with one of these words in them or to draw a picture or a short cartoon strip.
- The teacher selects up to three pairs to say their sentences or to describe what they have drawn and how their sentences or drawing show one of the important principles.

#### Concluding activity

Ask all of the children to write anonymous questions about how bodies change as they grow on separate pieces of paper and put them into the question box. The teacher can then know what the children are wondering and answer those questions and/or invite a health worker in to answer the questions.



## Lesson 21: Our Changing Feelings

### Lesson Plan on Our Changing Feelings

#### Lesson aim

Girls and boys feel able to talk about puberty and how their feelings change during puberty.

#### Lesson objectives

By the end of the lesson, children must be able to:

- Talk about specific emotional changes experienced by both boys and girls during puberty,
- Understand what self-esteem is and how it can help with changing emotions in puberty.

#### Lesson preparation

As in the previous sexual and reproductive health lesson, before teaching this lesson the teacher must gain an understanding of the traditions and attitudes of parents and the community when talking to children about the emotional changes in puberty. Are there any specific local words to describe the emotional changes? Are emotional changes discussed with children in the family? If so, when are they discussed and who does this? It is useful if parents or caretakers are informed about the lessons before they are taught and better still if they have a chance to discuss the content with the teacher.

It can also be useful to discuss the following questions with a group of adolescents: *What type of changes in feelings or sentiments do girls and boys experience during puberty? How are sentiments and feelings different or similar for boys and girls? What would have been useful to know about puberty when you were younger?* Older children can come to the class to act as mentors to the children and answer their questions. If you wish to do this then prepare the young mentors well.

#### Lesson materials

Draw an outline of a face on the chalkboard or on a large piece of paper.

### How to conduct a 60-minute lesson on Our Changing Feelings for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they have about the lesson on *Our Changing Feelings* into the Question Box.

#### 2. Activity two:

- At the beginning of this activity, remind children of the guiding rules.
- In groups of three or four, ask children to draw an outline of a face in their notebooks (it can be either a boy or a girl).
- Ask children to discuss the changes that they have noticed in the emotions and moods of children who are older than them. each. Ask them to think about the following:
  - *Changes in their relationship with their parents.*
  - *Changes in friendships and feelings of love.*
  - *Changes in what adults expect them to be able to do.*

Ask them to draw or write their ideas around the face.

- Collect ideas from the whole group. Write each idea as a separate sentence near to the face on the board. Here are some ideas:

#### Girls and boys – Changing feelings

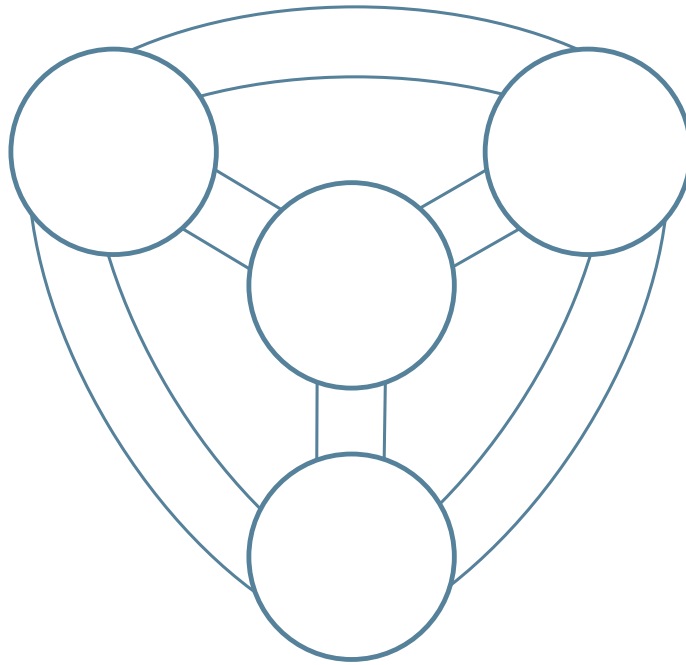
- More concern or worry about appearance and body.
- Relationships with friends become more important.
- Worry about the future (school, family, job, etc.).
- New “crushes” on movie stars, pop artists, teachers, peers, or fellow participants.
- Curiosity about sexual organs.
- Wanting others to understand your feelings.
- The desire to form close groups of friends.
- The desire to be successful in school and feel competitive with friends.
- Feel like you may want a ‘special friend’ (girlfriend or boyfriend?).
- Asking questions about yourself.
- Moodiness, anger, and depression.
- Not being as friendly or loving to family members.

