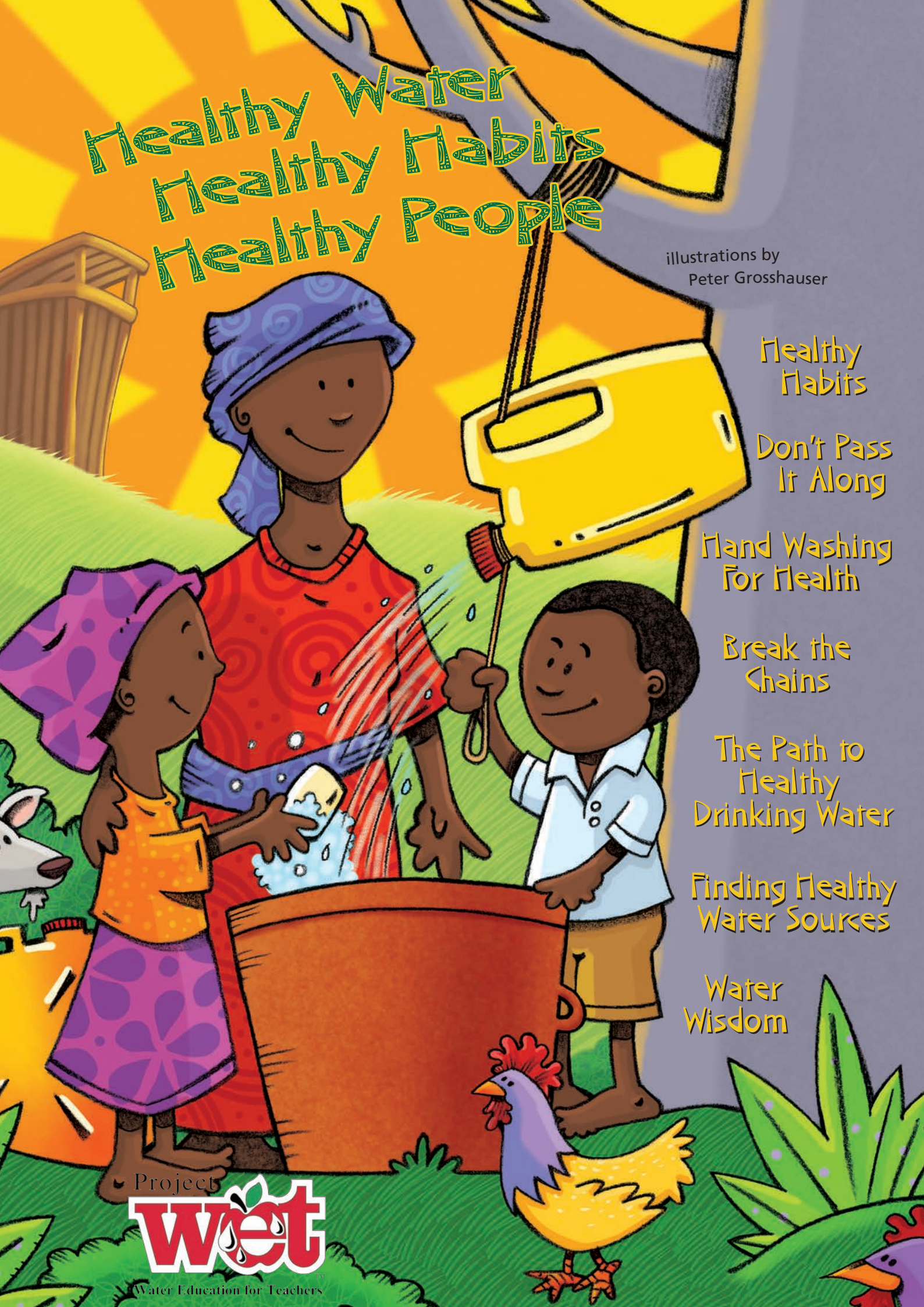


Healthy Water Healthy Habits Healthy People

illustrations by
Peter Grosshauser



Healthy Habits

Don't Pass It Along

Hand Washing For Health

Break the Chains

The Path to Healthy Drinking Water

Finding Healthy Water Sources

Water Wisdom

Project
wet

Water Education for Teachers

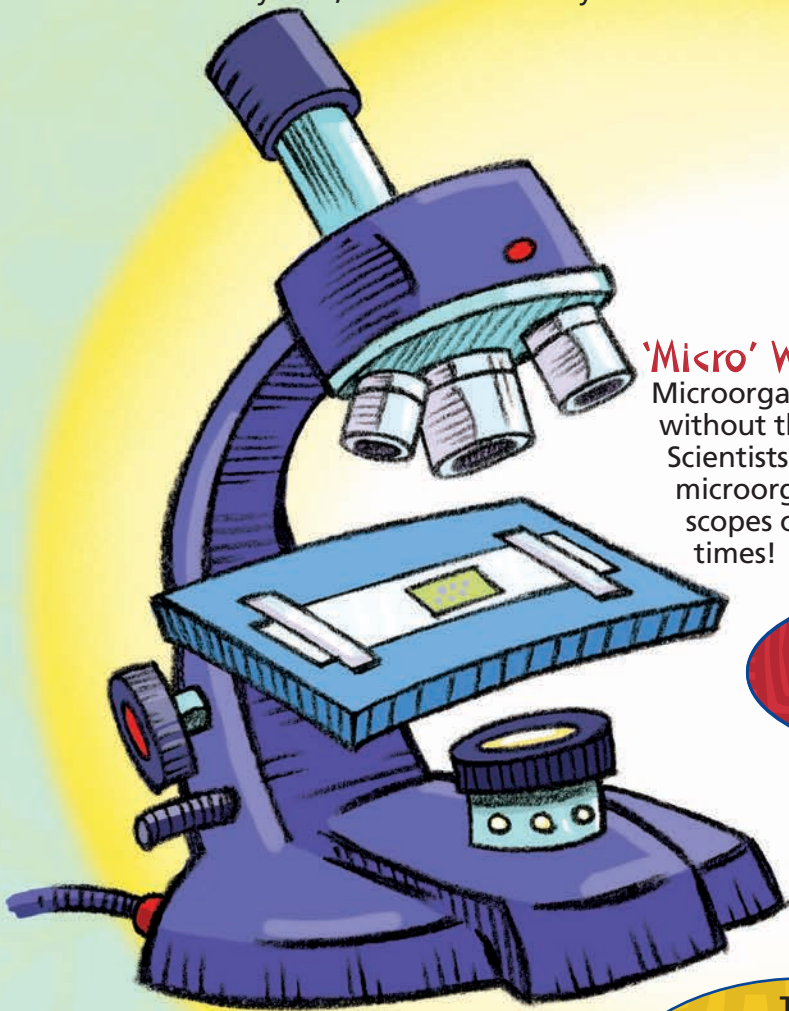
Healthy Habits

There are germs both healthy and unhealthy, all around us and inside our bodies. These germs, also called microorganisms, are invisible to us. They can only be seen through a microscope.

Some germs cause disease. These disease-causing germs can get into our bodies when we drink contaminated water, eat contaminated food or can be passed along to us from other animals such as insects and worms. Our body's immune system, our natural ability

to fight disease, can destroy germs that are harmful to our health. When germs multiply in our bodies, they can make us feel ill. Learning about diseases can help you prevent illness in yourself, your family and your community.

Practicing healthy habits helps you avoid exposure to microorganisms that can make you feel sick. On the following page, match the pictures of healthy habits with their descriptions.



'Micro' World

Microorganisms cannot be seen without the help of a microscope. Scientists use microscopes to view microorganisms. Modern microscopes can magnify up to 100,000 times!

Microorganism
Micro = extremely small
Organism = living thing

This is Fred. He stands 1.5 meters tall. If Fred were magnified 100,000 times, he would appear 150 kilometers tall!



The female *Anopheles* mosquito is the only kind of mosquito that carries the malaria parasite. She only feeds at night.



Activity: Match each description with its illustration.

Hey, It's Hot in Here!

Boiling water kills germs. Make sure your water is boiling for at least three minutes before you use it.



