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URBAN ENVIRONMENT PROJECT PURSAT

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CHEVAILY INTERMINITY WATER SUPPLY AND SANITATION (IRC)

A HYGIENE EDUCATION CURRICULUM FOR THE PRIMARY SCHOOLS IN

PURSAT TOWN

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> November 1994 Pursat Cambodia

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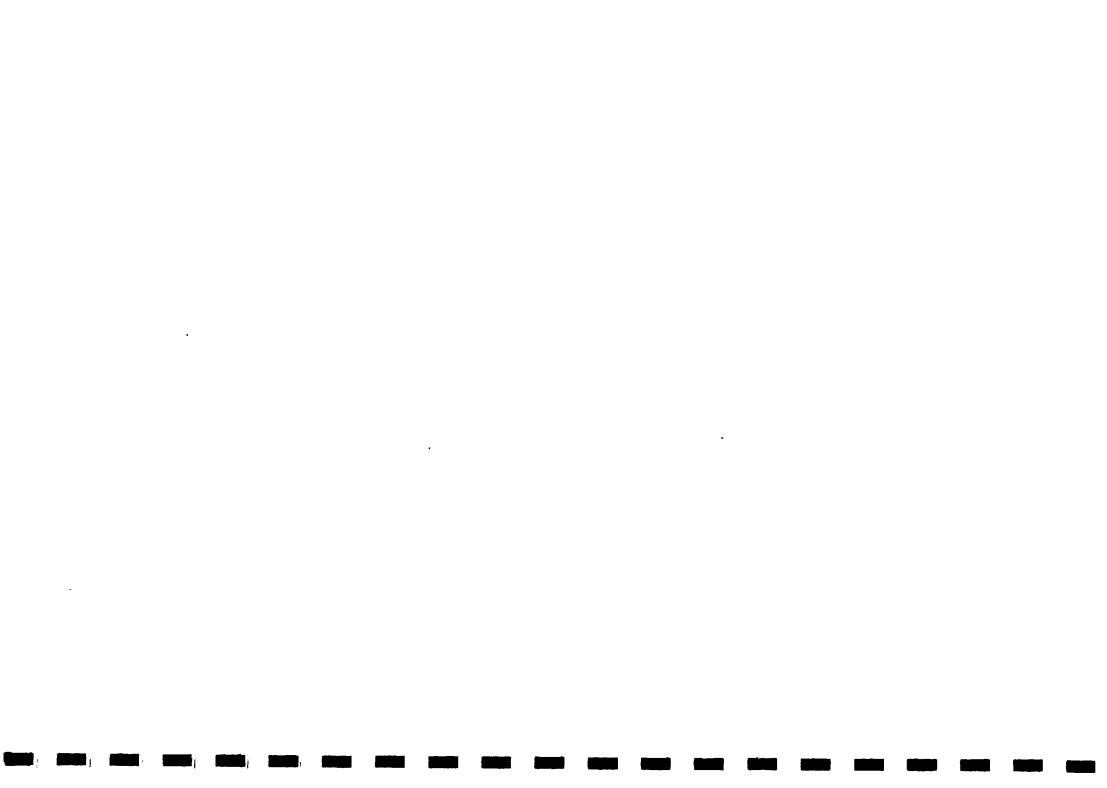
INTRODUCTION

This curriculum is part of SAWA\EC's school hygiene and sanitation programme, which has involved the placing of 2000-liter rainwater jars, garbage bins and the construction of double-pit pour\flush latrines on the compounds of Pursat town's pre and primary schools. As the pupils of pre and primary schools in Pursat town make up 33% of Pursat town's population, it makes them an important target group for health education and health promotion activities.

A training course was organised by SAWA on different occcasions between November 1993 and March 1994 to upgrade the knowledge of all pre and primary school teachers in Pursat town with regard to the relation between water, sanitation and health and to make them aware of the different teaching methods which can be used to transmit health and hygiene education messages to the students.

Following that training course the teachers made a request to SAWA for a structured hygiene education curriculum with visual aids, which is how this curriculum came into being produced. Prior to the introduction of this curriculum the teachers were given a training session on how to teach it and all the lessons were pre-tested in the primary schools in Pursat town.

The approach used in this curriculum is based to a certain extent on the "Child To Child" approach which is a popular approach used to teach health education in over 60 countries. This approach encourages children through working together to spread health ideas and improve health practices in their home and the community.



ACKNOWLEDGEMENTS

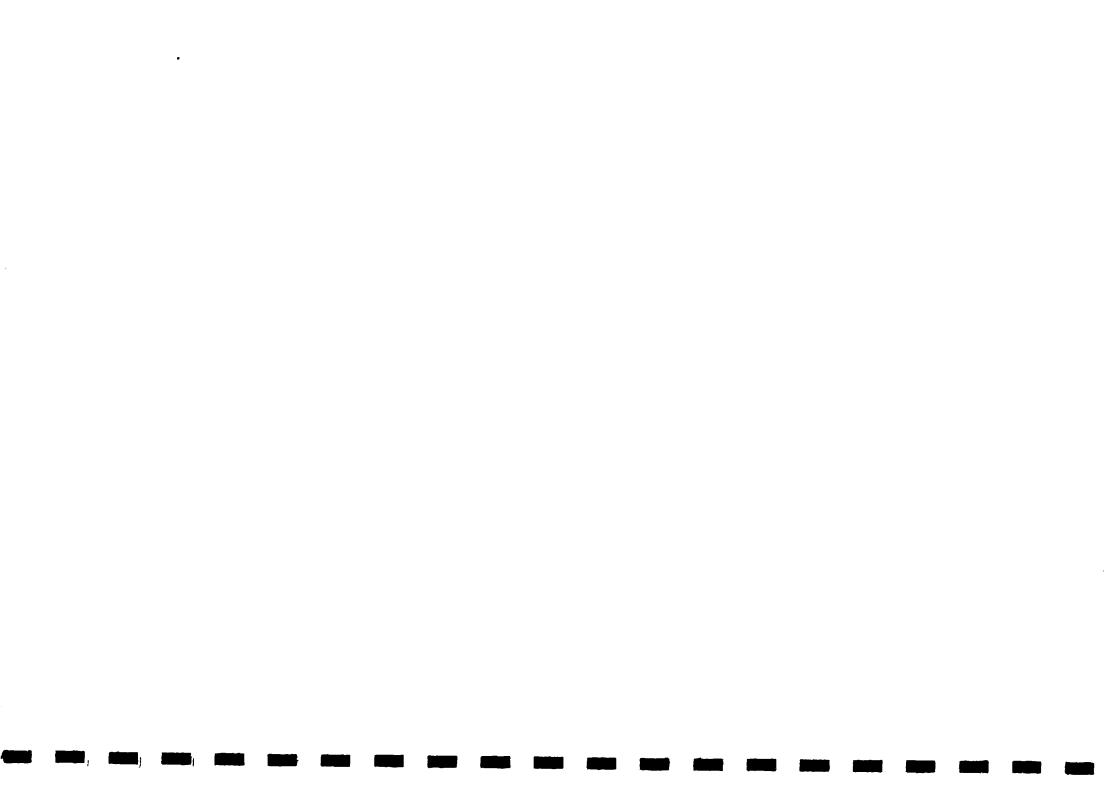
I would like to thank Im Mavuth (SAWA) for his assistance with the design of the pictures and posters which accompany this curriculum and for checking the khmer translation.

My thanks also go to An Thy (SAWA) and Dy Tith (SAWA) for translating the english version of this curriculum into khmer and for typing the khmer curriculum.

To Soun Ratana (SKIP), So kong (SKIP) and the students from the SKIP Vocational Training Centre Kandieng who produced the pictures and the posters which accompany this curriculum.

I would also like to thank Mr Ouch Phon (Education Department Pursat) for his co-operation and the Primary school teachers in Pursat town who assisted with the pre-testing of the lessons in this curriculum.

My thanks also go to Heng Bunna (CNHE) for his help with the pretesting of the lessons.



HOW TO USE THE CURRICULM

This curriculum has been written in such a way that it is "user friendly". It is accompanied by 27 large posters and 1 hygiene story flipchart. The flipchart consists of a series of pictures and it is up to the teacher to make up his or her own story to accompany the pictures. At the beginning of each lesson in the curriculum explanation is given about the the following:

- (1) Teaching methods to be used These are stated at the beginning of each lesson.
- (2) Teaching aids This refers to posters or other teaching aids that are required to teach the lesson. The posters in addition to a title, all have a number on the back of them. To make it easier for you to know which posters to use with the lesson a A4 copy of each poster to be used with the lesson can be found at the end of each lesson.
- (3) The learning objectives These are stated at the beginning of each lesson.

It is not necessary for the students to do very much writing. The important points which include the health education messages come under the section of the lesson "REMEMBER" and these are the only points that it is necessary for the students to write down.

At the end of each lesson the "STUDENT'S ACTION" is stated. This is what the teacher has to tell the students to do and this is how the children can help to spread health ideas, promote hygiene education messages and improve health practices in the community.

This curriculum has been written taking into consideration what the different class grades of primary school children in Pursat town are required by the Education department to learn about hygiene education. It is primarily aimed at grade 3 - grade 5 with the exception of lessons 2 and 8 which is aimed at grade 1 upwards. It is however possible to adapt all the lessons for use with the younger children.

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LESSON 1

HYGIENE EDUCATION : AN INTRODUCTION

Teaching methods: Discussion with the students and game.

Teaching aids: Poster to show how germs are spread (no 1). Knife,chilli,cloth;plate,bowl,water,soap,scrubbing brush.

Learning Objectives By the end of the lesson the students will know: (1) what germs are; (2) how germs are spread.

In the world today many people become sick and some die because of illnesses caused by germs which get into the people's bodies via food,water,animals,faeces. These illnesses can be prevented by good hygiene.

What are germs? A germ is a tiny living thing that can harm the body and cause illness. It is so tiny that you cannot see it with the naked eye. Some germs will harm the body and some do not.

Ask the students to look at their hands Can you see any germs on them?

You cannot see them because they are so tiny but there will be lots of them.

Now the students will play a game which will help them to understand a little better about germs.

The germ game

The teacher should choose a student to play this game and ask him or her to stand in front of the class. The student must follow the instructions or explain to the class why he or she wont.

Instructions and questions for the student:

-Put the chilli on the plate and using the knife cut it into small pieces.

Now wipe your hands on the cloth.
Can you see chilli on your hands?
Can you smell chilli on your hands?
Now rub your eyes.
(The student will probably refuse)
Why will you not rub your eyes?
(Because he or she knows that there is still chilli left on his or her hands although it cannot be seen and if he or she rubs his or her eyes the chilli will burn them).
Now dip your hands in the bucket of water.
Now rub your eyes.
(The student will probably refuse)

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- Why not? - Now take the soap,scrubbing brush and water and wash your hands. - Will you rub your eyes now? You will rub your eyes with your hands now because you are fairly sure that there is no chilli on them. How can you be sure there is no chilli on them?

- Because you have washed your hands very well

How are germs spread?

Ask the students if they have any ideas?

Show the students the poster of how germs are spread.

Germs are spread in the following ways: - In the air from person to person when a person breathes. Colds and flu are spread this way.

- By mosquitoes who carry malaria in their bodies and spread it when they bite someone.

- From faeces to mouth, many diseases are spread by hands contaminated by faeces touching the mouth. You will be learning more about how diseases are spread this way later.

- From flies or dirty hands, germs are carried to food.

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- From water which is unsafe to drink. If people drink it the germs will enter their bodies.

In future lessons you will be learning more about this and also how you can teach your family and neighbours about good hygiene.

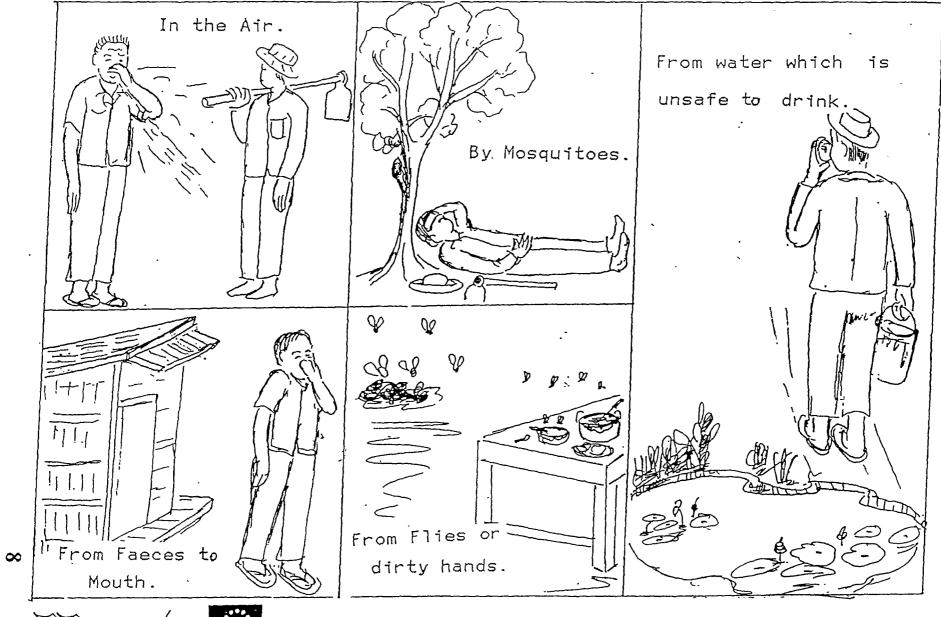
REMEMBER

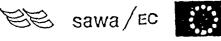
* Better hygiene can prevent many illnesses that are spread by germs.

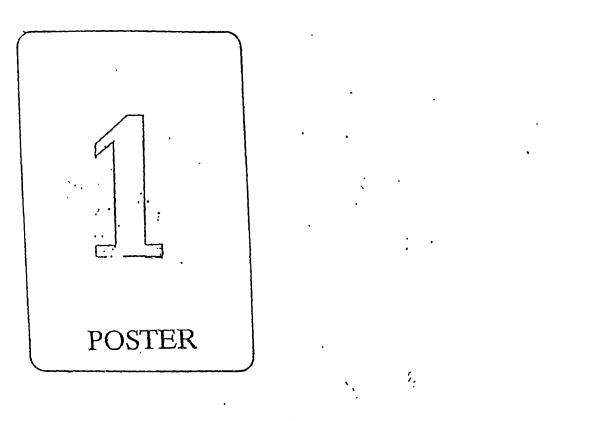
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HOW GERMS ARE SPREAD







LESSON 2

PERSONAL HYGIENE

Teaching methods: Discussion with the students and demonstration.

Teaching aids: Poster about cleaning teeth (no 3).

Learning objectives By the end of the lesson the students will know: (1) when they should wash their hands; (2) why they need to wash their bodies, nails and keep hair clean; (3) why we need teeth and how to take care of them.

In this lesson you will learn how to care for your bodies and keep them clean. Personal cleanliness is very important to prevent the germs coming to our bodies and causing illness. If you remember we learnt about the spread of germs in the last lesson.

Germs love dirty places. They love to hang around in dirt, stools, dust and mud. The cleaner people keep themselves, their homes and villages the less germs there will be to cause illness.

Questions and discussion with the students.

When do you wash your hands?