- The teacher can then make these key points to the whole group: puberty is a time when boys and girls develop new feelings and emotions change; all of these new emotions are normal; feeling anxious about growing up is normal.
- In same – sex pairs ask the children to practice answering this question: *What are the changes we may feel in our emotions at puberty?*

### 3. Activity three: Self-esteem and growing up

- Tell children that self-esteem is about loving and respecting our bodies and ourselves. We expect others to treat us well and we are strong enough to say what we feel and think clearly. We all have things that people like about us: our smiles, our skills in writing, in singing, our ability to organize things, etc.
- Ask the children to form pairs or groups of threes and to say three things they like about each other. Think about behavior and things they do well.
- Ask the children to tell the others in their groups three things they like about themselves.
- Ask the children, “What is a shield?” Explain that a shields are used to protect people from injury. They’re most often used in battle to keep warriors from getting hurt. Explain that self-esteem is like a shield. Knowing what we are good at and what makes us special can help protect our feelings from being hurt.

- Ask each of the children to draw a shield in their notebooks, such as the one below, and to fill it in using their own ideas of what qualities will help protect their feelings from getting hurt.



### Concluding activity

- In a circle ask the children to speak about what they have learned from this lesson about changing feelings in puberty. After each point, ask the children who are listening to put up their hands if they have also learned this too.

### Homework activity

- Find a friend. Talk about the things teachers or parents do that make you feel good about yourself. Write a poem or song about this.
- Write a poem or story to describe a real experience of feeling anxious or moody and what helped you feel better.

## Lesson 22: Being a Girl, Being a Boy

### Lesson Plan on Being a Girl, Being a Boy

#### Lesson aim

Children feel able to talk about how being a boy or girl can affect the choices they make.

#### Lesson objectives

By the end of the lesson, children will be able to:

- Identify their hopes and dreams,
- Understand that boys and girls can have the same hopes and dreams,
- Understand what gender is, and understand the difference between gender and sex,
- Develop an awareness of the gender roles of boys and girls, men and women.

#### Lesson preparation

Gender issues vary from place to place, so adapt the activities to fit with the real life situation facing the children in the group that you teach. For activity two, choose a gender-neutral local name (a name used for both boys and girls), e.g. Tendai. For children who find it hard to read, adapt activity three. The quiz questions emphasize the importance for girls and boys to be regarded as equals. Adapt as needed.

#### Lesson materials

- Statements and questions on Tendai for the group.
- Quiz questions for groups or pairs of children.

### How to conduct a 60-minute lesson on Being a Girl, Being a Boy for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they have about the lesson *Being a Boy, Being a Girl* into the Question Box.
2. **Activity one: Hopes and dreams**
  - Remind the children about the guiding rules.
  - The teacher tells the children that everyone has HOPES and DREAMS for their life. He or she asks the children, “What are your HOPES and DREAMS? What do you want to achieve in life?”
  - The teacher asks the children to draw a picture in their notebooks that represents their HOPES and DREAMS. The children can use words to help, if they need to, in order to express their points.
3. **Activity two: Being a girl and being a boy**
  - The teacher may divide children into same-sex groups or may choose to do this exercise with mixed-sex groups. Give each group the prepared statements about Tendai\*. Groups will either receive statements about Tendai as a boy or statements about Tendai as a girl. Do not tell children that there are two different “Tendais.”

\* Remember to choose a gender-neutral name that is appropriate to your location.

- Ask the children to think of Tendai as a child from their community.

Tendai is 10 years old. **He** lives with his parents.

1. Which sports do you think Tendai likes playing?
2. What do you think he does when he comes home from school?
3. What job do you think he wants to do when he grows up?

Tendai is 10 years old. **She** lives with her parents.

1. Which sports do you think Tendai likes playing?
2. What do you think she does when she comes home from school?
3. What job do you think she wants to do when she grows up?

- Bring the groups back together and have them report their answer to each question. Discuss what the differences were when children thought Tendai was a boy or a girl.
- The teacher should tell the children the following:
  - All cultures have traditional roles assigned to women and men.
  - These are based on what is expected and not on the natural abilities of women and men.
  - For girls and boys to grow into healthy women and men, we must look at these roles and change some of them so that we can work together to improve our lives and the lives of our communities.
  - There is no reason why boys and girls cannot do the same things and achieve all of their hopes and dreams.