You're Busted!

Your immune system is made up of cells that fight germs. Drinking lots of clean water, eating healthy food and getting plenty of sleep are healthy habits that keep you strong.



All Washed Up!

Vigorously washing your hands with soap and clean water is one of the best and simplest ways to prevent disease. Soap contains molecules that grab onto the dirt and germs stuck to your hands, allowing clean water to rinse germs and dirt away.



Malaria and Water — Making the connection

What do malaria and water have in common?

Malaria is a disease caused by a parasite that is transmitted to humans through a type of mosquito that likes to feed at night. This **parasite** is a microscopic animal that depends on humans to complete its life cycle. Only female mosquitoes bite, and the only kind that carries malaria is the *Anopheles* mosquito.

Water is a critical part of her life cycle because she lays eggs in pools of **stagnant** (not moving) water. For this reason, it is important to remove stagnant water from around your home and to cover your household water source.

Follow the mosquito through the pages in the book to learn more about malaria and how you can prevent it.



At night, an *Anopheles* mosquito bites and infects you with the malaria parasite. She bites you in order to make a meal of your blood to feed her eggs.

Don't Pass

Germs are everywhere. Each time we touch something, we can spread germs — or pick up new germs.

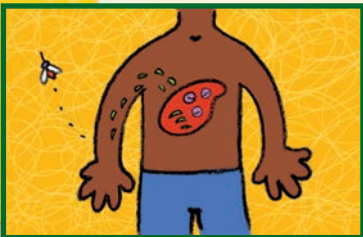
Take a Hands Holiday!

For the rest of the day, send your hands on a holiday by avoiding touching anything with your hands. Use your hip to push open a door. Move a book aside with your elbow.

Take note of the things you could not avoid contacting with your hands. These are some of the places where germs gather. Vigorously washing your hands with soap and water frequently throughout the day can help wash these germs away.