- You should wash your hands:
- before eating;
- before preparing food;
- after using the latrine;
- after cleaning babies bottom.

Why do we need to wash our hands at these times? You need to wash your hands at these times to keep them clean and to get rid of the germs. Make sure that you wash your hands well, using soap if it is available. If your fingernails are dirty you should scrub them using a nail brush to clean out all the dirt under the nails.

Why do we need to wash our bodies? We need to wash our bodies to: - remove dirt and grease; - to prevent skin infections,spots,rashes and sores.

How often do we need to bathe? We need to bathe at least once a day, using soap to remove all the dirt. make sure you wash your face, hands, neck, ears, feet, under arms and between your legs.

Where do you get your water for bathing from?

Is there a problem with lack of water during the dry season?

Why is it important to look after our nails? It is important to keep your nails cut short because if they are long they can carry worm eggs and germs.

How should we look after our hair? Hair should be washed regularly, at least once a week. It needs to be brushed every day and checked regularly for head lice. These are little insects that like to live in hair. Lice causes itching and sometimes skin infections. Nits which are the eggs of lice, cement themselves to the hair. It is very common for children to get them and they can easily be removed by a special comb. Your mother or older sisters will check your hair for you.

Why do we need to wear shoes? If you walk around outside the house with no shoes on it is possible for baby hookworms to get into your feet and cause anaemia (thin blood). You will be learning more about this in a future lesson.

Why do we need teeth? We need teeth for: - biting and chewing our food; - smiling and looking good.

Having good healthy teeth allows us to eat a lot of different types of food. We have two different kinds of teeth because our teeth have two main tasks-biting and chewing. Our front teeth are for biting food and the back ones are for chewing it.

We get two sets of teeth in our life. The first set begins to fall out between the ages of five and eight years. the second set is the last set and you will have no more. This is why it is important to look after your teeth carefully.

How can we look after our teeth? We can look after our teeth by: -brushing our teeth in the mornings when we get up and at night before we go to bed; - using a toothbrush or brush stick to clean our teeth; - not eating too much sugar, sweets, biscuits and fizzy drinks that can rot your teeth.

How should we brush our teeth?

Show the students the poster of how to brush their teeth. You should brush your teeth from top to bottom, never side to side. Brush the front, back, top and bottom of all the teeth. If you do not have toothpaste you can use salt instead.

REMEMBER

* You should brush your teeth every morning and every night.



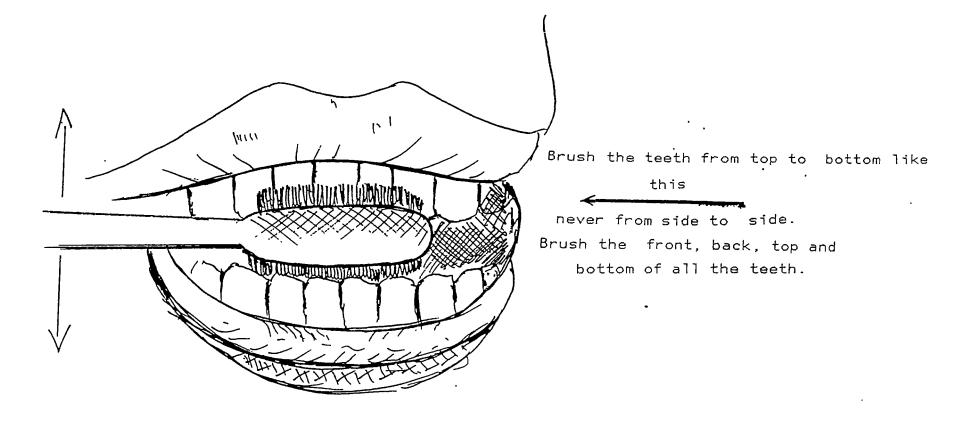
- * Eating too much sugar, sweets and biscuits can rot your teeth.
- * Keep your nails short to keep germs and worm eggs away.

STUDENT'S ACTION

I will tell the other members of my family that to keep the germs away we must not forget to wash our hands:

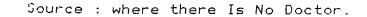
- after using the latrine;
- after cleaning babies bottom;
- before preparing food;
- before eating food.

HOW TO CLEAN OUR TEETH



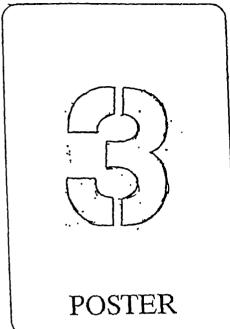
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LESSON 3

WHY IS CLEAN WATER SO IMPORTANT AND HOW CAN WE PROTECT IT ?

Teaching methods: Discussion with the students: encourage all the students to participate. There is no need for the students to write anything down. The lesson also includes a demonstration with the students.

Teaching aids: Poster on water uses (no 4). Poster on how water can become dirty (no 5). A bowl of water.

Learning Objectives By the end of the lesson the students will know: (1) about water uses; (2) what is safe and unsafe drinking water; (3) about safe transportation and storage of water

(3) about safe transportation and storage of water.

Water is our best friend, without it, animals and humans become weak and die. In many countries where there is not enough water and people suffer. Water is very precious so we must be careful to keep it clean and safe.

Questions and discussion with the students

What do we use water for ?

Show the students the poster on water uses.

How many uses of water can you think of ?

- Water is used for drinking: animals need water to drink; people need to drink.
- Water is used for cooking:
- Water is used for washing : washing our bodies; washing our cooking pots; washing our clothes.
- Water is used for industry: for big factories that produce things - places in Pursat like the timber yards etc.
- Water is used for growing plants: rice and other crops need water to grow; fruit and vegetables need water to grow.
- Water is used to produce electricity (hydro-electric power).
- Water is used by children (and adults!) for playing, swimming and

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boating.

Can you think of any other uses for water ?

Where do you get your water from ?

- a river or stream?
- a pond?
- a spring?
- a well with a bucket?
- a well with a hand pump?
- a rain water jar?
- water from the Water works water sellers?
- water from the private water sellers?
- piped water to the house from the Water works?

How can water become dirty ?

In Pursat the river is the main source of water for household needs because the river water is readily available. As the river water is fast flowing many people believe that this water is of good quality but that is only partly true. The water is good for washing and bathing but not for drinking. The water is very clean at its source in the kravan mountain but to reach Pursat it has to pass through many villages. In all these places people and animals use the water for their daily living activities. This means that the water will get unintentionally polluted by soap,oil,garbage,urine and the stools of humans and animals. This means that by the time the water reaches Pursat town it is not as clean as at its source in kravan mountain. Although the water looks clear it contains germs which we cannot see so it is not safe to drink.

Look at the poster on how water can become dirty for some more examples: here are some more ideas:

- defecating in or near water itself or pumps,wells,or springs (where it can soak into the ground) can make water dirty;
- urinating in or near water itself or pumps,wells or springs (where it can soak into the ground) can make water dirty;
- washing in or near water itself or pumps, wells or springs (where it can soak into the ground) dirties water;
- playing with water pipes,taps,walls,floors or pumps can
- crack, break or plug them and allow the water to become dirty; - dirty containers or drum carts make any water put into it
- dirty; - latrines placed too close to water (less than 20 meters) allows
- faeces to soak through the ground and make water dirty;
- animals urinate and defecate in or near water and can break or crack water pipes, taps, walls or floors and allow water to become dirty;
- industry can make water dirty when factories use water to wash or make things.

Ask the students if they have any more ideas ?

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<u>Demonstration</u>

Ask 8 children to sit in a circle on the floor and give them a bowl of water. Ask the first child to wash his hands in the water and then pass it on to the next child who again washes his hand in the same water. All the other children are asked to wash their hands until the bowl gets to the last child who is asked to drink the water. The children should realize that the water is now very dirty. (The water should not, of course, be drunk).

It is very important that water which is used for washing ourselves and our clothes be kept separate from drinking water.

What is safe drinking water?

Draw a vertical line down the middle of the blackboard and on the right hand side write safe drinking water and on the left hand side write unsafe drinking water.

Ask the students to give you examples of safe drinking water.(It may be necessary to give the younger students help with this). Write their answers on the board.

Possible correct answers about safe drinking water are:

- water that has been boiled (15 mins);
- treated water (filtered\purified\chlorinated);
- water directly from the source (for example a spring);
- water from a protected well (covered and with a hand pump);
- rainwater that is properly stored (in a covered jar) and handled with care;
- piped water(if the water has been treated before it is pumped into the pipeline).

What is unsafe drinking water?

Ask the students to give you examples of unsafe drinking water and write them on the board.

Possible correct answers about unsafe drinking water are ;

- any sources of water that are likely to have been contaminated as
- a result of the actions of people or animals;
- unboiled river water;
- pond water.

Review the lists and ask the students if they agree with each list. If any of the answers are on the wrong side change them over explaining why you have done so.

What happens if we drink unsafe water?

Even when there is enough water, if it is not clean and safe it can be our worst enemy. Babies and young children especially need clean drinking water because dirty water which has germs in it makes them ill. Some of the illnesses caused by dirty water are

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diarrhoea, cholera and typhoid. You will be learning about these illnesses later.

How can germs which cause illnesses get into the water?

- They can get into the water :
- at the source;
- when we collect it and carry it home;
- when we store it and use it at home.

How can we make sure the water the water is kept clean at the source?

Ask the students their ideas.

Correct answers would include:

- keep the water tank clean;
- keep the rainwater jar clean and covered;
- keep the well covered;
- don't let people or animals bathe, urinate or pass stools in or near water that is to be used for drinking.

How can we make sure water is kept clean when it is transported to our homes?

We can:

- transport the water in clean drum carts which have a lid or are covered with a clean cloth if there is no lid;
- if hoses are used they should be clean and in good condition;
- any containers used should be clean and have a lid;
- don't put our hands into the drum cart or container.

How can we make sure water is kept clean when we store it at home? The water can be kept clean if the container:

- is kept clean;
- is cleaned and rinsed before it is filled;
- is used only for clean water;
- is kept covered with a clean cloth or lid;
- a clean cup, ladle or scoop is used to take water out of the container so that your hands do not touch the water.

REMEMBER

* If there are germs in the water, the water is not safe to drink.

* It is important to keep safe water safe by storing it in a clean covered container.

- * River water is not safe to drink unless it has been boiled for 15 minutes.
- * Rainwater is safe drinking water.

STUDENT'S ACTION

I will tell my family what is safe drinking water. I will make sure that the drinking water in my house is kept in a clean covered container.

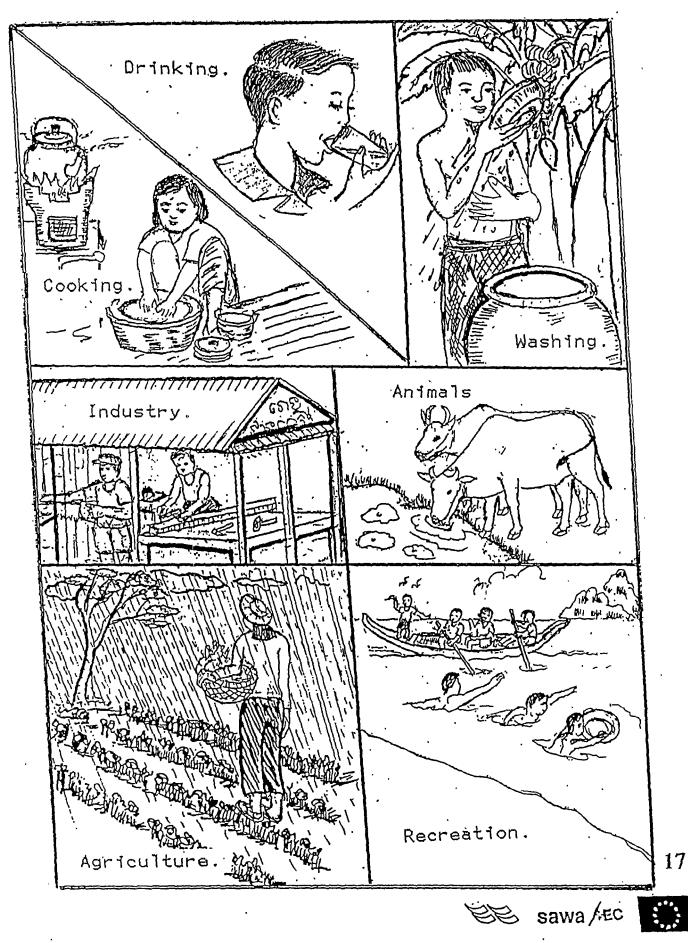
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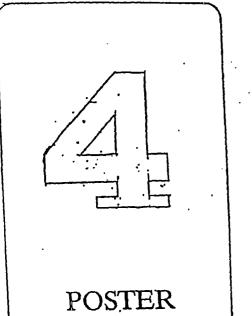
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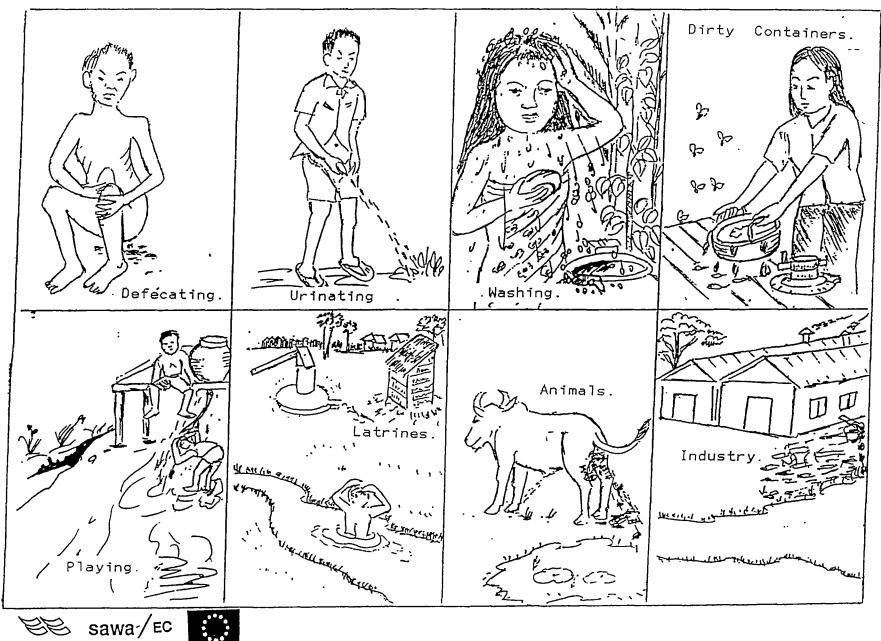
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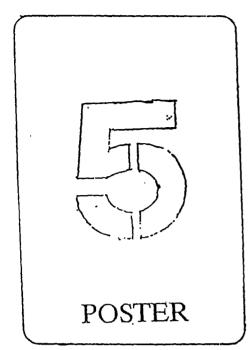
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HOW CAN WATER BECOME DIRTY ?





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LESSON 4

THE INFLUENCE OF WATER ON HEALTH

Teaching methods: Discussion with students and demonstration.

Teaching aids: Picture of dehydrated baby (no 6).Poster of how to make up oral rehydration solution (no 7). Poster of illnesses caused by lack of water for washing (8).

For the demonstration on making oral rehydration solution: teaspoon,glass,a bottle of safe drinking water (use water from the rainwater jar),small amount of salt,small amount of sugar.

