

Urbani School Health Kit
TEACHER'S RESOURCE BOOK

A Clean Environment and a Healthy Me

A Campaign on Clean Environment
for Health Promoting Schools



Urbani
School Health Kit



World Health
Organization

Western Pacific Region

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Objectives

After the lessons, schoolchildren **ages 5 to 9** will be able to:

- Describe a clean and healthy environment
- Explain the benefits of maintaining a clean and healthy environment
- Describe how germs in the environment cause disease
- Demonstrate good practices in maintaining a clean and healthy environment
- Share experiences in keeping the environment clean and healthy

In addition, schoolchildren **ages 10 to 12** will be able to:

- Draw and label the factors that cause infectious diseases: host, agent and environment
- List ways of ensuring food safety and clean water
- Demonstrate waste segregation and recycling

Key Messages

For ages 5 to 9

- A clean and healthy environment has: (a) safe food and water supply, (b) proper waste disposal, (c) clean air, (d) no pests such as flies, cockroaches and mosquitoes
- Maintaining a clean environment helps keep diseases away and fosters growth and development of children.
- Many disease-causing germs can be found in

dirty environments.

- Disease-causing germs enter the body via different routes: (a) through the mouth: when eating with dirty fingers or eating contaminated food or drinking water; (b) through the skin: direct skin contact or insect bites.
- Ways of keeping the environment clean and healthy include: (a) ensuring safe food and water supply, and (b) properly disposing of waste.

In addition, for **ages 10 to 12**

- Illnesses such as diarrhoea are spread through unhygienic practices and dirty environment.
- Five Keys to Safer Food:
 1. Keep clean.
 2. Separate raw and cooked food.
 3. Cook thoroughly.
 4. Keep food at safe temperatures.
 5. Use safe water and raw materials.
- Practice waste segregation and recycling.

Activities

For ages 5 to 9

- Words and Pictures
- Story telling
- Poster-making
- Demonstration: handwashing
- Demonstration: waste segregation
- Indoor Activity: cleaning the room and its surroundings

For ages 10 to 12

- Poster-making
- Demonstration: handwashing
- Demonstration: waste segregation
- Indoor Activity: cleaning the room and its surroundings
- Investigative report
- Survey on keeping the environment clean

Materials/Resources

For ages 5 to 9

- Pictures and flash cards
- Drawing boards and paper
- Board game and sets of questions for the game

For ages 10 to 12

- Pictures and flash cards
- Drawing boards and paper
- Board game and sets of questions for the game
- Survey checklist
- Survey chart

Keeping the environment clean is important to being healthy. Many disease-causing germs exist in dirty environments, such as the ones that cause diarrhoea and worm infections. This means that many diseases can be prevented through good personal hygiene, and by keeping the environment clean.

A healthy environment means:

- safe food and water
- clean surroundings
- clean air

Many disease-causing germs can be found in a dirty environment.

Food and water may be contaminated in several ways:

- Food and drinking water may be contaminated at the source. For example, if a toilet is built close to a well or a vegetable garden, human waste might contaminate the food and water.
- People who are already sick may spread disease if they improperly handle food or contaminate water supplies.
- Houseflies and cockroaches may carry germs and spread these over food and water they come in contact with.

A dusty environment can be dangerous to children who have allergies. House dust mites are insect-like creatures that are invisible to the naked eye. When they are present in the environment, some children develop a runny nose (rhinitis), or cough. Children with asthma might have an attack.

Disease-causing germs enter the body through different routes:

Through the mouth

- Eating with dirty fingers

Eating with dirty fingers is the most common way for germs to enter the body. Children, most especially, are fond of playing in the dirt and

What should children know about maintaining a healthy environment?

5 Keys to Safer Food

1. **Keep food clean.**
2. **Separate raw and cooked food.**
3. **Cook thoroughly.**
4. **Keep food at safe temperatures.**
5. **Use safe water and raw materials.**

Poster-making: 5 Keys

Form small groups then ask the children to make posters about food safety. Focus on "keys" as a unifying image for this activity.



forgetting to wash their hands before eating. The germs enter the mouth without being detected.

- Eating contaminated food or drinking dirty water

Food and water that are not collected, prepared or stored well may contain germs that cause diseases. Germs multiply fast, especially when in warm, moist environments. The more germs that enter the body, the greater the chance of getting sick.

Through the skin

- Direct skin contact

Some germs cause disease through direct skin contact. Examples are fungi that cause skin diseases or worms that enter bare feet.