The Speedy Sneeze

Sneezing is a protective mechanism to get germs, dust and other irritants out of our nasal passages. Did you know the droplets expelled during a sneeze can travel at speeds over 160 km/hour? That's thousands of tiny droplets moving faster than a speeding car! To keep from spreading germs, cover your mouth when you sneeze or try to use the crook of your elbow. If you do sneeze into your hand, make sure to immediately wash the germs away with soap and clean water.

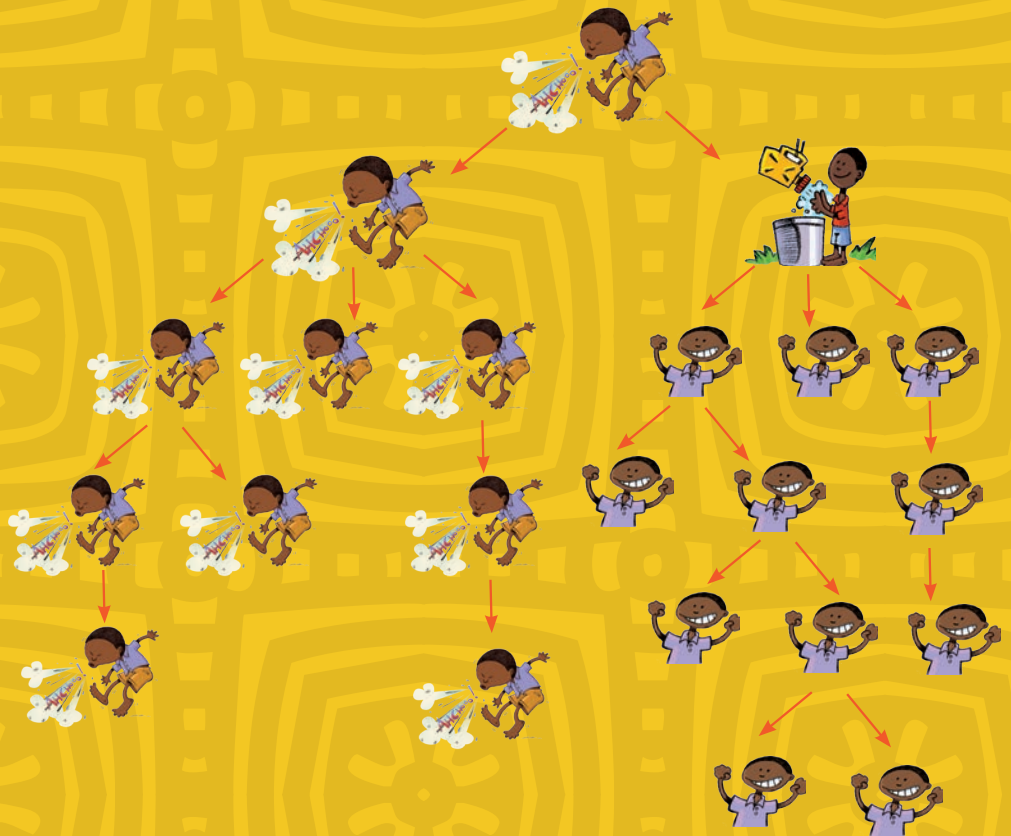


When she bites you the malaria parasite travels through your body to your liver where it reproduces.

Put It Along



How Germs Are Passed Along



A student sneezes and then shakes hands with two friends. One friend washes his hands, the other does not, and then they go out to play with their classmates. Use the diagram above to answer the questions below. See answers on the back cover.

1. How many children were exposed to the germs of the sneezer?
2. How many children were not exposed to the sneezer's germs?
3. Why were some of the children not exposed to the sneezer's germs?



The new parasites become hungry and travel to your blood cells to feed.

Hand Washing

Four Easy Steps to Clean Hands!

- 1) Get Ready! Get Soap!** — Roll up your sleeves and get your hands wet. Rub soap all over your hands until you have some bubbles or foam.
- 2) Scrub Those Hands!** — Rub your hands together for at least 15 seconds. Sing the Hand Washing Song or count off 15 seconds to make sure you give the soap plenty of time to work! Be sure to get all the parts of your hands – front, back and your wrists.
- 3) Rinse Germs Away!** — Pour clean water over your hands. Use a pitcher or a Tippy Tap if you don't have a spigot or tap water. Remember to use clean water when you rinse!
- 4) Shake It Dry!** — Shake your hands dry or use a clean towel.

Why Use Soap?

- Soap removes germs better than just rubbing your hands together with water.
- Washing your hands with soap cuts your risk of getting diarrhea almost in half!
- Nothing is simpler to get disease-causing germs off your hands than washing with soap and water.



Once in the blood cell, the malaria parasite continues to feed and reproduce. Finally, the blood cell explodes.



For Health

Soap + Rubbing + Rinsing = Clean Hands

Before or After?

To stay healthy, you should wash your hands before some activities and after others. Some tasks require washing hands both before and after. Determine if you should wash your hands BEFORE, AFTER or both BEFORE AND AFTER for the following activities. See answers on the back cover.