For the demonstration about dehydration: plastic bottle, knife, clean bucket with water from the rainwater jar, small piece of cloth or cork (to make a plug), cup or dipper, damp cloth.

Learning Objectives

By the end of the lesson the students will know:

- what illnesses people can get when they drink dirty water and how these illnesses can be prevented;
- (2) how to prevent dehydration and how to make up oral rehydration solution;
- (3) what illnesses people can get if there is not enough water to keep their bodies clean.

In a earlier lesson we talked about why clean water is important and how you can protect it. In this lesson we will talk about the influence of water on health.

Why is it important to have lots of clean water? In some countries people get very sick and die because they don't have enough water to drink. In some places people get sick because they drink dirty water. In other places people get sick because there is not enough water to keep their bodies clean.

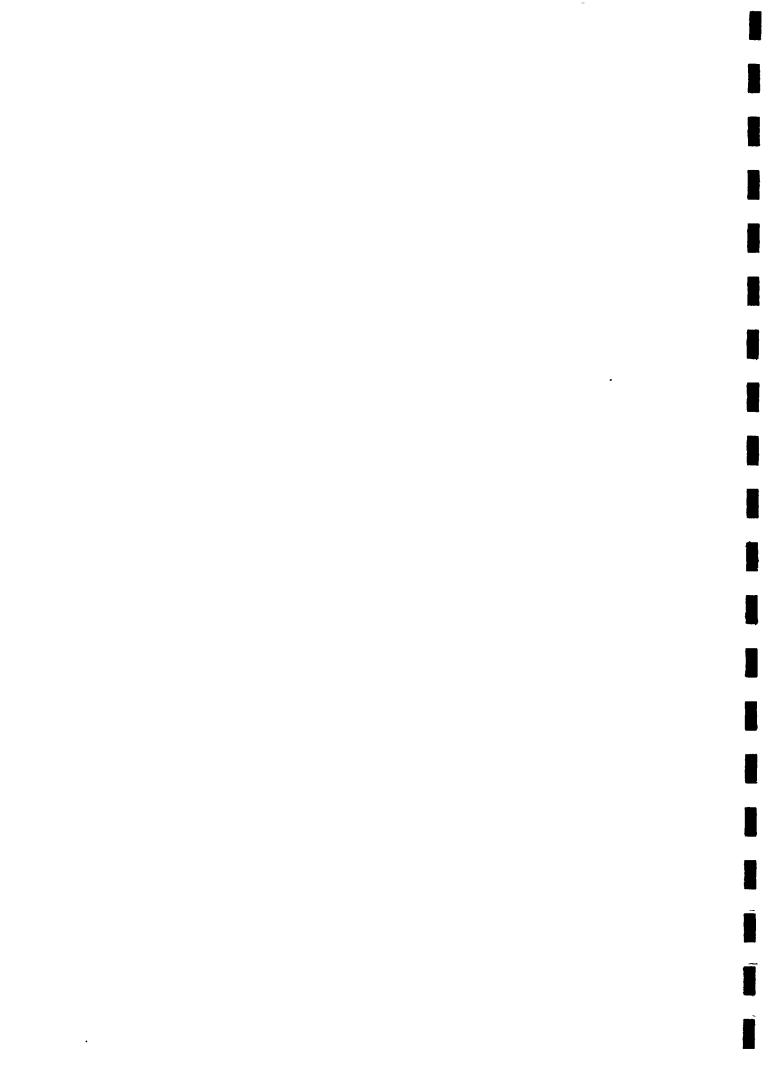
People can become sick when :
- they drink dirty water;
- when there is not enough water to wash.

What illnesses can people get when they drink dirty (unsafe water) and how can they be prevented? They can get: - diarrhoea; - dysentery; - cholera;

- typhoid.
- cypnora.

What is diarrhoea?

Diarrhoea means frequent watery stools. Often children with diarrhoea also vomit and have severe pains in the tummy. The stools may smell strongly and also pass noisily. Diarrhoea is caused by



swallowing germs that live in dirty food and water and human or animal stools. The body tries to get rid of the bad germs through the diarrhoea. It is very dangerous for young children because they lose a lot of water especially if they are vomiting and have a fever. Babies and young children may die of diarrhoea, usually because they lose too much water and salts from their bodies and nobody helps them to drink. This lose of water and salts is called dehydration.

Show the children the picture of the baby who is dehydrated.

<u>Demonstration to teach about dehydration of the body through</u> <u>diarrhoea</u>

Ask one of the students to assist you with this demonstration. You will need a plastic bottle for this. On the bottle draw a mouth, nose and eyes. Make a small hole in the bottom of the bottle and fit it with a plug of some kind (such as tightly folded piece of cloth). Make a big hole at the top also and fill the bottle with water and then cover it with a damp cloth. Explain to the students that the water in the bottle represents the water in our bodies. Take out the plug. The water which drains out is like the liquid which is lost in diarrhoea, it must be replaced. As the water drains out the cloth sinks in. This is similar to the soft spot on a baby's head, the fontanelle, sinking in when the baby is dehydrated. More water must be added to the bottle and to the person. As you replace the water you will see how quickly it drains out.

* The teacher should use safe drinking water for this demonstration such as water from the rainwater jars because it is important that the children understand that the water in the body must be replaced with safe drinking water.

It is very important to prevent dehydration.

This can be done by making sure the adult or child drinks as much liquid as he loses from the time the diarrhoea starts. The best liquid is a Special Drink, called Oral Rehydration Solution. You can easily make this special drink yourselves using salt, sugar and clean water and so help to treat diarrhoea in younger children and babies. This special drink should be given until the diarrhoea stops.

Show the children the poster of how to make one glass of oral rehydration Solution.

Demonstration

Ask one of the students to help you to make up the ORS.

Into one glass of clean safe water (you can use water from the rain water jar) add one level teaspoon of sugar and a pinch of salt and stir it up. Get another one of the students to taste it.remember it should be no more salty than tears.

Ask the children if any of their younger brothers or sisters have ever had this special drink ?

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How can diarrhoea be prevented? Diarrhoea can be prevented by : - drinking clean safe water; - washing hands after using the latrine; - washing hands after cleaning babies bottom;

- washing hands before cooking or eating.

What illnesses can people get when there is not enough water to wash and they are not able to keep their bodies clean? They may get illnesses like : - diarrhoea;

- conjunctivitis;
- impétigo
- lice
- scabies
- ringworm

Show the students the poster of illnesses people can get if there is not enough water to keep their bodies clean.

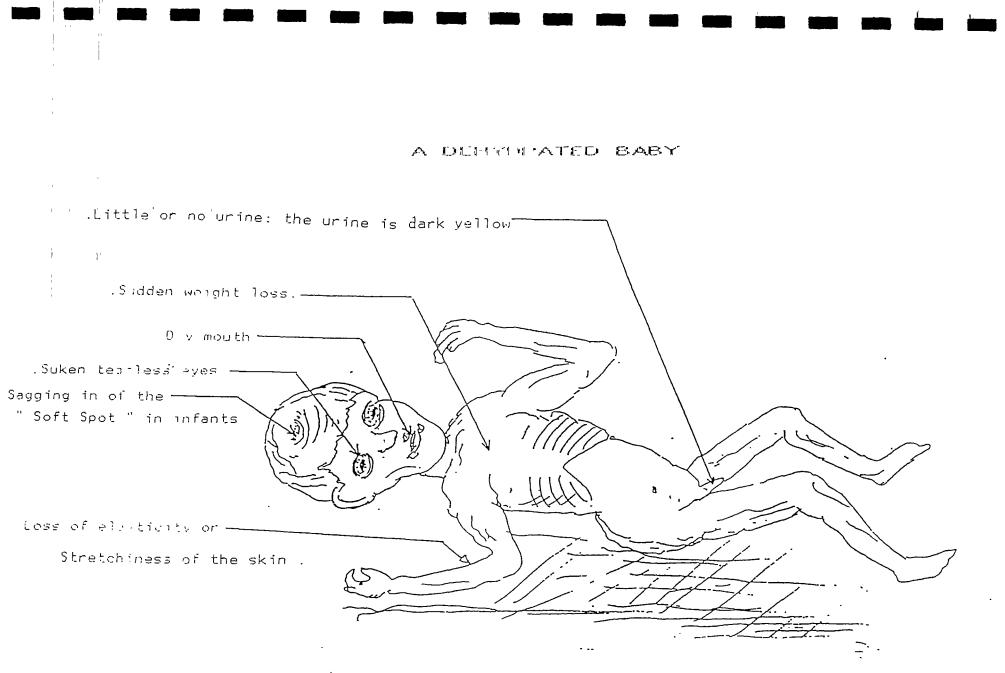
REMEMBER

- * Diarrhoea can be prevented by drinking safe water.
- * Don't forget to wash your hands after using the latrine.
- * Don't forget to wash your hands after cleaning babies bottom.
- * Don't forget to wash your hands before eating.

STUDENT'S ACTION

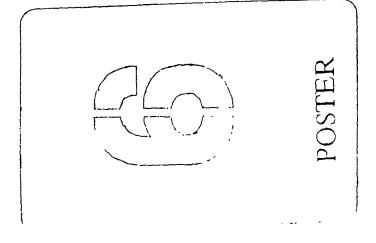
I will tell my family and neighbours why it is important that they drink safe drinking water.



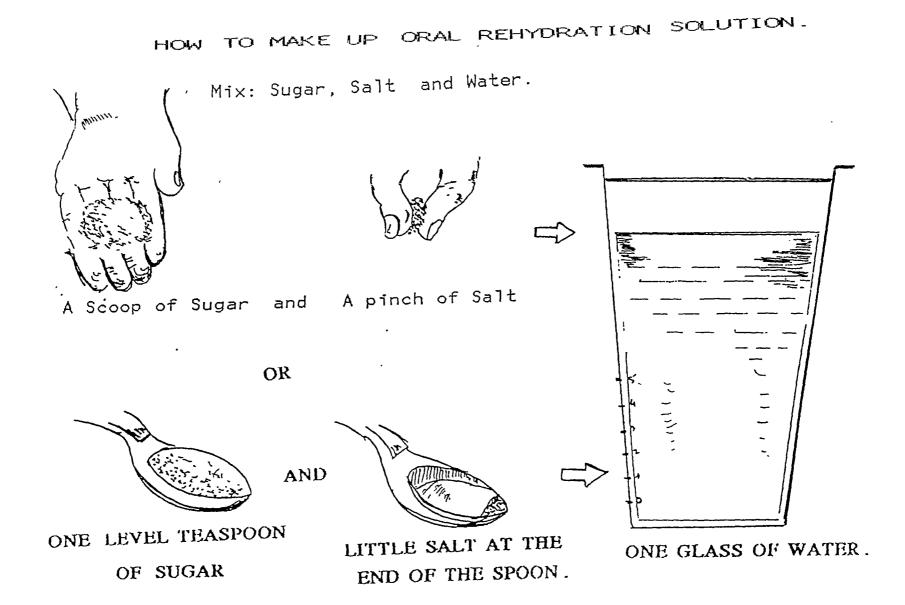


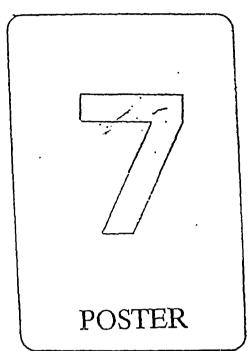
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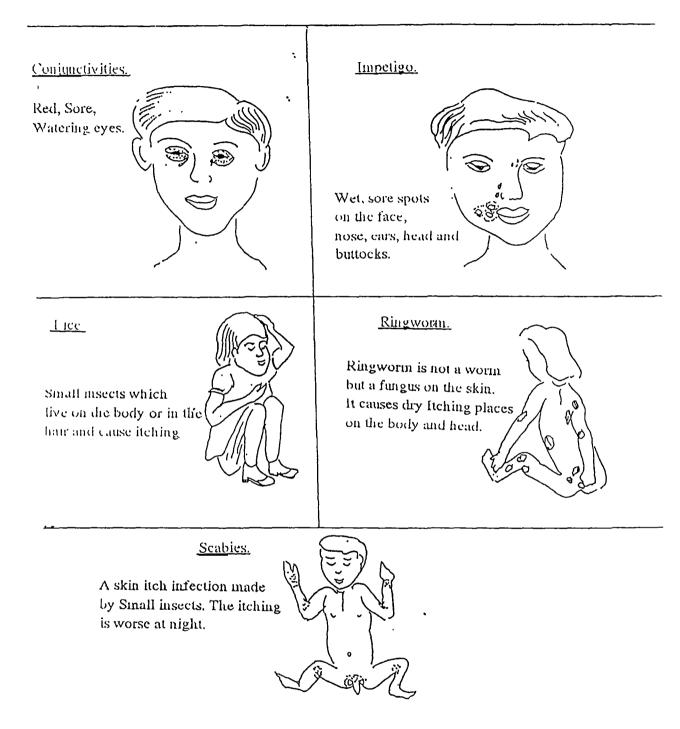
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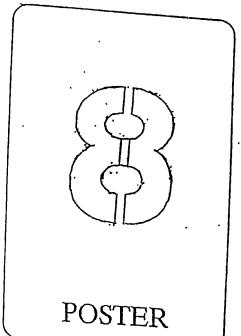
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ILLNESSES CAUSED BY LACK OF WATER FOR WASHING



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LESSON 5

SAFE DISPOSAL OF STOOLS

Teaching methods: Discussion with the students and storytelling

Teaching aids: Posters to show how diarrhoea is spread (nos 9 and 10). The rabbit poster showing how to use and clean the school latrines (no 11). Flipchart with the hygiene story.

Learning objectives By the end of the lesson the students will know: (1) how diarrhoea is spread. (2) how the germs in stools can cause illness. (4) how to use the school latrines.

Diarrhoea,typhoid,cholera and some other illnesses are caused by germs present in stools (animal and human). You may remember that you already learnt in an earlier lesson that these germs can pass from one person to another on the hands, in food, in water and on flies?

Show the students the posters which show how diarrhoea is spread.

Tieda has diarrhoea. The chicken walks in the dirt. The chicken steps on the food. The family eats the food. The family gets diarrhoea.

Bunna has diarrhoea. Bunna forgets to wash his hands. Bunna gives Vath a banana. Now Vath has diarrhoea.

Ask the students if they can tell you how germs passed from Bunna to Vath?

The answer is because Bunna did not wash his hands after defecating so he then passed the germs on to the banana and the banana passed the germs on to Vath when he eat the banana.

Questions and discussion with the students.

Where do people in their village go to defecate? Where do the children in their village go to defecate? What do the people in their villages do with the stools of the babies or young children?

The stools of babies and young children Many people think that children's stools are harmless, but this is wrong. A baby's or young child's stool has perhaps five or six times as many germs as the stools of an adult. Babies have no

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control over their bowels and may pass their stools in many different places both inside and outside the home. You will have noticed your younger brothers and sisters doing this. This is not only dirty but also very dangerous because germs from these stools can easily spread to the rest of the family and neighbours.

How can the germs in stools cause illness?

People can swallow the germs that are found in stools:

- if the germs from the stools are in the water, this happens if people or animals pass stools near or in water;
- if the germs from the stools are in the food, this happens if food is prepared or eaten with dirty hands;
- animals or insects touch the food;
- germs from the stools are on your hands.