### Activity three: Quiz on the roles of boys and girls

- The teacher gives the following examples to the children:
  - Goma<sup>1</sup> is the head teacher of the school.<sup>2</sup> Is she still respected as a woman?
  - Sushila and Bhima are at the top of their class. Are they respectable girls?
  - Menaka is a police officer. Is she still respected?
  - Abraham is a nurse at the health clinic. Is he still respected as a man?
  - Pedro dreams of taking care of his children and enjoys playing with dolls. Is he still respected as a boy?
  - Job likes to help his mom cook and wants to work in a restaurant when he grows up. Is he still respected as a boy?
- The teacher explains that in this activity we are going to think about the children's ideas about being a girl and being a boy. In pairs, the children read the statements and tick the statement they like the best. Then, they answer the question.

1. Girls have hopes and dreams just like boys...

- and girls can achieve these hopes and dreams just as easily as boys!
- but girls have a harder time than boys achieving their hopes and dreams.

Is it easier for girls or boys to achieve their hopes and dreams? Why?

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<sup>1</sup> Choose names that are appropriate for your context.

<sup>2</sup> In a place where the head teacher position is usually held by a man.

2. When compared to boys, more girls drop out of school because...
- their education is not given as much importance as that of boys.
  - they are not expected to go for higher education.
  - they are not naturally as smart as boys.
  - there are too many other chores and responsibilities for girls.

Are boys born smarter than girls? Are there girls in your school who are very smart? What role do boys have in helping girls achieve success in schools?

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3. Girls should not play football because...
- they need to spend their free time cleaning and doing chores.
  - it is not biologically possible for them to play football.
  - it's not a girls' game.

Are girls not able to play sports? Is it fair for boys to have free time to play but not girls? What can families do to make life more fair and equal for boys and girls at home?

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4. Boys cannot look after children because...
- biologically men are not caregivers.
  - they should not look after children.
  - it is not considered a man's responsibility.

Have you ever seen a man caring for his children? Why does society think men cannot be caregivers?

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- Ask pairs to get together and share their ideas
- In the whole group go through the four questions, getting ideas from the children.

### Concluding activity

- In a circle, ask each child in the group to share what they have learned about being a boy and being a girl.
- Write down the key points.
- Ask the children to vote for the most important learning points from the lesson and record the numbers of votes beside each point. For example:
  - Boys and girls are different but not unequal.
  - All people have the choice to act in ways that help both boys and girls achieve their hopes and dreams.
  - It is not fair to treat boys and girls unequally.

### Homework activity

Children can ask family members about the female leaders they know about. They could be politicians, community leaders, singers, or other kinds of celebrities. Children can discuss with their family what they think helped these women become leaders.

Ask the children to share their hopes and dreams ideas with their friends, siblings and parents. Tell the children that their friends, siblings, and parents can help them to make their hopes and dreams come true.

# Lesson 23: Understanding HIV and AIDS

## Lesson Plan on Understanding HIV and AIDS

### Lesson aim

Children feel able to talk about HIV and AIDS, know how and why people living with HIV can live in a positive way with love and support from friends and community members.

### Lesson objectives

By the end of the lesson, children will be able to:

- Name three ways that HIV is spread and three ways that it is not spread.
- Name three ways to avoid HIV infection.
- Explain how to live positively if you have HIV.

### Lesson preparation

Before teaching this lesson, the teacher must gain an understanding of ways in which HIV and AIDS is affecting the community, the school, and (if possible) the children in the class. Children and their family members in your school might have HIV and either not know or not wish to share our status with others. Talk about “those of us living with HIV” rather than talking as if we are all free of HIV. Acknowledge that those of us with HIV make good leaders in working to cope with it and preventing others from getting infected.

If conducting Activity 3 (and if relevant), warn other teachers in the neighboring classes that they may hear the sound of slamming doors during this session.

### Lesson materials

Hat or scarf if conducting Activity 3.

## How to conduct a 60-minute lesson on Understanding HIV and AIDS for 8-10 year olds

1. **Question box:** Remind the children that they can put any questions they have about HIV and AIDS into the Question Box.