- Preparing food
- Helping a child on the toilet, or changing a baby's napkins
- Taking medication, or giving it to someone else
- Taking care of an ill person
- Going to bed
- Using the toilet or latrine
- Eating
- Taking care of animals
- Cleaning your nose
- Taking care of an injury
- Handling raw meat

Hand Washing Song

Can be sung to the tune of Frere Jacques

Lather with soap

Rub your palms together

Now the backs

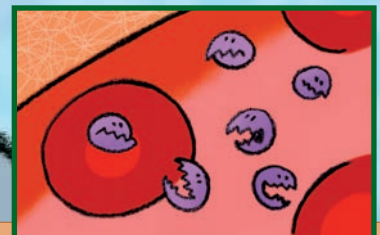
Of your hands

Interlace your fingers

Cleaning in between them

Now the thumbs

Clean your nails



When the cells burst, they release hungry malaria parasites.

How to Play

1. Use a small stone, button or seashell as a game piece for each player.
2. Collect six beans that are colored on one side. These will be used to determine how many spaces each player will move.
3. Each player will pick up the beans and gently drop them onto the game board. The number of beans that land with the colored side up equals the number of spaces that they will move.
4. All players will start at the house and move along the path clockwise.
5. Follow the instructions on the space where you land. If you land on a blank space, stay there until your next turn.
6. Pick up and drop the beans once per turn. Once each player is finished, the next player to the left takes a turn.
7. If you are sent to the Hospital you must return to the start on your next turn.
8. The first player to make it from Home to School wins!

You teach five people in your community how to protect the community water source. All players advance to the next green space.

You boil drinking water for your family. Advance 2 spaces.

You forget to wash your hands before eating. Skip a turn.

Your family gets sick from eating raw, unwashed vegetables. Skip a turn.

You tether your cattle away from the stream. Take another turn.

You wash your hands before preparing dinner. Advance 2 spaces.

Home (START)

While the red blood cells are exploding, you feel sick. You may have fever, headaches, chills, muscle and joint pain, and other symptoms.

Break the Chains

Play this game to learn about healthy habits!

You use your mosquito net for fishing. Go to the Hospital for malaria treatment.

Your class cleans the school water source. All players advance to the next green space.

You make your own Tippy Tap for hand washing at home. Advance 2 spaces.

You drain stagnant water to keep mosquitoes away. Advance 2 spaces.

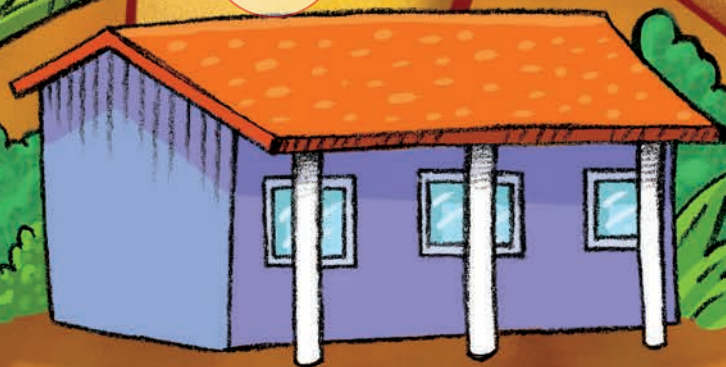
You forget to wash your hands after using the latrine and get diarrhea. Go to the Hospital.

You cover your household's water source. Advance 2 spaces.

You wash your hands after using the latrine. Advance to the next green space.



Hospital
Start over at Home on your next turn.



School (FINISH)

Congratulations! Now that you're at school, you can teach other children about healthy habits.

When you have symptoms, if an *Anopheles* mosquito bites you, she can carry the malaria parasites from you and pass them on to other people she bites.



The Path to Healthy

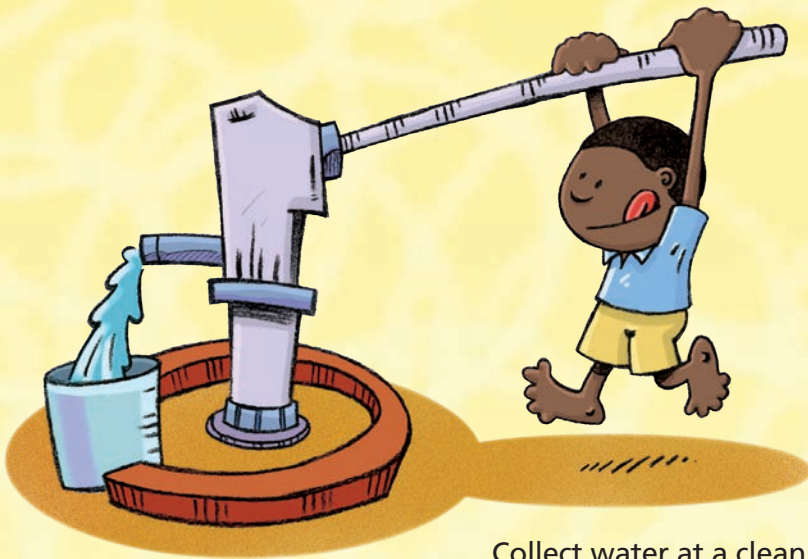
How can you tell if your drinking water is safe to drink? Should you smell it? Taste it? Look at it?