Ask the students if they know how this happens?

This happens if:

- you do not wash your hands after defecating.

- you do not wash your hands after touching baby's stools.
- you play near animals and touch their stools.
- germs from the stools are on cooking or eating utensils.

What can you do to prevent the spread of Germs?

1. Use a latrine.

- 2. Wash your hands after using the latrine.
- 3. Wash your hands after cleaning babies bottom.
- 4. wash your hands before cooking.
- 5. Wash your hands before eating.

How to use the latrine and keep it clean

Show the students the rabbit poster about how to use and keep clean the school latrines.

<u>Picture 1</u> I must defecate in the hole of the latrine.

<u>Picture 2</u> I must clean my bottom after defecation.

<u>Picture 3</u> I must use 3 scoops of water to flush the latrine.

<u>Picture 4</u> . I must wash my hands before leaving the latrine.

The teacher should make up a story to tell the younger students using the hygiene story flipchart.

Grade 4 and 5 students could use the hygiene story flipchart to make up their own story.

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REMEMBER

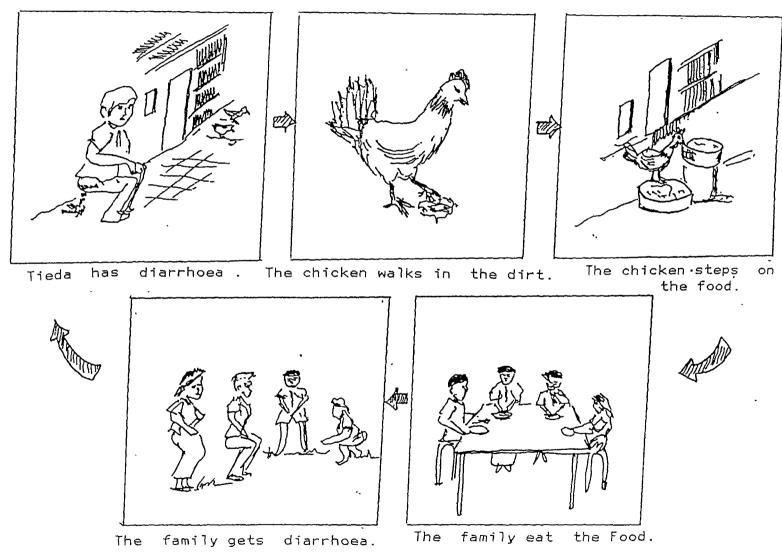
* If you have a latrine at your home you should use it and clean it the same way as the school latrines.

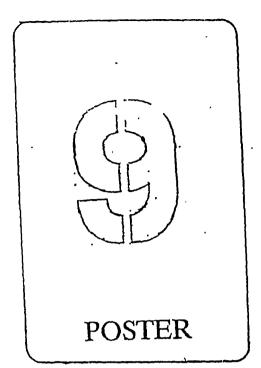
* If you have a latrine at your home you should tell other members of your family how to use and clean it.

STUDENT'S ACTION I will tell my family and neighbours tell my family and neighbours about the safe disposal of stools.

I will take my little brothers and sisters to the latrine, or cover or bury their stools.

HOW DIRRHOEA IS SPREAD.



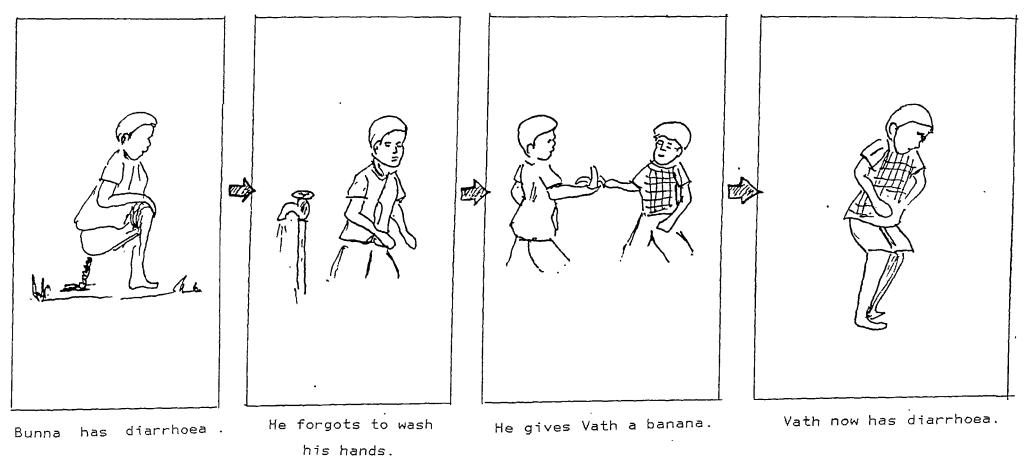


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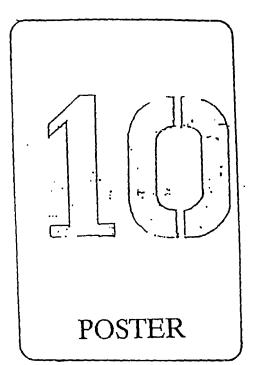
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Source. Child to Child



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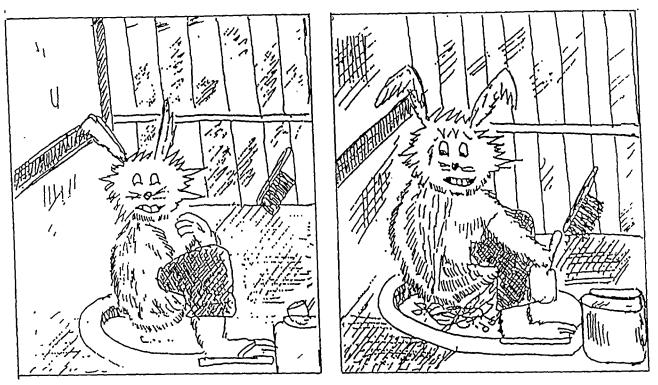
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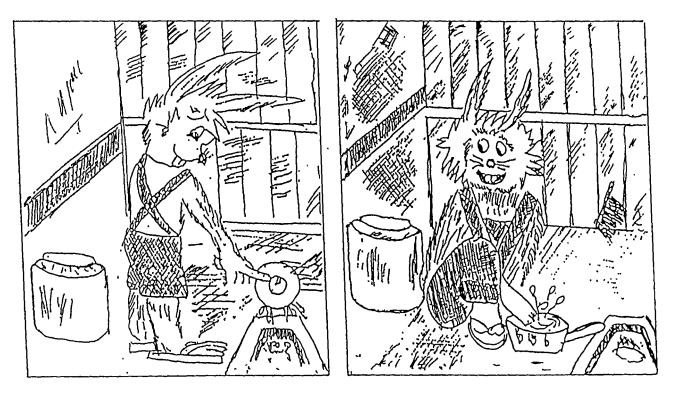
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THE RABBIT POSTER



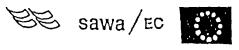
l must defecate in the hole of the latrine.

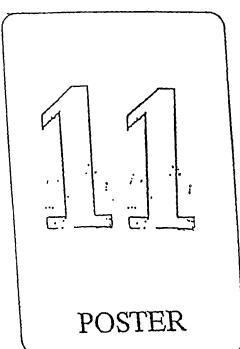
I must clean my bottom after defecation.



I must use 3 scoops of water to flush the latrine.

I must wash my hands before leaving the latrine.





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LESSON 6

WORMS

Teaching methods: Discussion with the students.

Teaching aids: Poster showing the different types of worms (no 12). Poster showing how worms are spread (no 13). Poster showing the life cycle of the roundworm (no 14). Poster showing how hookworm are spread (no 15).Poster showing the life cycle of the tapeworm (no 16).

Learning objectives

- By the end of the lesson the students will know:
- (1) how worms in general are spread and how to prevent them.
- (2) what threadworm are, how they are spread and how to prevent them.
- (3) what roundworm are, how they are spread and how to prevent them.
- (4) what hookworm are, how they are spread and how to prevent them.
- (5) what tapeworm are, how they are spread and how to prevent them.

Worms are parasites. What is a parasite? A parasite is something which gets its food from our body. They get into our bodies in many ways. They can make us very ill and stop children growing. Worms can be prevented by simple hygiene practices and cured by medicine.

Ask the children if any of them have ever had worms?

How do we get worms? Worms can multiply very rapidly. One worm can lay thousands of tiny eggs that we cannot see. When a worm is inside the body it lays thousands of eggs which pass out of the body in the stools.

If the stools are left where we sit,eat or walk,the eggs in the stools can get into the things we touch:water,soil etc. Flies can move from the stools and carry the eggs onto our plates and cups or onto our food.

We swallow these eggs without knowing and they grow into worms inside us. The worms then pass through the different parts of our body until they find a good place to grow, usually in our intestines. where they will eat our food. You can help to prevent the spread of worms by using the latrine and not forgetting to wash your hands afterwards.

Show the students the poster of how worms are spread.

Note for teachers

For grade 1 and 2 children this may be all that you want to teach them about worms? The rest of the lesson is aimed at the children in higher grades. Some common harmful worms are:

- threadworm;

- roundworm;

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hookworm;

- tapeworm.

Threadworm

These are tiny white worms like bits of thread. These are very common especially in young children. They can be seen on a child's anus especially at night because that is the time when the female comes out to lay her eggs which are too tiny to see but make the child's anus very itchy. This makes the small child scratch and collect eggs under his nails. He or she then leaves the eggs on whatever he or she touches eg food, bedding and his clothes. In this way he or she swallows more eggs and the whole family can easily get threadworm. Children with threadworm are tired because they sleep badly and uncomfortable because they itch.

Using the worm poster point out thread worms to the students.

How can Threadworm be prevented?

To prevent threadworms you need to :

- keep clothes and bedclothes clean;
- cut fingernails short;
- dispose of children's stools away from living and play places. The small children should be taken to use the latrine if you have one;
- wash hands before eating and after a bowel action;
- wash your bottom each morning and after a bowel action.

Threadworm can be cured if the whole family takes worm medicine. It is however better to prevent them occurring in the first place.

Ask the students if any of them have ever had threadworms and what it was like?

Roundworm

These are pink and long with pointed ends. It is easy to see them in the stools and sometimes children cough and spit them out. Most of them however live in the intestines, laying thousands of eggs. These invisible eggs have hard shells. When the eggs come out of the body in the stools, their hard shell allows them to live in the ground for a long time. These eggs get into water, flies carry them and they can be found on fruit and vegetables that are not washed well and even on our hands.

Children with many roundworms are often thin but have large swollen bellies. Too many roundworms can cause discomfort and weakness.

The teacher should point the roundworms out to the children on the worm poster.

Show the children the poster of the life cycle of the roundworm.

How can roundworms be prevented? To prevent roundworms you need to: - wash hands before eating and before handling food;

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- use a latrine or if not available get rid of stools safely;
- kill flies;

- use clean safe water for drinking and cooking.

To cure roundworms the whole family needs to take medicine.

Ask the children if any of them have ever had roundworms? If they had roundworms how did they feel?

Hookworm

Hookworm is very dangerous because it cannot be seen or felt when it goes into the body through our skin (feet,hands,bottoms). These worms hook onto the intestines and suck blood. Their millions of eggs then pass out in the stools. These then hatch into larvae (young worms) which get into bare feet when we walk on them,or into children's bottoms when they sit on the ground. Children with hookworm can get anaemia (thin blood) which makes them very weak and tired.

Show the students the poster of how hookworm are spread.

How can hookworm be prevented? Hookworm can be prevented by:

- wear shoes;

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- make a clean place for small children to play and crawl;
- always use a latrine if one is available, if not dispose of stools safely.

If we think children have hookworm they must go to the hospital because ordinary worm medicine wont work for hookworms.

Ask the students if any of them have ever had hookworm? If they had hookworm how did they feel?

Tapeworm There are many kinds of long, flat tapeworms. The largest come from beef or pork that is not well cooked. Tapeworms have a head and a body which is made up of many segments.

The teacher should point out the tapeworms on the worm poster.

As the tapeworm grows, its end segments become heavy with eggs and break off. These pieces can be seen as they pass out of the body in the stools. When pigs and cows eat they swallow some of these eggs which then get into their flesh. Then people eat this meat and the tapeworm eggs with it.

Tapeworm can make us tired and weak. It can also give us mild stomach aches.

Show the students the poster of the life cycle of the tapeworm.

Tapeworm can be cured by a special medicine from the health worker. It is important to get this so that children and others can get

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well and stop spreading the worms to other people.

How can tapeworm be prevented? Tapeworm can be prevented by: - making sure the meat we eat is well cooked; - using a latrine if you have one.

Questions and discussion with the students. How can you tell if a small child has worms? The answers you would expect would be:

- scratching anus;
- sleeping badly;
- tired;
- stomach ache;
- pale;
- not hungry;presence of worms in the stools.

Have you seen worms? Where did you see them ?

REMEMBER

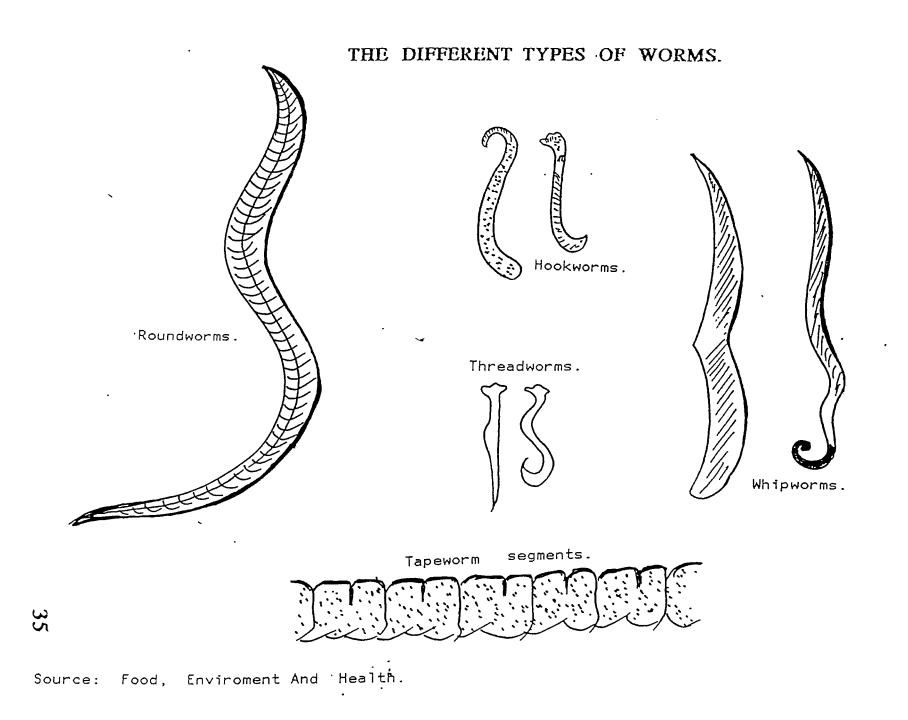
* Prevention of worms is better than cure.