Through the lungs

- Air-borne causes of disease

Colds and cough are caused by viruses that are inhaled and lodge in the airways. House dust mites, fungi and molds can also be inhaled and cause allergic reactions ranging from a runny nose to an asthma attack.

A clean environment begins with you.

- Always practice good personal hygiene, especially hand washing after defecating and before preparing or eating food

Good personal hygiene and proper hand washing help prevent diseases. Many disease-causing germs enter the body when personal hygiene is poor or when hands are dirty. Germs can be easily washed away with soap and water. This is a practice that should always be observed after using the toilet and before preparing or eating food.



- Maintain clean, safe food and water supplies

Food and water supplies can be easily contaminated by disease-causing germs. Here are some ways to prevent contamination:

- ▶ Washing vegetables thoroughly before cooking
- ▶ Washing hands before preparing food
- ▶ Separating raw and cooked food
- ▶ Using only clean and safe water and other materials when cooking
- ▶ Cooking food thoroughly
- ▶ Covering food and water supplies so that flies and other insects do not contaminate them
- ▶ Keeping food hot before serving, or cold when storing
- ▶ Making sure that vegetable gardens and water supplies are not near possible sources of contaminated faeces

- Practice proper waste disposal

Garbage can be a breeding place for germs. These germs can be spread by insects and other animals. Old containers (like pots or cans) may collect rain, and thus serve as breeding places for disease-causing mosquitoes.



Waste from toilets should be properly disposed of so that animals and insects are kept away from faeces. Toilets should be kept clean and provided with soap and water to encourage hand washing after use.

- Maintain adequate ventilation and keep the air clean

Adequate ventilation prevents growth of disease-causing germs. Smokers should not smoke indoors, and definitely not in the presence of children. (Read more about this in the campaign on Tobacco Control: "A Tobacco-free and Healthy Me")



Children should know not only why they should help keep the environment clean, but also how they can do their share. They should develop healthy habits early in order to prevent disease.

Children should be able to demonstrate the following skills:

- Describing a clean and healthy environment
- Explaining how germs cause disease
- Practicing good personal hygiene
- Keeping food and water supplies safe
- Practicing proper waste disposal
- Cleaning the surroundings

What skills should children learn in keeping the environment clean?



1. Describing a clean and healthy environment

Children should be able to describe a clean and healthy environment.

Words and Pictures: What is a clean and healthy environment? (for younger children)

Show the children two pictures of the environment: one is clean, the other is dirty. Ask the children to describe each picture in detail. Write their words on the board.

Clean Environment



Dirty Environment



Ask them to describe the child in the pictures. Ask them how a dirty environment could cause illness. Just as importantly, have them describe why health is associated with a clean environment.

2. Explaining how germs cause disease

Children should be able to explain how germs cause disease. By doing so, they realize that they can prevent disease by keeping themselves and their environment clean. Ask them to make up a story about a child who gets sick because of a dirty environment.

Story telling: How germs can cause diseases (for younger children)

Use the picture of child in a dirty environment (previous activity) to tell a story about disease-causing germs. For example, germs causing diarrhoea and worm infections.

After the story telling, ask the children the following questions:

- Why is the child sick?
- How did the disease-causing germs get into his body?
- What should the child do to avoid getting sick in the future?

Ask the children to draw themselves in their own environment at home. Ask them to show whether they are happy, healthy and active, or sad and sickly. Then ask them to tell their own story.

Poster-making: How germs are spread (for older children)

Divide the children into two teams. Ask each group to make a poster on how diseases are spread to humans. Emphasize in the posters the kind of environment where these diseases thrive.

After the activity, ask the children the following questions:

- How are diseases commonly spread among children?
- How can we prevent the spread of these diseases?





3. Practicing good personal hygiene

Good personal hygiene and proper hand washing are very important practices in preventing disease-causing germs from spreading.

Demonstration: Proper handwashing

Ask the children to demonstrate proper hand washing (see the hand washing demonstration activity in the personal hygiene campaign: “A Clean and Healthy Me”)

Observe and guide them as they do the following steps:

1. Wet your hands and wrists with water.
2. Put some soap on your hands and rub hands together palm-to-palm.
3. Then rub hands with right palm over the left hand, then left palm over the right hand.
4. Wash between your fingers and under your nails.
5. Make a loose fist then rub the backs of the fingers.
6. Grasp the left thumb with the right hand and rub some more. Then use the left hand to clean the right thumb.
7. Clean the tips of your fingers by rubbing them against the palm of the other hand.
8. Rinse hands thoroughly under a stream of water.
9. Dry hands completely with a clean cloth or dry paper towel.
10. Ideally, you should use a paper towel to turn the faucet off. Avoid touching the sink.