Most of the time it is hard to tell, but there is one thing you can do to be sure. Boil it! Boiling water kills any germs that were in the water, making

the water safe. Boiled water can be used for drinking, brushing teeth, washing your hands and face, washing fruits and vegetables that will be eaten raw and other activities such as cleaning wounds.



Store water in a clean container with a lid.



Collect water at a clean source.



Transport water home.

Boil water for 10 minutes (or more).

On the Path to Clean Drinking Water

Use your finger to connect the scenes and follow the path drinking water takes from its source to your mouth.



One of the best ways to prevent malaria parasites from infecting you is to sleep underneath a mosquito net. Insecticide-treated nets are especially effective.

Why Drinking Water



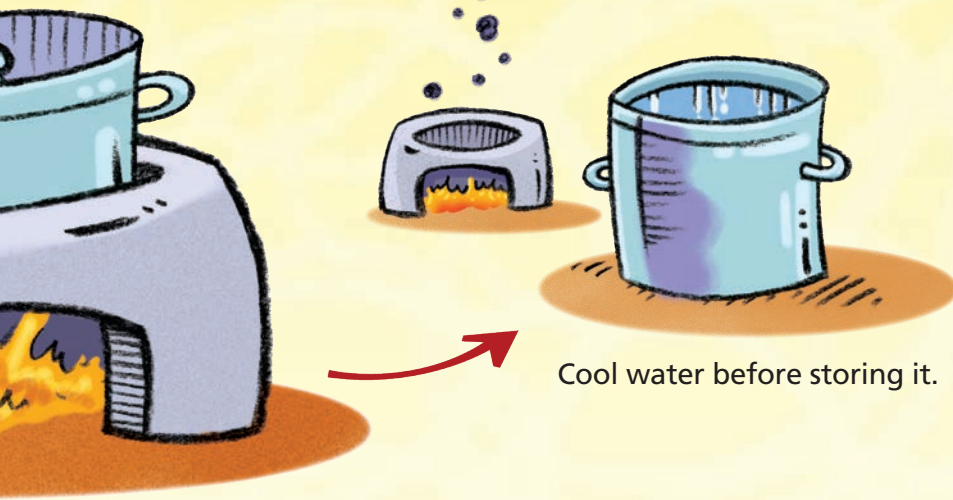
Keep drinking water and unpurified water in different types of containers.



Enjoy your clean, safe water!



Pour water out when you need it, or use a clean dipper with a long handle so germs from fingers and cups stay out.



Cool water before storing it.

...thoroughly for at least three...
...purify it another way).



Infected family members should sleep under their own mosquito net.

Finding Healthy Water

People living in different places go to different sources to get their water. Some people must travel far to get water for use at home; others have water available in their home. Knowing where your water is coming from is as important as making sure the source is protected and well maintained. Because so many people in your community depend on that water source, protecting the water source is important to everyone!

Where do people in your community get their water? From boreholes? Lakes or streams? Springs? Rainwater collected from rooftops? Open wells? These are all different kinds of water "sources." Where are the water sources in your community? In this community, how many water sources can you find? List each of the water sources. Can you think of things that could be done to protect the water sources?



Since the *Anopheles* mosquito feeds at night, protect yourself by wearing clothing that covers you up.

Water Sources

Taking good care of your water means better health for everyone. One person cannot do this alone. It takes a whole community to protect clean water. What can we all do together?

Take good care of water sources.

Keeping litter and waste away from water is easier than cleaning polluted water.