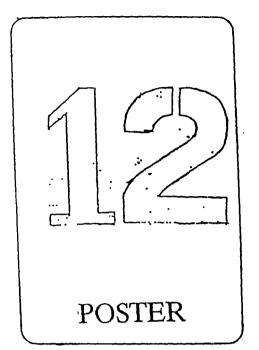
* All intestinal worms are spread by bad sanitation and poor hygiene.

STUDENT'S ACTION I will tell my family and neighbours what we can do to prevent the spread of worms.

I will make sure my younger brothers and sisters wear shoes when they are outside the house.

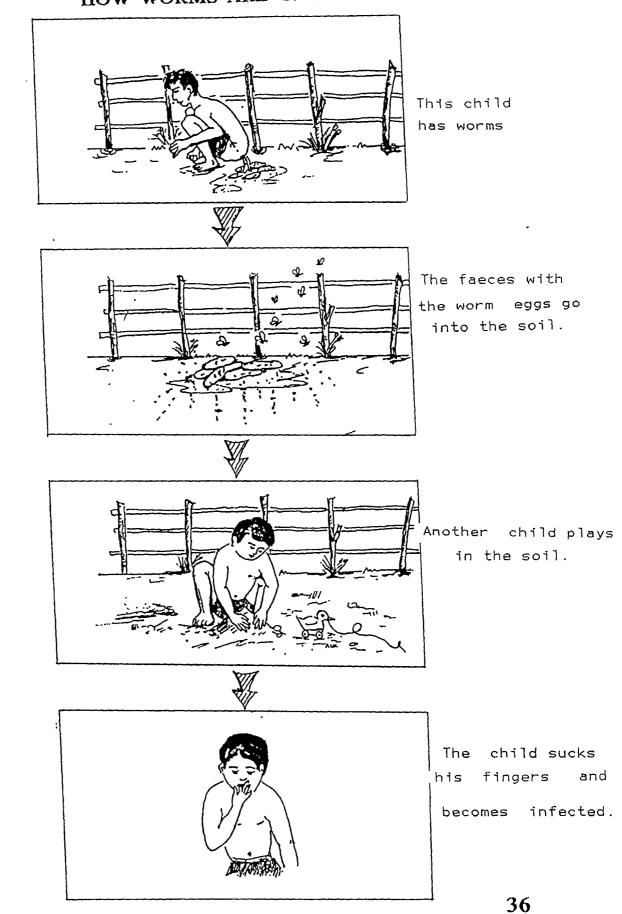
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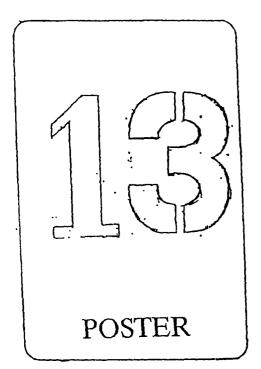


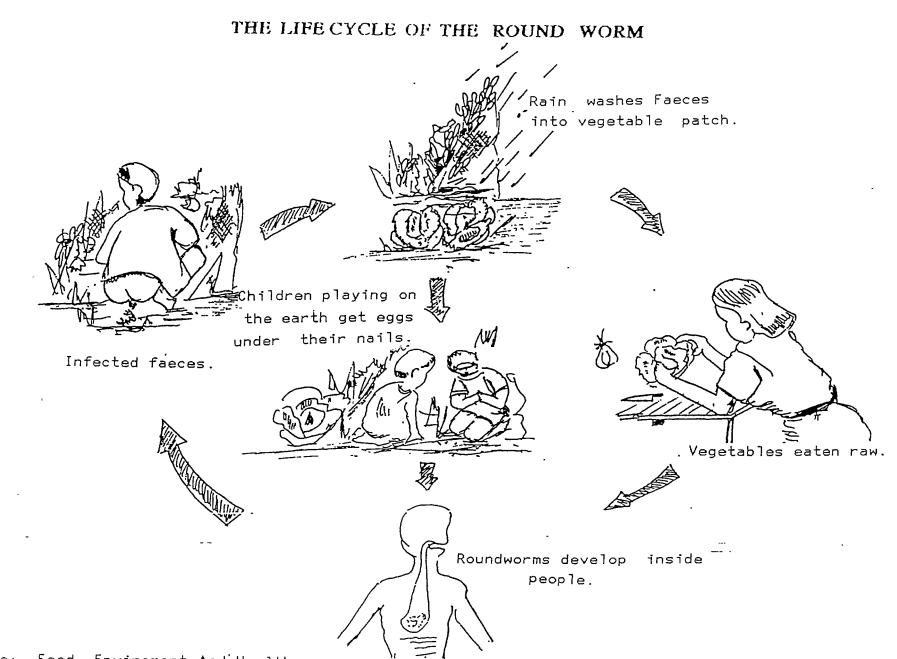


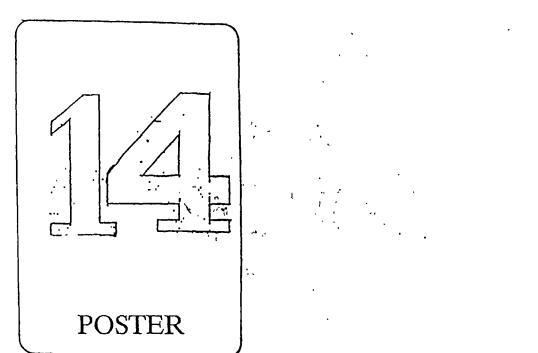
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HOW WORMS ARE SPREAD







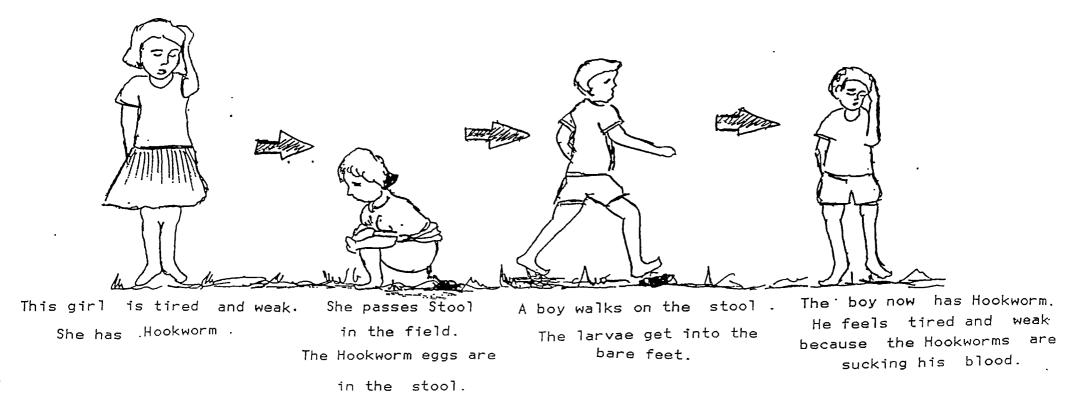


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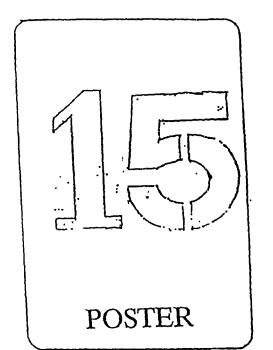
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.HOW HOOKWORMS ARE SPREAD.



Source: Child to child



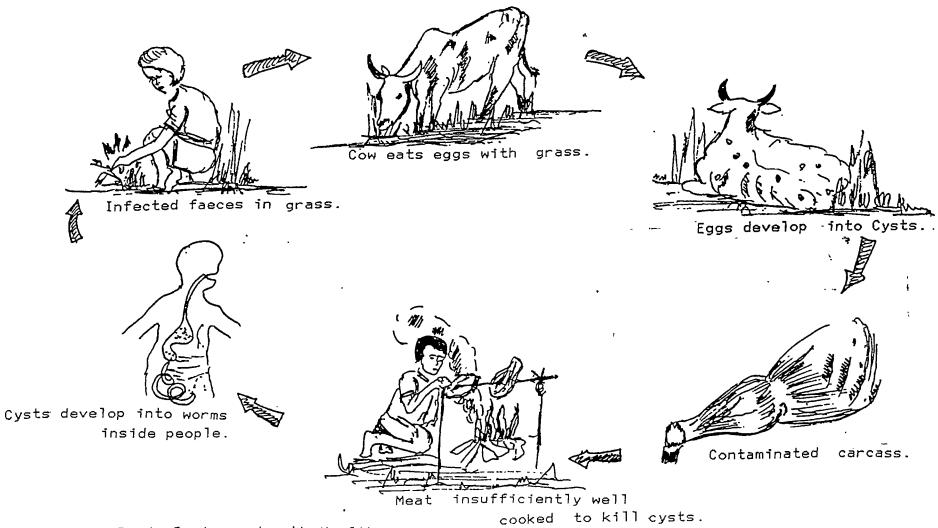
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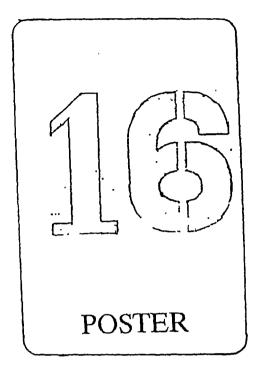
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THE LIFE CYCLE OF THE TAPEWORM.



Source: Food, Enviroment and Health.



LESSON 7

WHAT DISEASES CAN WE GET FROM MOSQUITOES ?

Teaching methods: Discussion with the students and storytelling.

Teaching aids: Poster on how malaria is spread (no 17). Poster on how to prevent malaria (no 18). Poster to show how dengue fever is spread (no 2).

Learning Objectives By the end of the lesson the students will know: (1) what diseases are spread by mosquitoes; (1) how malaria can be prevented.

Ask the students if they know what diseases we can get from mosquitoes?

In Cambodia there are two diseases that we can get from mosquitoes
they are :
- malaria;
- dengue fever.

What is malaria? Malaria is an infection of the blood. It is a very serious disease which affects millions of people worldwide and kills large numbers of children. It is spread by mosquitoes which breed in stagnant water and bite at night, spreading germs from infected to healthy people.

Show the children the poster of how malaria is spread.

Ask the students if any of them have had malaria?

If any student has they can tell the other students what it was like.

How can we prevent malaria?

Ask the children if they have any ideas on how malaria can be prevented.

Malaria can be prevented by:

- sleeping under a mosquito net;
- wearing clothes in the evening and at night which cover our arms and legs;
- covering the rainwater jars with a lid and mosquito netting (like the school rainwater jars);
- covering any containers used for storing water with a lid;
- closing ponds that are not used anymore;
- filling up puddles of still water around the house with earth and stones.



Show the children the poster on how to prevent malaria.

How do we know if someone has malaria?

Malaria begins with a high fever and often there is shivering. If you think someone has malaria it is important that they go to see a health worker at once so that they can get treatment.

<u>A story about malaria</u>

Sok had a sister called Wanna who was 7 months old. One day Wanna had a very high fever and was shivering. Sok and his mother were very worried about Wanna as she was very ill so they took her to the hospital. The nurse said that Wanna had malaria, she had been bitten by a mosquito. Sok did not understand, he had been also been bitten but he had not caught malaria. The nurse said that only some mosquitoes can give children malaria.

The nurse gave Wanna's mother medicine and told her how much to give and when. The medicine was so bitter it was not easy to get Wanna to take it but the nurse said it was very important that Wanna finishes all the medicine.

So Sok and his mother gave Wanna the medicine, they kept her cool and gave her lots of drinks. Wanna was better. She did not like the medicine but Sok and his mother remembered what the nurse had said and so they gave Wanna the medicine for two more days. Now Wanna is well again but she always sleeps under a mosquito net to stop the mosquitoes biting her at night.

What is dengue fever? It is spread by mosquitoes which lay their eggs and grow up in water. The mosquitoes that spread dengue fever bite during the daytime instead of at night.

Show the students the poster on how dengue fever is spread. How do we know if someone has dengue fever? If someone has dengue fever they will have a fever, headache, muscle pain and a rash. They should go to see the health worker.

How can we prevent dengue fever? We can prevent dengue fever by :

- ne can prevent dengde rever by .
- covering containers for storing water with a lid;
- covering the rainwater jars with mosquito netting and a lid (like the school rainwater jars);
- closing ponds that are not used anymore;
- filling puddles around the house with earth and stones.

REMEMBER

* Malaria is a killer disease, mosquitoes are quick and clever, don't get bitten, avoid malaria.

STUDENT'S ACTION

I will check the mosquito nets in my house for holes and sew them up.

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I will tell my family and neighbours why it is important that we sleep under a mosquito net at night.

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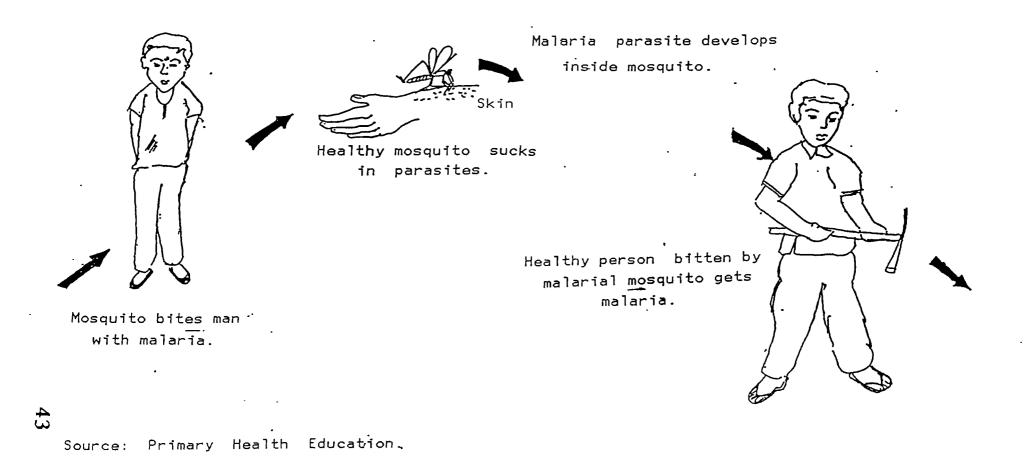
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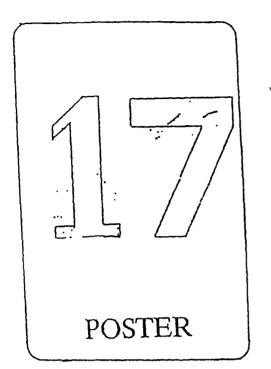
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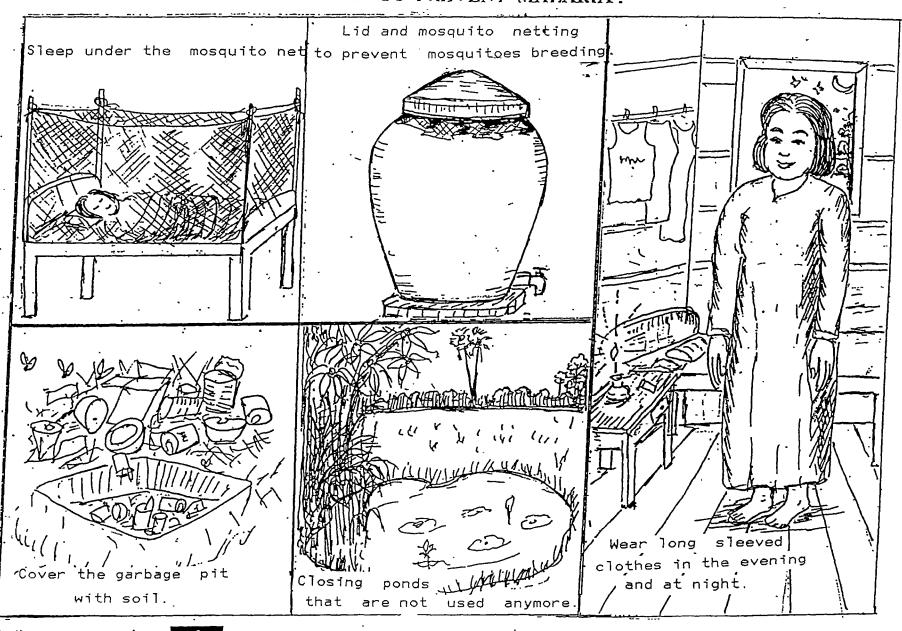
HOW MALARIA IS SPREAD