### 2. Activity 1: Question and Answer on HIV and AIDS<sup>1</sup>

- First ask the children what they have heard about HIV. This activity can be used to get some starting points and to uncover any myths. Then using a Q&A method, ask the children basic questions and then give them the answer.
  - *Question: What is HIV and AIDS?* Answer: HIV stands for Human Immunodeficiency Virus. It is the virus that leads to AIDS. AIDS stands for Acquired Immune Deficiency Syndrome. AIDS is a serious illness that can lead to death.
  - *Question: How is HIV passed from one person to another?* Answer: HIV is passed in three ways:
    - Unprotected sexual contact
    - Direct blood contact, including injection drug needles, blood transfusions, accidents in health care settings, or certain blood products
    - Mother to baby (before or during birth, or through breast milk)

<sup>1</sup> Activity 1 and 2 are adapted from material in the AIDS Alliance publication – Our Future grades 4/5 pages 11 - 115

- *Question: How can people prevent themselves from getting HIV? Answer: By practicing safer sex, which means using a condom during intercourse, abstaining from sex, or having sex in a monogamous relationship in which both partners are only have sex with each other.*
- *Question: How is HIV NOT spread? Answer: Hugging, kissing, sneezing or coughing, sharing cups, shaking hands, mosquito bites, toilet seats, from telephones.*
- *Question: What do people with HIV or AIDS need the most? Answer: Special medicines called ARVs that can help people with HIV stay healthy for a long time, love and support from their families, friends, and neighbors, a good diet, the ability to carry on with work and a social life, the ability to get treatment for all illnesses as early as possible.*

### 3. Activity 2: The story of Milika

- The teacher tells the story of Milika.

**Milika is a 10-year-old girl.** She was born with HIV. She gets sick more often than her classmates and sometimes she is not able to play sports. A pupil found out that she is living with HIV and told everyone. Now pupils tease her and laugh at her and no one wants to sit and eat with her. They say bad things about her mother. During sports, no one wants her on their team and she always sits alone.

- Ask the children to form small groups to discuss this story. Imagine you are Milika:
  - *How would you feel?*
  - *How would you behave?*
  - *What would help you to cope if you were Milika?*
- In the whole group ask children for their ideas.
- Ask the children to imagine that Milika is in our class and discuss:
  - *Why are we teasing her?*
  - *What would we do if Miliaka was our friend?*
  - *What principles could we use to make life better for Milika (see lesson 1 activity 3 on principles).*
- Ask children to summarize the ideas in their notebooks (if appropriate). Allow them to help each other do this.

### 4. Activity 3: Creative thinking about the lives of people with HIV: Closed door or opened door<sup>2</sup>

- The teacher stands by the classroom door and tells the children:
 

*When bad things happen and people have big problems to solve, people can feel angry and sad and that life has nothing for them now. Instead of having lots of chances to do things in the world outside (point through the door) they feel the door has shut on their lives (slam the door shut). (If the classroom does not have a door, ask children to imagine the door and mime opening it and closing it as appropriate.)*
- The teacher puts on a hat/scarf to represent becoming another person and says:
 

*My name is Mrs. Obeng, I have just been told that I am HIV positive. Now I have many problems. Each problem feels like a door closing in my life. Help me to find ways to open the door.*
- Using the list below for ideas, “Mrs. Obeng” says... *I am HIV positive so...and complete the sentence with a statement such as the ones from the “closed door” list below. As she says the statement, she slams the door shut. In pairs the children try to think of ideas that open the door for her again.*
- The teacher then selects a child who comes up to the door and says the “open door” idea. If the class agrees the child can then open the door! This is repeated.

<sup>1</sup> Adapted from material in *Children for Health* page 132



Closed door	Open door
I may lose my job	But you can try to keep this job or find another job
I will lose my health	But you can make your body strong now
I will get sad	But you can learn to share your problems and get support from your loved ones
I will lose my friends	But your best friends will stay by you and you can make new ones
I will die soon	But no one knows when he or she will die. You can live well during the life you have left
My children will suffer	But you can make things as good as possible for your children and explain everything to them so they are prepared.
Add others...	

- After this activity have a discussion using these questions:
  - Was it easy or difficult to think of the "open door" ideas?
  - Do you think the open door ideas help Mrs. Obeng?
  - How can creative thinking help people cope with their problems?
  - How can children help people who are living with HIV?
  - How can children help children in families whose relatives are living with HIV or AIDS?