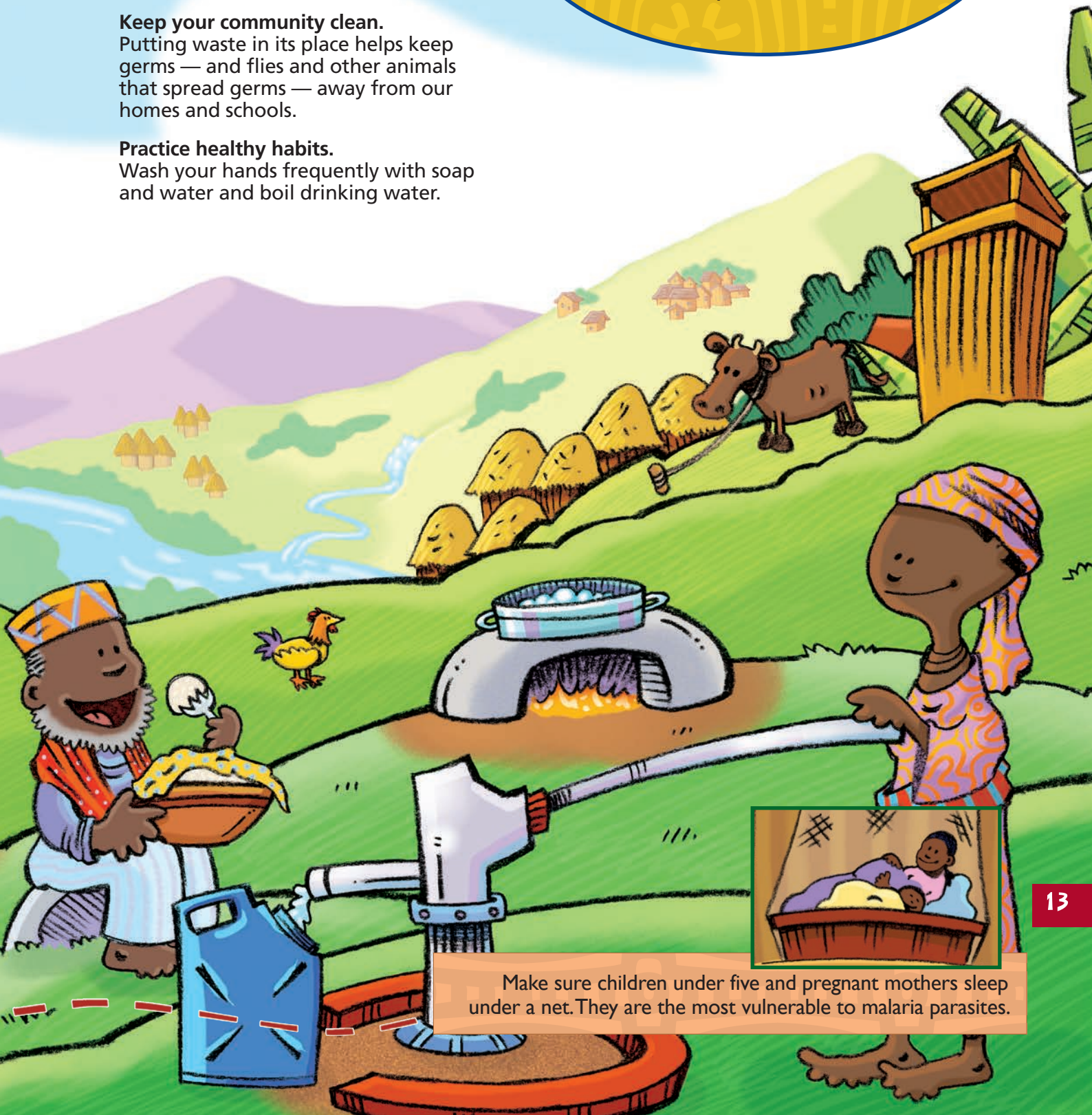
Keep your community clean.

Putting waste in its place helps keep germs — and flies and other animals that spread germs — away from our homes and schools.

Practice healthy habits.

Wash your hands frequently with soap and water and boil drinking water.

Look at the picture on these two pages. List everything you see that will help this community stay healthy. See the back page for a list of healthy habits pictured here.