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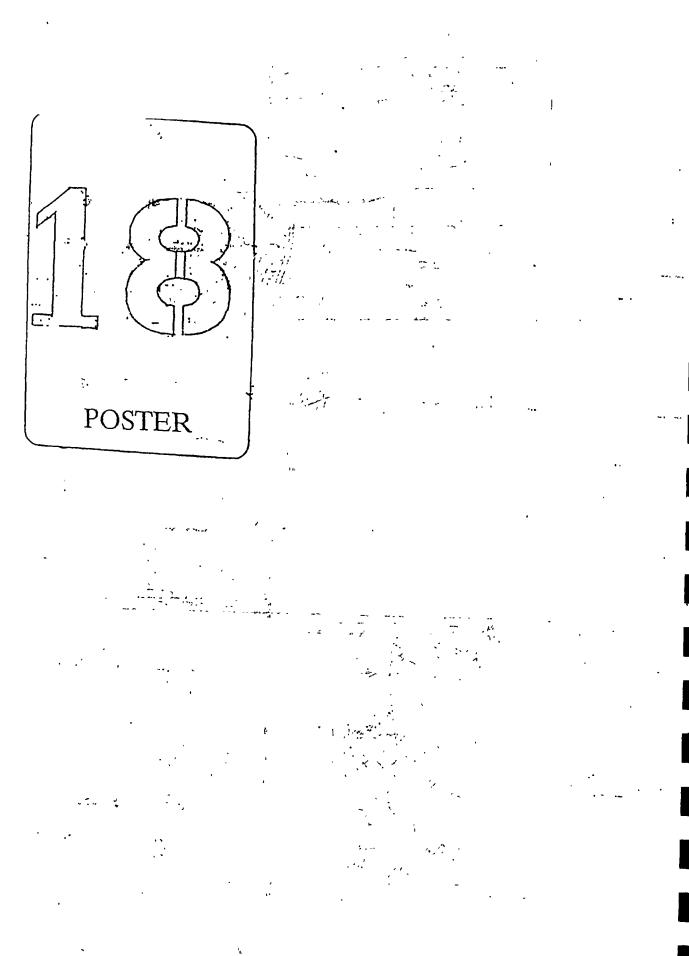


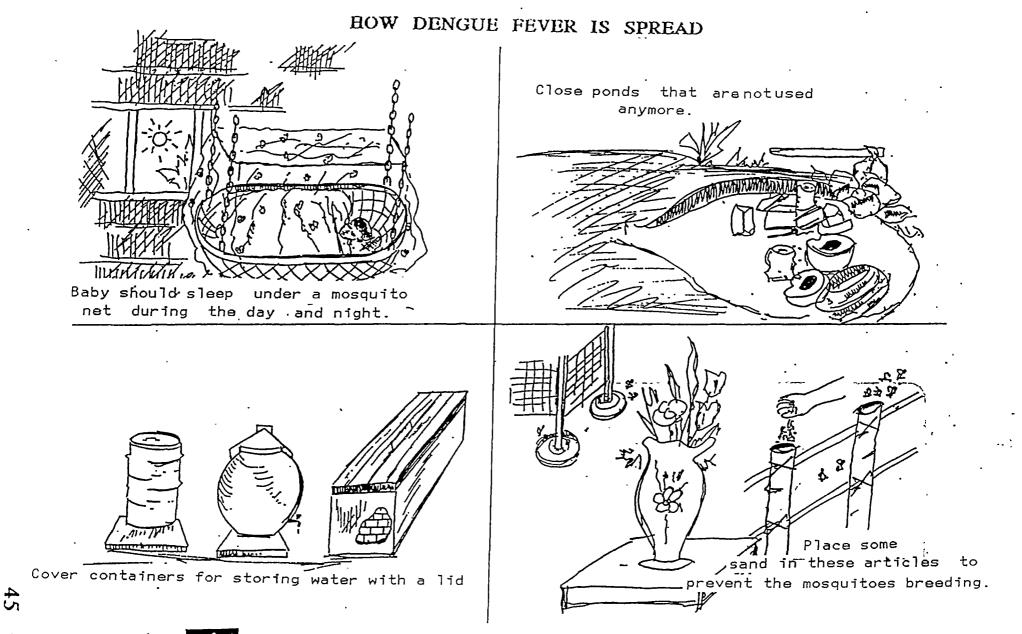
HOW TO PREVENT MALARIA.

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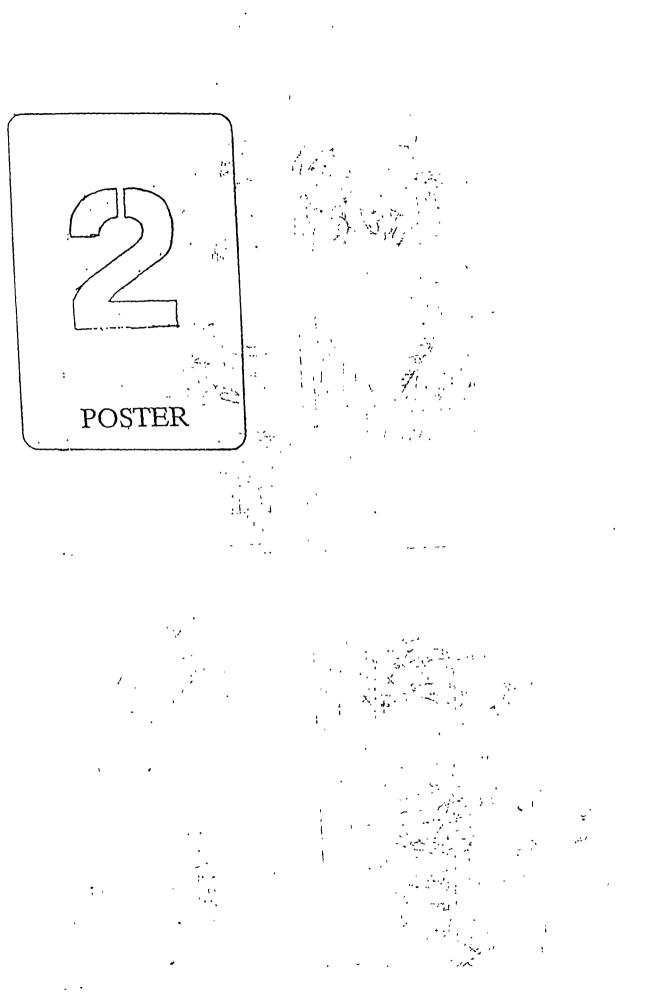






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LESSON 8

SCHOOL HYGIENE

Teaching methods: Discussion with the students.

Teaching aids: Rabbit poster (no 11). Poster about care of the latrines (19). Poster of the happy rainwater jar (no 20). Poster to show how to keep the school compound clean (no 21).

Learning objectives By the end of the lesson the students will know: (1) how to take care of the school latrines; (2) how the giant rainwater jars function; (3) how to keep the classrooms clean; (4) how to keep the school compound clean;

(5) how to protect the school well hand pump.

In this lesson you will be learning about how to make your school a clean and healthy place to study in.

Questions and discussion with the students

The school latrines

You may remember that you learnt in an earlier lesson that diarrhoea and some other illnesses are caused by germs present in stools? This is why stools must be disposed of safely. It is for this reason that you should pass stools and urinate in the latrines and not in the school compound.

What does the rabbit poster in the latrine tell you to do about using the latrine?

Show the students the rabbit poster.

<u>Picture 1</u> I must defecate in the hole of the latrine[.]

<u>Picture 2</u> I must clean my bottom after defecation.

<u>Picture 3</u> I must use 3 scoops of water to flush the latrine.

<u>Picture 4</u> I must wash my hands before leaving the latrine.

Care of the latrine 1. The latrines need to be checked every day to make sure there is enough water in the water jar in the latrine for flushing the latrine and washing hands.

2. The floor of the latrine needs to be cleaned on school cleaning

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days or more often if necessary.

3. It is your role as students to make sure that the latrine is used properly and well maintained. If the latrine gets too dirty no one will want to use it.

Show the students the poster about care of the latrines.

Show the students the happy rainwater jar poster.

The Giant Rainwater jar Do you remember that you learnt in an earlier lesson that well stored and well used rain water is clean and safe to drink?

Can you remember what illnesses you can get if you drink dirty (unsafe) water? The answers should be diarrhoea,dysentery,cholera,typhoid.

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Show the students the happy rainwater jar poster.

The giant jar can hold 2000 liters of rainwater. This means that when it is full it is very heavy. That is why it has been placed on a stand to prevent it collapsing.

<u>The tap</u>

The tap is to make it easier for you to get water if you want a drink. All you have to do is place your cup or container under the tap and turn it on. You must always close the tap after use. Do not play with the tap because you could break it! The tap should be locked at the end of the school day. If you remember to do these things you will prevent the school's precious water from being spilled.

The drain plug

Have you noticed the drain plug which fits in the drain hole? The drain hole is there so that the jar can be completely emptied after cleaning. You must not play with the plug because if you remove it the jar will empty out and you wont have any water to drink.

<u>The mosquito screen</u>

Who knows what the mosquito screen is for?

The mosquito screen is to prevent mosquitoes from breeding in the jar. This will happen provided that it is tightly attached to the jar.

The cover

The concrete cover is heavy to lift.this is why it has a hole in it to let the rain pipe in. It does not have to be taken off when it is raining.

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<u>The rainqutter</u>

The raingutter is needed in order to catch the maximum of water that falls on the roof during a shower.

<u>The rainpipe</u>

Who knows what the rainpipe is for?

This is connected to the rainguitter and the water flows through this directly into the jar.

<u>Storage sediment pipe</u>

Does anyone know what the storage sediment pipe is for?

As the first shower after a dry period will wash all the dirt from the roof (bird droppings,dust,leaves) the water will get polluted. so to prevent this we have the sediment pipe. Before it starts raining the screw of the sediment pipe has to be taken off (your teachers will do this). The first rainwater along with the dirt will leak on the ground and after a few minutes the water that comes out will be clean. When you close the pipe with the screw, the clean rainwater will stream into the jar. In order to keep the water in the jar clean it is necessary to release the screw for moment just after the rain stops.

(At the end of the lesson the teacher should take the students out to see the rainwater jars and make sure that they know how to use them correctly).

Keeping the classroom clean

On school cleaning day you can help your teacher to keep the classroom clean by cleaning the floor, desks and chairs. If you do not have a empty box or bin in your classroom for the rubbish take it out to the white metal bin in the school yard, do not just throw it on the floor.

Keeping the school compound clean

It is important to keep the school clean, firstly because a dirty school creates a bad impression about the students and teachers. Secondly as you have already learnt dirt attracts flies, rats and other insects who spread diseases.

Show the students the poster of keeping the school compound clean.

How can we keep the school compound clean ?

The teacher should ask the students for their suggestions.

In order to keep the school compound clean we need to:

- throw garbage into the white bin and not on the ground. put the lid on the bin after use. Older students can show the younger students what to do.

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- when the white bins are full they need to be emptied into the garbage pit or the yellow garbage bins if there are any close to the school.
- the garbage needs to be covered with soil to prevent flies from breeding in the garbage.
- on school cleaning day any garbage lying around the school compound needs to be put into the white bins.
- Keep the school roof free of leaves, so that they don't get in the gutter and interfere with the rainwater flow into the rainwater jar.

How to protect the school well\hand pump if your school has one:

- don't throw rubbish in the well;
- keep the well covered when it is not in use;
- keep the platform around the well clean.

What other ideas do you have that would help keep your school a clean and healthy place to study in?

Did you know that your school has a school hygiene committee? You could tell them about your ideas to help keep your school a clean and healthy place to study in.

How about suggesting to your teacher or the school committee that every month the best hygiene student is selected from each class.

REMEMBER

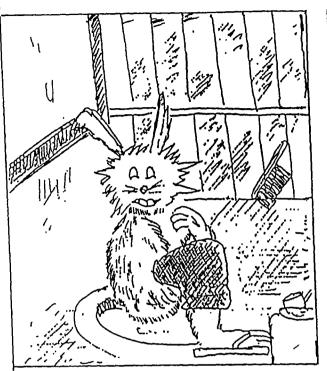
- * If you have a latrine at home it should be used and cleaned the . same way as the school latrine.
- * If you throw your garbage on the ground the flies, mice and rats will come and spread disease.

STUDENT'S ACTION

- * I will follow the rabbit rules about using the latrine.
- * I will show the younger students how to use the latrines.
- * I will throw the garbage in the white bin and put the lid on afterwards.

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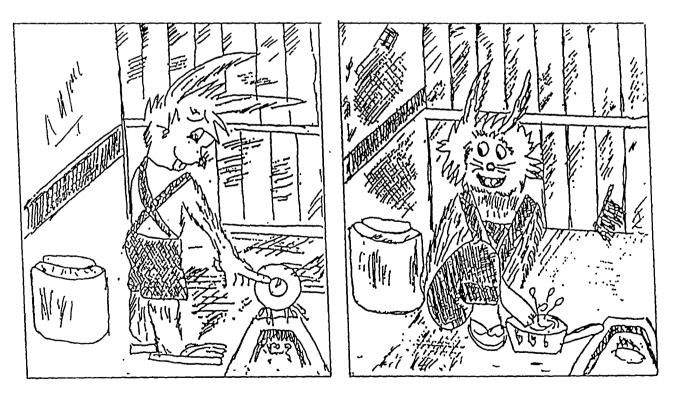
THE RABBIT POSTER



I must defecate in the hole of the latrine.

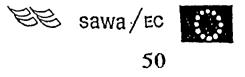


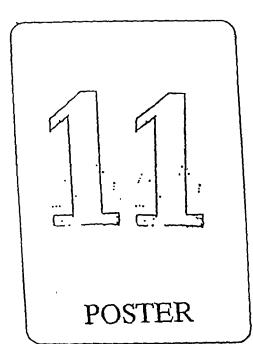
I must clean my bottom after defecation.



I must use 3 scoops of water to flush the latrine.

I must wash my hands before leaving the latrine.