### Concluding activity

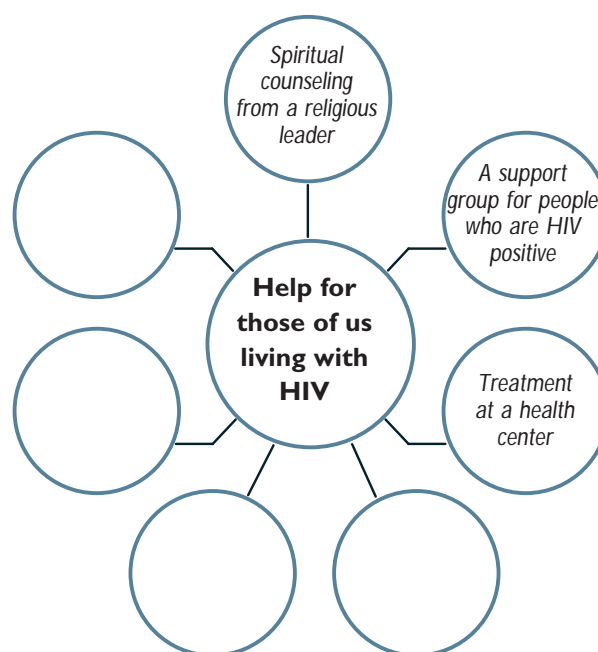
- In pairs children take turns to tell each other how people can live positively with HIV and AIDS.
- In the whole group, the teacher collects ideas on how people can live positively with HIV and AIDS.
- Ask children what they can do to pass on the messages about HIV and AIDS.

### Homework activity

Children can ask their parents or others in their family what help is available to people in the community who have HIV. Using the answers, children can make a spider diagram as in the example opposite.

The center of the diagram is 'help for those of us living with HIV'. Three of the bubbles say:

- Spiritual counseling from a religious leader
- A support group for people who are HIV positive
- Treatment at a health center



## **Ideas to develop this lesson on HIV and AIDS**

If HIV and AIDS is a big problem in the community, think about setting up an action club with the children. Here are the types of activities children can do in a club.

- *Create short plays, for example, about caring at home for a person with AIDS. Children can act the plays for their friends or families, or they may make simple puppets for their characters and perform the puppet plays for the school or community.*
- *Work with stories, for example, about an imaginary school pupil thought to have HIV. Divide into groups representing the pupil, other pupils, teachers and parents. Each group thinks about, "What do I feel?"; "What are the main effects on me?"; and "What do I want to happen?" The groups share their discussions.*
- *Using picture to start discussions, for example, of a person caring for someone who is sick. Ask children to imagine how they would feel in the role of one person in the picture. Ask questions about what events led to the scene shown and what might happen in the future.*
- *Collect pamphlets, posters, and other information material available in the community about HIV and AIDS and other STDs (sexually transmitted diseases). Ask children to look at the materials in groups and try to answer: Why is HIV dangerous? How is it spread? How can we avoid getting it? Help children to develop a list of sentences on what they feel to be true about HIV and AIDS. Review this list making sure the sentences are correct.*
- *Make posters with information about HIV and AIDS and display them at the school and clinic, and in the neighborhood.*
- *Ask children to write quiz questions about HIV and AIDS and ask children in other classes.*

## **Talking to people who are HIV positive**

Invite people in the community who are HIV positive and who are happy to speak to children about being HIV positive. Children can prepare questions for them. It is best if there are at least two visitors. Check the questions first. Tell both the visitors and the children that the visitors do not have to answer any questions they do not want to. Example question might be:

- *When did you get HIV?*
- *How did you know?*
- *How did you feel when you were first told?*
- *How do you feel about it now?*

## **Visiting the health clinic**

Children can visit the health clinic to ask the health workers questions about how people can live positively with HIV and about the medicines that can help people with HIV. Children might ask questions like:

- *How can you tell if someone has HIV?*
- *What advice do you give people who have HIV?*
- *How can children help people living with HIV?*
- *What medicines can help people with HIV? Are they available? Why/Why not?*



Snakes and ladders games designed to educate school children into the practice of good hygiene as part of Save the Children's WASH program established in Pakistan.

CJ Clarke





**Save the Children**