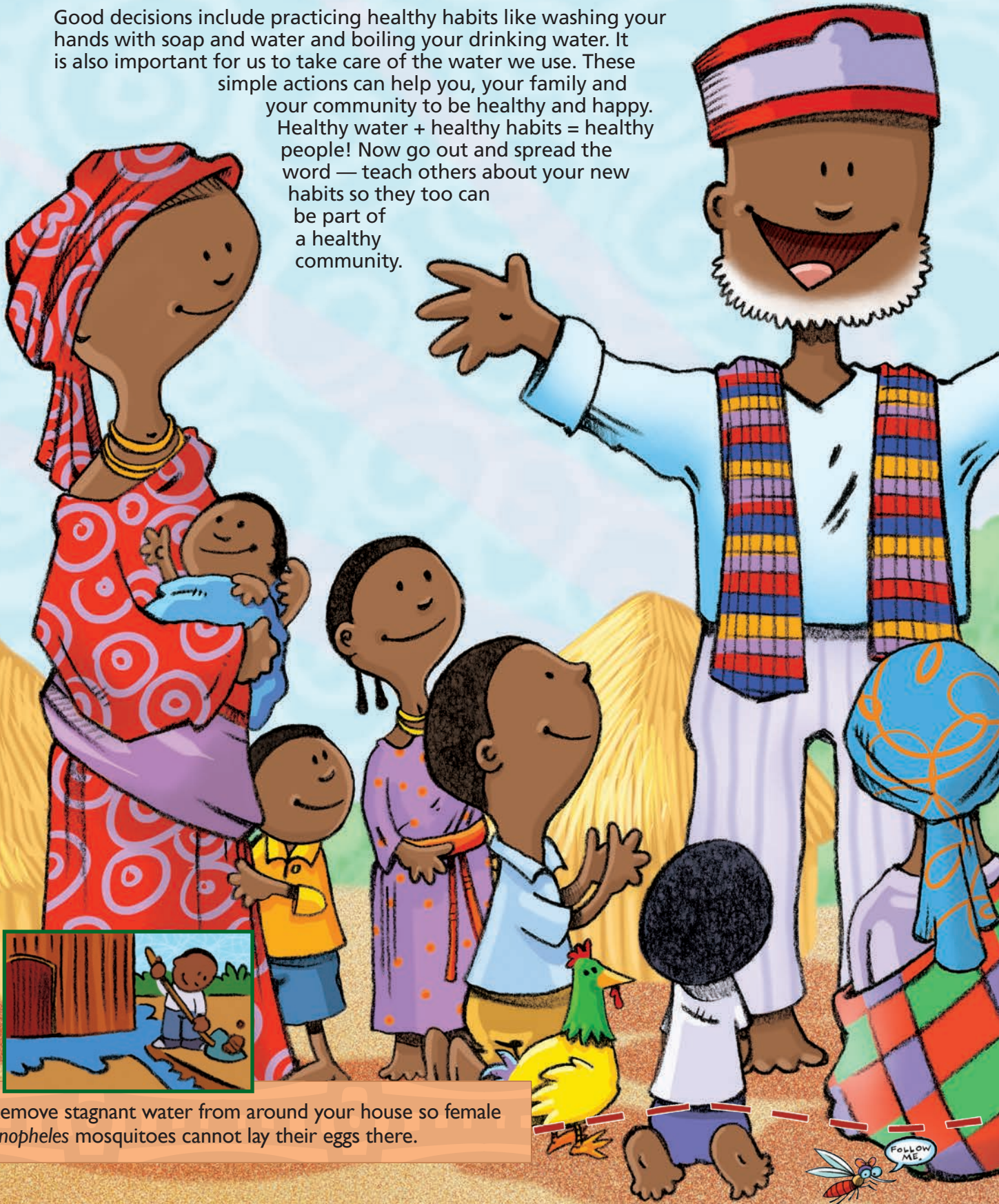


Make sure children under five and pregnant mothers sleep under a net. They are the most vulnerable to malaria parasites.

Water Wisdom

The wisdom of many generations and cultures is passed down through words and stories. Proverbs are one-line stories that share an important piece of knowledge to help others make good decisions in life.

Good decisions include practicing healthy habits like washing your hands with soap and water and boiling your drinking water. It is also important for us to take care of the water we use. These simple actions can help you, your family and your community to be healthy and happy. Healthy water + healthy habits = healthy people! Now go out and spread the word — teach others about your new habits so they too can be part of a healthy community.



Remove stagnant water from around your house so female *Anopheles* mosquitoes cannot lay their eggs there.