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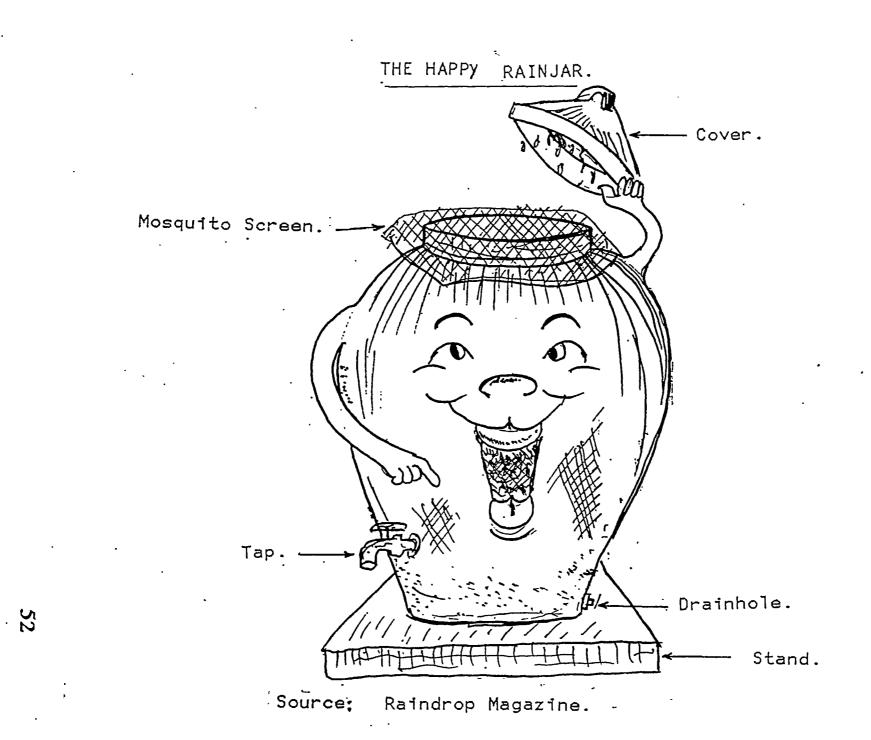
CARE OF THE LATRINE



POSTER

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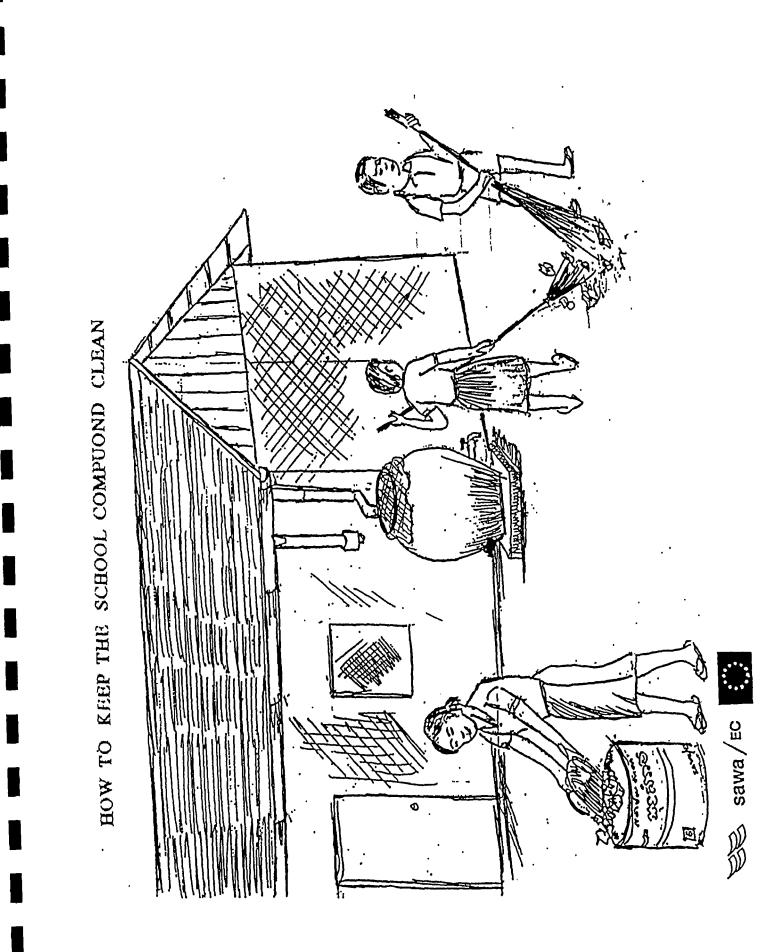
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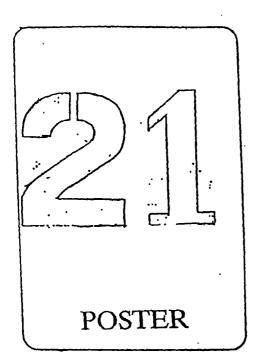
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LESSON 9

FOOD HYGIENE

Teaching methods : Discussion and storytelling.

Teaching aids : Poster on keeping food safe (no 22).

Learning objectives By the end of the lesson the students will know: (1) how food can get full of germs; (2) how to store food safely; (3) how to prepare food safely.

In the world today a lot of people get sick from eating food that is not clean. This means that the food contains germs.

Questions and discussion with the students.

Do you remember what germs are?

In this lesson you will be learning how you can protect food from dirt and germs.

How does food get full of germs?

Food becomes full of germs when it is :

- not cooked thoroughly;
- kept in a hot place;
- not fresh;
- touched by dirty hands or utensils;
- touched by animals, rats of flies.

Do you remember what type of worm you can get if meat is not cooked thoroughly?

The answer is hookworm

Safe storage of food. If the food is not stored carefully it can become contaminated by rats and insects.

How do you store the rice in your house? How do you protect it from rats? How do you protect the other foods in your house from rats and insects?

Safe preparation of food. It is important to prepare food in a hygienic way. Some of you probably help your mothers with the cooking at home! This is why you need to learn about safe preparation of food.

What can you do to prevent food becoming full of germs when it is

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being prepared?

You can do the following things :

- clean the surface you will prepare the food on. Using a brush or cloth that is only used to clean the inside of the house. Use plenty of water;
- lean the cooking utensils;
- wash and scrub hands and nails, using soap if it is available;
- wash fruit and vegetables before chopping. If you remember, you learnt in an earlier lesson that fruit and vegetables often carry roundworm eggs on them.
- cook the food well (particularly meat).

What must you do before eating food? Can anyone remember?

Before eating you must wash your hands, using soap if it is available. This is to remove the germs from your hands.

How should we keep food after it has been cooked.

1. Germs like warm food. Cooked food should be eaten as soon as possible after cooking so it does not have time to collect germs and cause illness.

2. If you are going to keep it for just a short time, cover it and put it in the shade (germs like warmth). Covering it will keep the flies and other insects away.

3. It is important to reheat any leftover food thoroughly before you eat it. Reheating it so that it boils will help kill some of the germs that will have started to grow in it.

Show the students the poster on keeping food safe.

Story to tell the students.

This is about a mother and her two daughters. The elder daughter is called Wanna and she is clean and the younger one's name is Teida and she is dirty. One day Teida takes some food from her elder sister who is eating. Wanna tells her that she must wash her hands before eating the food. Teida says that she has even though she has not.

That night Teida has a dream that germs come to attack her. They stick on to her hands and wont go away. It is easy for them to stick on to her hands because they are dirty. The germs tell Tieda that if she does not want them to attack her again she must wash her hands before eating the food. Tieda is scared of the germs and when she wakes up she decides that she will change her hand washing habits and always wash her hands before eating food.

REMEMBER

* Always wash your hands before eating.



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- * Always wash your hands before preparing or cooking food.
- * Cook food well (especially meat).
- * Cover food to protect it from flies and other animals.

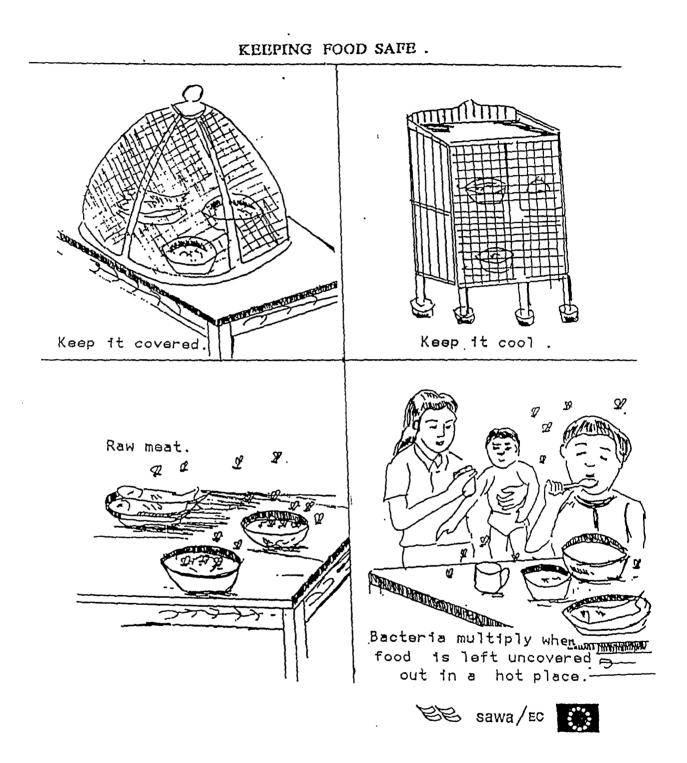
STUDENT'S ACTION

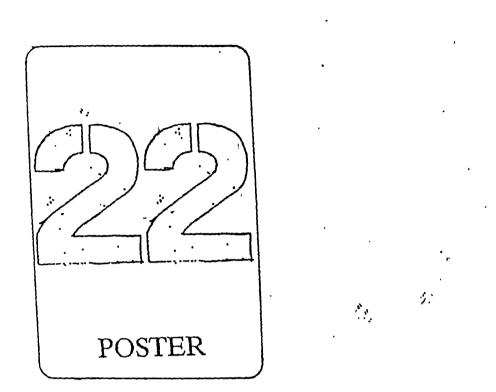
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I will tell my mother that is important that she cooks the meat well to prevent us from getting hookworm.

I will make sure that the food in my house is kept covered.

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LESSON 10

COMMUNITY HYGIENE : ANIMALS, INSECTS AND GARBAGE DISPOSAL

Teaching methods: Discussion with the students.

Teaching aids: Poster of the garbage pit (no 23). Poster to show how the chicken can spread diarrhoea (no 9). Poster to show the hiding place of rats and mice (24).

Learning objectives

By the end of the lesson the students will know:

- (1) the different of garbage that are to be found in the community;
- (2) how to dispose of garbage safely;
- (3) the dangers of litter;
- (4) how animals and insects spread disease;
- (5) what they, their family and their community can do to prevent the spread of disease by animals and insects.

In this lesson we are going to talk about hygiene in your village. We will also think about ways you can help to improve the standard of cleanliness in your village.

Questions and discussion with the students.

Garbage disposal

Safe disposal of garbage is very important. Accumulated garbage can provide breeding places for rats,mice,flies,cockroaches and other . insects. All of which can spread disease.

What different types of garbage are there in your community?

The different types of garbage you would expect to find in your community would include:

- waste food;
- vegetable matter (stalks,leaves,peelings);
- paper;
- cardboard;
- tins;
- rags;
- bottles (glass and plastic):

How do people dispose of the different types of garbage in your village?

The easiest way to dispose of garbage is to bury it in a pit in the ground which is far away from the houses. Each time the garbage is thrown in the pit should be covered with soil.

Show the children the picture of the garbage pit.

Have you seen a pit like that in your village?

Do you have a pit like that at your school?

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Pursat town garbage collection Pursat town now has a garbage collection service. Have you seen the yellow garbage bins around the town?

Do you know how to use the garbage bins correctly? You should put your garbage in the bin and then put the lid on the bin afterwards. Maybe you have seen the big yellow garbage truck which goes around town each day to collect the garbage from these bins? The garbage truck takes the garbage to a very big pit outside of town.

The dangers of Litter

- If you leave garbage lying on the ground it:
- makes the village dirty and smelly;
- attracts rats, flies and mice and as we mentioned earlier they can spread disease;
- garbage is left near a stream, pond or well there is a danger then it will pollute the water.
- puts children playing there at the risk of cutting themselves.

It is a good idea to feed edible waste to the pigs as it then prevents it lying around.

Animals Animals such as chickens, pigs and dogs can spread disease.

Show the children the poster with the chicken showing how diarrhoea is spread.

If you remember in an earlier lesson we talked about Tieda who had diarrhoea. The chicken walked in the dirt where Tieda had passed stools and then it stepped on the food. The family then eat the food and all ended up with diarrhoea.

Animals can also carry infection in their fur (such as fleas). They can also pollute wells and water sources with their tongues when they drink. They can pollute streams and rivers if they defecate near them or in them.

How do animals spread disease? They spread disease by carrying germs on their paws, on their tongue, in their fur and in their stools.

What can you do to prevent animals spreading disease? The teacher should ask the students to mention their ideas.

You, your family and your community can help to prevent animals spreading disease by:

- trying to keep animals out of the house;
- try to prevent children playing under the house if the pigs live there;
- fence off wells so that the animals cant get in and contaminate the water.

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Rats and mice All living things need food and water in order to survive. Rats and mice also like to have somewhere warm and dark to hide.

Can you think of places where rats and mice might be found?

Show the students the poster of the hiding places of rats and mice.

Rats and mice are a nuisance because they:

- carry germs on their skin and in their stools which can contaminate food and cause diarrhoea and other illnesses;
- eat food that is needed for humans, rice, fruit and vegetables;
- destroy woodwork;
- can bite children and adults;
- can kill young chickens.

What can you, your family and your community do to keep the rats and mice away?

The teacher should ask the students to mention their ideas.

To keep the rats and mice away you, your family and your community can:

- seal holes in wall, floors and roofs;
- clear away undergrowth near houses to prevent possible outdoor breeding places;
- warm nooks and crannies indoors should be kept very clean to prevent possible indoor breeding;
- garbage should be thrown into the garbage bin or garbage pit and not left on the ground;
- garbage bins like the yellow bins in Pursat and the white school bins should be covered and emptied regularly;
- rice stores should be inspected regularly and repaired at the first sign of damage.

Flies

Flies may be very small but they can cause a lot of harm by spreading disease spreading diseases such as diarrhoea, vomiting and dysentery. They like to breed in warm places like garbage tips, in stools that aren't covered. They feed on things like stools, garbage and food.

How do flies carry germs? Flies carry germs on the fine hairs of their bodies, on their feet and in their stools. They walk in stools and then land with their dirty feet on your food.

How can we stop the flies coming? The teacher should ask the students to mention their ideas.

We can stop the flies coming by:

- keeping food covered;
- keeping latrines clean;
- if there is no latrine burying it;

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- burying rubbish with a layer of soil or putting it in a bin with a well fitting lid;

REMEMBER

- * Garbage should be put in the garbage bin or garbage pit and not thrown on the ground.
- * Keep animals out of the house.
- * Keep animals away from the well.
- * Keep food covered to protect it from the flies.

STUDENT'S ACTION I will try to make my village a cleaner place by not throwing garbage on the ground.

I will tell my family and neighbours what I learnt in the lesson about disposal of garbage and preventing the spread of disease.