Wash hands for about 15 to 20 seconds. Try singing a song like “Happy Birthday” as you wash your hands.

4. Keeping food and water supplies safe

Children often already have a basic understanding of “germs” in food and water. Help them articulate their ideas through artwork.

Poster-making: Keeping food and water supplies safe and clean

Ask the children to make posters on how food and water supply should be protected. Let the children be guided by the following concepts:

- how water supply should be kept clean and safe
- how food should be stored and handled
- how food should be prepared and cooked
- how food should be packed and served

You might want to try using paper plates or water bottles as drawing boards. Aside from coloring materials, the children can also use magazine cutouts. Encourage the children to make a slogan for their posters. Keep the posters for a future school fair or exhibit.

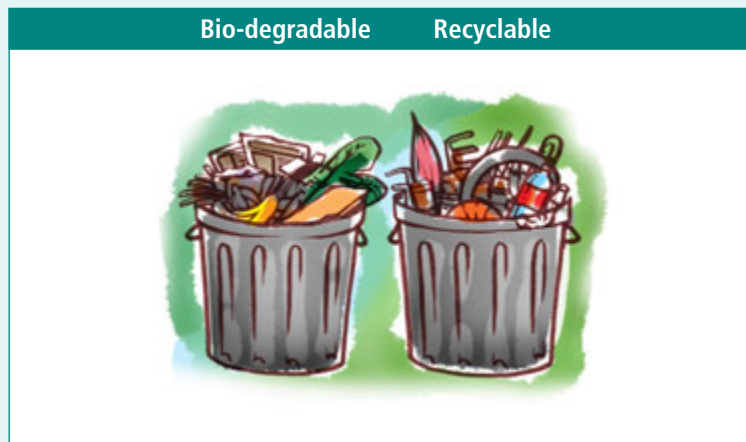


5. Practicing proper waste disposal

Teach children how to segregate waste into biodegradable and recyclable materials.

Demonstration: Waste segregation

Bring some pictures of waste materials (or actual waste like cans and paper). Next, prepare two trash bins and label these as shown:



Ask the children where each waste material should go: into the bio-degradable bin, or the recyclable bin.

After the activity, ask the children the following questions:

- What are the reasons for segregating wastes into bio-degradable and recyclable?
- What could be done with wastes that are thrown in the bio-degradable bin?
- What could be done with wastes that are thrown in the recyclable bin?

6. Cleaning the surroundings

Indoor Activity: 5-minute clean up

Ask the children to clean the room and its surroundings in 5 minutes.

Next, ask them to look out the window or door and think about what aspects of their surroundings should be cleaned up. Ask them:

- What did you clean and why?
- What areas of the school should be cleaned up?
- Do you help in cleaning your bedroom? Your home?
- What areas of your home should be cleaned up?
- Why do you want your surroundings to be clean?

Anticipate different answers. Encourage the school children to make a connection between disease-causing germs and a dirty environment.



Putting It All Together



It is always important to ensure that the school environment supports every health campaign. The school should provide proper facilities for hand washing, safe food and water supply, clean toilets, and garbage cans for proper waste disposal.

Use the following checklist adapted from: FRESH Tools for Effective School Health (<http://www.unesco.org/education/fresh>)

1. General:

1.1 What are the main health problems in the community?

1.2 Which of these are most prevalent among students/staff in the school?

1.3 Have linkages been made with non-education sector experts to address water, sanitation and health education issues within the school?

___ Yes With whom? _____

___ No Who could be contacted? _____

2. Water:

2.1 Where does the school's supply of water come from?

Ground water (dug well, borehole, spring)

2.1.a Is the well clean? ___Yes ___No

Rainwater collection

2.1.b Is the storage container clean? ___Yes ___No

2.1.c Is the water treated? ___Yes ___No

Surface water (rivers, lakes)

Without treatment this is a major health hazard.

2.2 What is the water quality? _____

2.3 Who tests it? _____

- 2.4 How often? _____
- 2.5 Is treatment necessary? ___Yes ___No
- 2.5.a Is it being implemented? ___Yes ___No
- 2.5.b How often? _____
- 2.6 Is the water sufficient? ___Yes ___No
- 2.7 Is water available all of the time
at the school? ___Yes ___No
- 2.8 What is the level of the groundwater? _____
- 2.9 Does the amount of water available change throughout the
school year (i.e., dry season/rainy season)? ___Yes ___No

3. Sanitation

- 3.1 What are the present practices of defecation?
- _____
- _____
- 3.2 Are the toilets sufficient for the number of teachers and students?
For girls: 1 toilet cubicle for every 25? ___Yes ___No
For boys: 1 urinal for every 40 to 60;
and 1 toilet cubicle for every 100? ___Yes ___No
- 3.3 Are people familiar with the construction
and use of toilets? ___Yes ___No
- 3.4 What types of toilets are available?
- Open defecation is not acceptable**
- Pit latrine
- 3.4.a Is there a cover for the latrine? ___Yes ___No
- 3.4.b Is wood ash or dirt provided
to prevent flies? ___Yes ___No
- VIP (Ventilated Improved Pit) toilet
- Flush Toilet
- 3.5 Are toilets at least 30 metres from
any drinking water source? ___Yes ___No
- 3.6 Are toilets suitable for both younger
and older students? ___Yes ___No
- 3.7 Are there separate toilet facilities for male



- and female students and teachers? ___Yes ___No
- 3.8 Are the toilets accessible to persons with disability? ___Yes ___No
- 3.9 Are hand-washing facilities with soap available? ___Yes ___No
- 3.10 Are toilets clean? ___Yes ___No
- 3.11 Are they cleaned regularly? ___Yes ___No
- 3.12 By whom? _____
- 3.13 What do students or teachers use for cleaning themselves?

- 3.14 Is this readily available? ___Yes ___No
- 3.15 Are there signs in the latrines encouraging good hygiene? ___Yes ___No
- 3.16 Is health education included in the school curriculum? ___Yes ___No
- 3.16.a Is health a separate class? ___Yes ___No
- 3.16.b Is health taught in one or more carrier subjects? ___Yes ___No
- 3.16.c Which subjects? _____
- 3.17 Are students' hygiene behaviours monitored or evaluated? ___Yes ___No
- 3.17.a How and by whom?

4. Solid Waste Disposal

- 4.1 Where does the rubbish or trash go?
- Burned and buried on the school compound
- 4.1.a What is the relation of the rubbish pit to the water source?

- 4.1.b Is the rubbish pit at least 100 metres from the school? ___Yes ___No
- Taken off the school site

5. Vector-borne diseases

5.1 What vector-borne diseases are present in the community?

Mosquito-borne diseases?

Which ones? _____

Rodent (mice/rat)-borne diseases?

Which ones? _____

Fly-borne diseases?

Which ones? _____

5.2 What steps have been taken to prevent vector-borne diseases from spreading?

5.3 Is the school compound clean? ___Yes ___No

5.4 Is the grass slashed to keep down insects
and mosquitoes, and reduce the risk of fire? ___Yes ___No

5.5 Are there any areas where stagnant water can
act as a breeding ground for mosquitoes? ___Yes ___No

Can these be removed? ___Yes ___No

5.6 What cleaning materials are available?

Brooms

Water buckets

Shovels

Grass slashers/Machetes

Other _____

5.7 What materials are needed?

If you find that the school canteen has inadequate waste disposal facilities, talk to school administrators about making improvements. You can then document actions taken in an exhibit (see the Learning Activity on “Exhibit: School Environment Improvements”).

Exhibit: School Environment Improvements

Launch a school-wide campaign to improve the environment in the school. Children can take photos or draw what they see.

It is important to show “before” and “after” images. The focus is not on criticizing inadequate facilities, but in finding ways to improve these.

School Fair

“A Clean Environment and a Healthy Me” can be the theme of a school fair. Set up three booths/stations/classrooms that showcase the following:

- What are some of the disease-causing germs in our environment? (Show their life cycles too.)
- What are the ways of preventing the spread of disease-causing germs?
- What can we do to keep our environment clean?

This is also an opportunity to exhibit the drawings, posters and other work that the school children prepared in the other activities.

What **attitude** should children develop in keeping a clean environment?

Keeping the environment clean is just as important as maintaining good personal hygiene. The environment is the extension of one's body. Children should develop respect for the environment as well as an appreciation for keeping it clean and healthy. They must also realize that keeping the environment clean is everybody's responsibility.



- Keep the environment clean to keep diseases away.
- Clean food is healthy food.
- Clean water is healthy water.
- Practice the five keys to safer food:
 1. Keep food clean
 2. Separate raw from cooked food.
 3. Cook thoroughly.
 4. Keep food at safe temperatures.
 5. Use safe water and raw materials.
- Take a bath everyday and wash hands frequently, especially before eating.
- Dispose of waste properly.
- Practice waste segregation and recycling.