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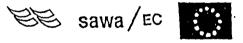


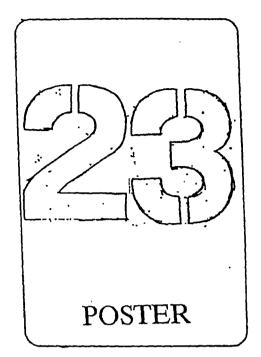
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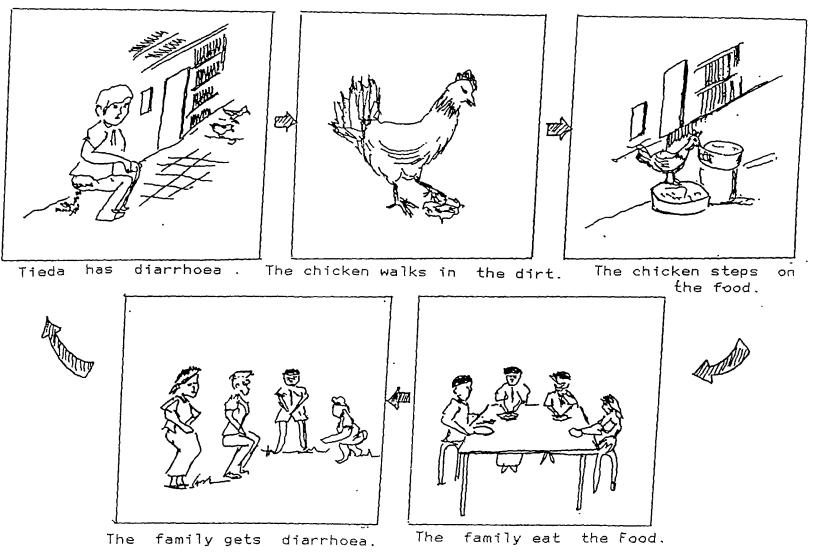
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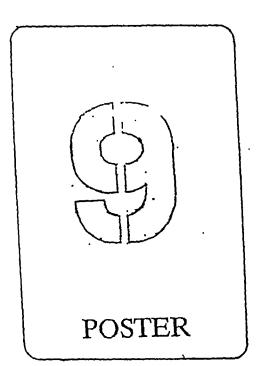






HOW DIRRHOEA IS SPREAD.

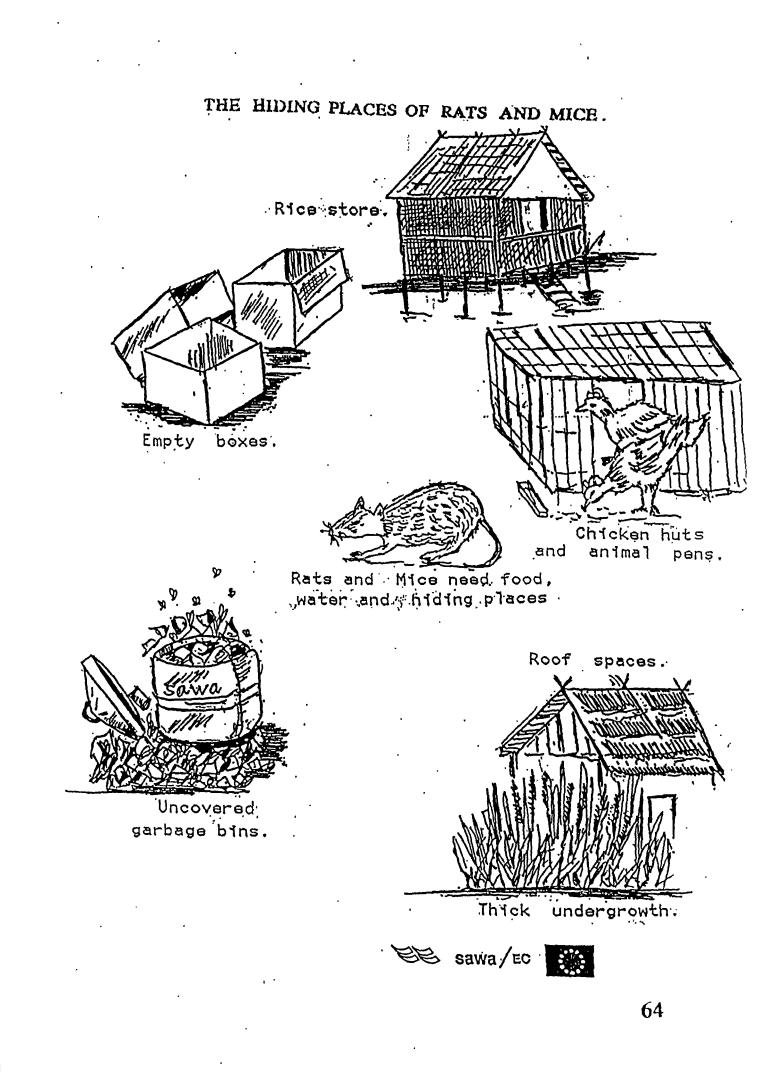




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LESSON 11

THINKING ABOUT MY COMMUNITY

Teaching methods : Discussion with the students.

Teaching aids: Poster of the village with bad community hygiene (no 25). Poster of the bad kitchen (no 26). Poster of the village health map (no 27).

Learning objectives

By the end of the lesson the students will know:

- (1) how they can help improve the standard of cleanliness in their home;
- (2) how they can help to improve the standard of hygiene in their village.

In this lesson we will be again talking about hygiene in your village as we did in lesson 10. We will think about how you can help to improve the standard of cleanliness in your village and therefore help to reduce the amount of sickness.

Questions and discussion with the students.

Show the students the poster of the village with bad community hygiene.

Ask the students to look at the picture and to tell you all the bad habits that they see.

The bad habits include:

- garbage littered on the ground, which will provide breeding places for rats, flies, mice who can then spread disease.
- animals drinking the river water, which can then get polluted by the germs carried on their tongues and paws and also by their stools if they defecate in or near the river.
- people defecating in or near the river which will pollute the water even more.
- women collecting water to drink from the river which is now polluted so the water is unsafe drinking water unless it is boiled for 15 minutes.

Ask the students if people have the same bad habits in their villages?

STUDENT'S ACTION Now lets think about what you as students can do to make your villages cleaner and safer places to live.

Thinking about my home

Lets think about what you can do to improve the standard of hygiene in your home.

Show the students the picture of the bad kitchen.

Ask the students to point out all the bad things and explain why they are bad.

The bad things include:

- thefood on the table not being covered, so it is covered in flies which can spread disease;
- the dog defecating on the floor and spreading germs in it's stools;
- the baby playing on the floor near the animals and running the risk of getting a disease from the animals;
- the chicken drinking the water from the bowl that the spoons and dishes are in, therefore contaminating them;
- the drinking water container not being covered, so the water can get contaminated;
- garbage being thrown outside the house instead of into a garbage pit, thereby encouraging flies, mice and rats which can spread disease.

Is your kitchen like this?

What can you do to improve the hygiene standards in your kitchen?

Thinking about my village Now we will talk about what you can do to improve the hygiene standards in your village.

Village Health Map

This is one thing that you could do. The idea is that you make a map of your village identifying the following:

- latrines;
- water sources (wells, streams, ponds, rivers);
- food stalls;
- market if there is one;
- places where rubbish is dumped;
- school;
- your house;
- any areas with high grass;
- village clinic if there is one.

After you have drawn the map you will need to think about things that you can do to improve the hygiene standards of your village. For example you may think the well needs a fence or a garbage pit needs to be dug. Maybe a group of you could go to speak to the Headman about this, showing him your map and telling him what you learnt in school about community hygiene.

Show the students the example of the village health map.

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The students will need to carry out this exercise when they go home from school.

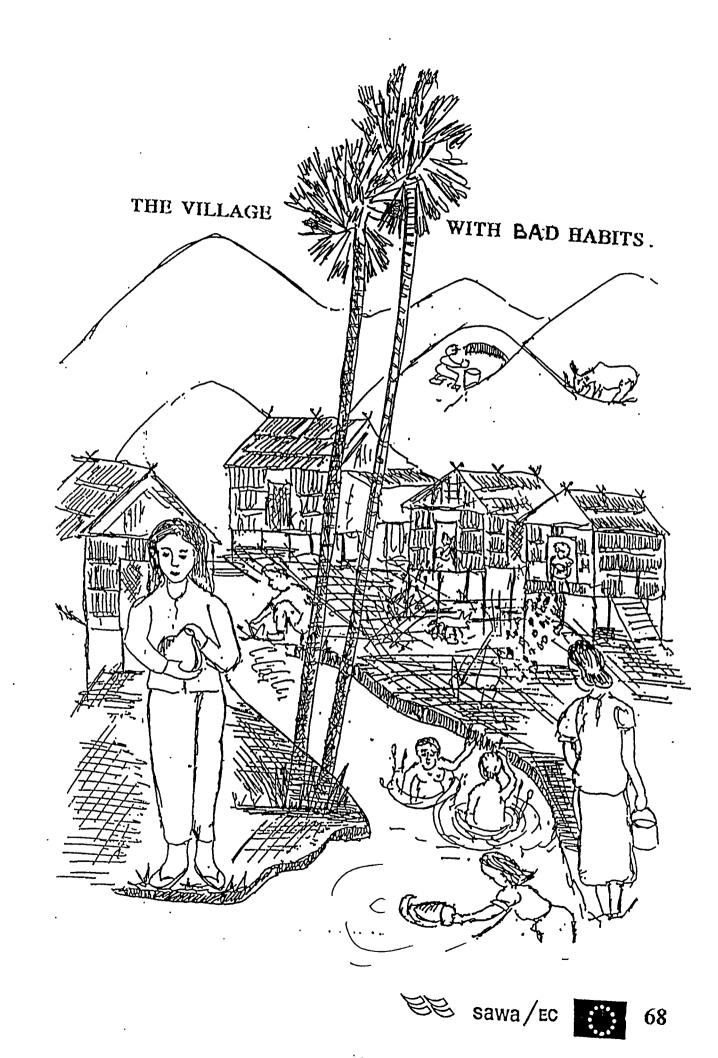
Note for the teachers

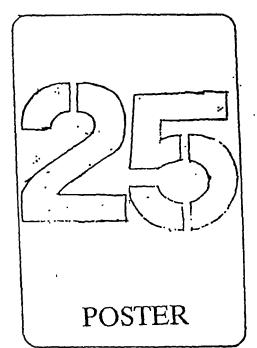
The older students could do this map on their own and the younger students could ask their older brothers and sisters to help them. This could also be done as a group exercise, a few students from the same village getting together and doing the map together.

What else can the students do to improve the hygiene standards in their village?

You can tell your family and neighbours what you learnt in the hygiene lessons at school. The older students can make up hygiene stories to tell their younger brothers and sisters.

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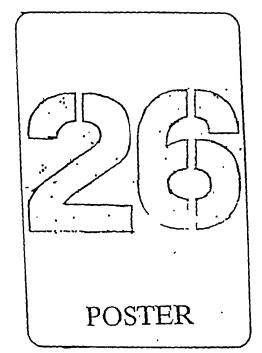
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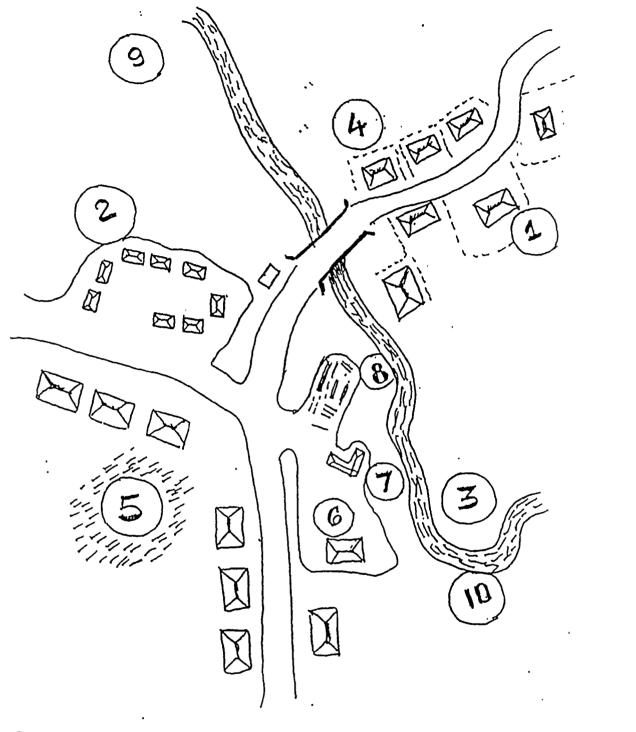
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THE VILLAGE HEALTH MAP.

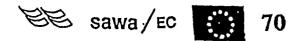


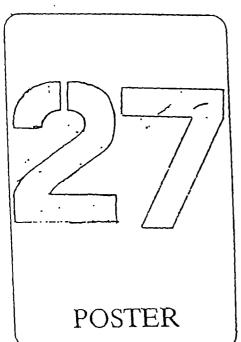
- 6 School Sweep classrooms.
- (7) Kitchen Kill flies.
- (8) School garden Grow vegetables.
- (9) Well Keep covered.
- (0) Big heap of garbage.

(1) My house - Keep animals out of the house.

in it.

- 2 Market Keep clean.
- (3) River Dont throw garbage
- 👍 Well Fence off.
- (5) High grass Cut down.





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APPENDIX 1: REFERENCES FOR PICTURES IN THE CURRICULUM

Bradford B. (1992) Focus on Thailand Raindrop, 7, p11.

Institute of Education. (undated) Child To child London.

Werner D. (1979) Where There Is No Doctor London: Macmillan.

Williams T, Moon A, Williams M. (1990) <u>Food, Enviroment And Health.</u> <u>A Guide For Primary School Teachers</u> WHO.

Young B , Durston S. (1987) <u>Primary Health Education</u> Harlow Essex: Longman Education Texts.

APPENDIX 2: LIST OF POSTERS THAT ACCOMPANY THE CURRICULUM Lesson Poster to show how germs are spread (1) <u>Lesson 2</u> Poster about cleaning our teeth (3) Lesson 3 Poster on water uses (4) Poster to show how water can become dirty (5) <u>Lesson 4</u> Picture of a dehydrated baby (6) Poster of how to make up oral rehydration solution (7) Poster to show illnesses caused by lack of water for washing (8) Lesson 5 Posters to show how diarrhoea is spread (9 and 10) Rabbit poster (11) Lesson 6 Poster showing different types of worms (12) Poster showing how worms are spread (13) Poster showing the lifecycle of the roundworm (14) Poster showing how hookworm are spread (15) Poster showing lifecycle of the tape worm (16) Lesson 7 Poster to show how malaria is spread (17) Poster to show how to prevent malaria (18) Poster to show how dengue fever is spread (2) <u>Lesson 8</u> Rabbit poster (11) Poster of care of latrines (19) Poster of the happy rainjar (20) Poster to show how to keep the school compound clean (21) Lesson 9 Poster on keeping food safe (22) <u>Lesson 10</u> Poster of the garbage pit (23) Poster to show how the chicken can spread diarrhoea (9) Poster to show the hiding place of rats and mice (24) <u>Lesson 11</u> Poster of village with bad habits (25) Picture of the bad kitchen (26) Picture of the village health map (27) 72

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