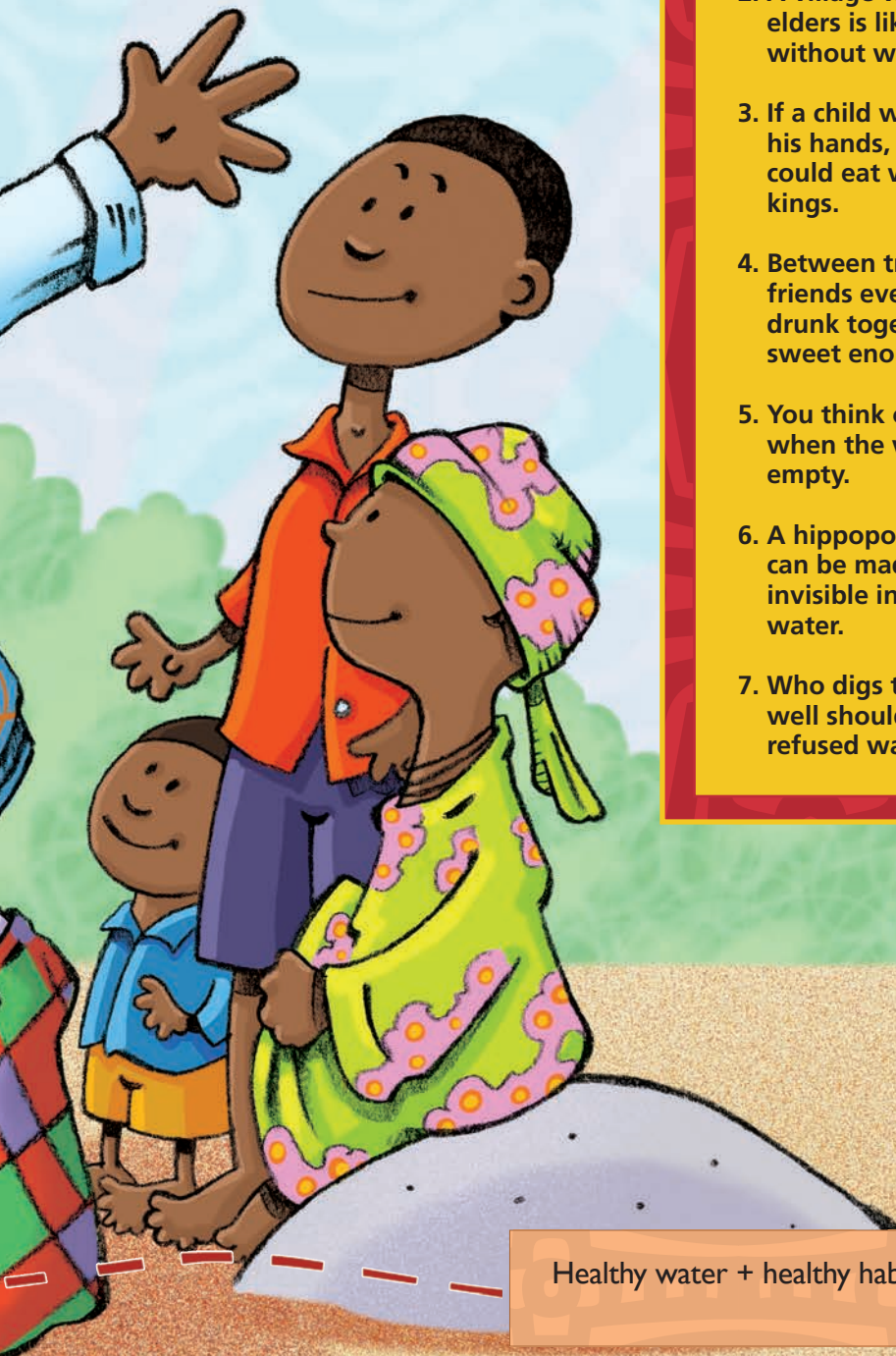
Mixed-Up Proverbs

A proverb is the horse that can carry one swiftly to the discovery of ideas.

- Nigerian proverb

Our ancestors speak to us through their proverbs. Match the proverb on the left with the correct meaning on the right. Check your answers on the back.

- | | |
|--|--|
| 1. Health is the body of prosperity. | A. You don't appreciate what you have until it is gone. |
| 2. A village without elders is like a well without water. | B. A young person who develops discipline and manners may participate with elders. |
| 3. If a child washes his hands, he could eat with kings. | C. If you don't have your health, you don't have anything. |
| 4. Between true friends even water drunk together is sweet enough. | D. Ignorance can hide even a big truth. |
| 5. You think of water when the well is empty. | E. Those who work should share in the benefits. |
| 6. A hippopotamus can be made invisible in dark water. | F. A well without water is incomplete, as is a village without elders. |
| 7. Who digs the well should not be refused water. | G. Friendship makes everything seem brighter. |



Healthy water + healthy habits + healthy people = healthy communities.

Answer Key

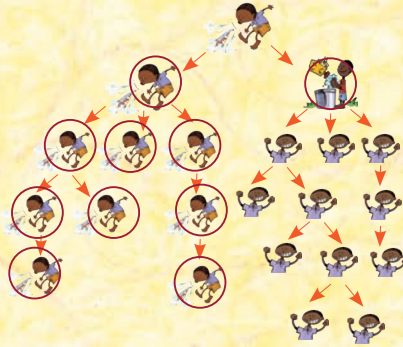
Clean Water, Healthy People Quiz

Check your answers below

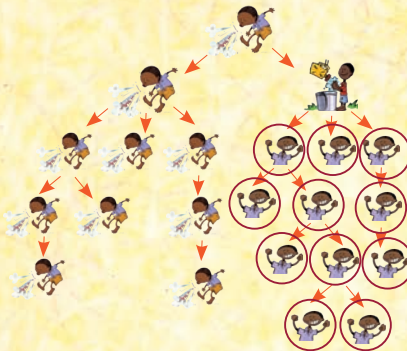
- How long should you boil water to kill germs?
 - Until half of it has evaporated
 - Three minutes
 - Until it is warm
- You should wash your hands after which of the following activities?
 - Using the latrine
 - Sneezing
 - Tethering your animals
 - All of the above
- Which of the following is a common place to pick up germs or pass them along on your hands?
 - Latrine
 - Door handle
 - Handshake
 - All of the above
- After you've lathered up with soap, how many seconds should you spend vigorously washing your hands?
 - At least 15
 - Not more than 30
 - 60
- Which activities require boiled water?
 - Drinking and brushing teeth
 - Washing hands and face
 - Washing fruits and vegetables that will be eaten raw
 - All of the above

Quiz Answers 1. b, 2. d, 3. d, 4. a, 5. d

How Germs Are Passed Along, pg. 5



1. Ten children were exposed to the sneezer's germs.



2. Eleven children were not exposed to the sneezer's germs.

3. Because the child who originally shook hands with the sneezer washed his hands, the germs were not passed along to his classmates.

Before or After, pgs. 6-7

Before

- Eating
- Taking medication or giving it to someone else
- Taking care of an injury

After

- Using the toilet or latrine
- Taking care of animals
- Helping a child on the toilet, or changing a baby's napkins

Before and After

- Cleaning your nose
- Taking care of an ill person
- Taking care of a wound
- Handling raw meat
- Preparing food

Water Sources, pgs. 12-13

- Well
- Borehole
- River
- Spring
- Rain Water Catchment Tank

Healthy Habits, pgs. 12-13

- Locate the latrine away from the house and any water source.
- Wash your hands with soap and clean water.
- Keep the area around the house clean of trash and brush.
- Sleep under a mosquito net.
- Keep flies off food by covering it.
- Boil your drinking water.
- Tether animals away from water sources.
- Cover your stored water.
- Maintain a clean well or water source.

Water Wisdom, pg. 15

- C
- F
- B
- G
- A
- D
- E

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ISBN for PDF ebook edition: 978-0-990-3620-0-5
ISBN for print edition: 978-1-888631-56-2

Published by the Project WET Foundation
Dennis L. Nelson, President and CEO

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PDF ebook edition, April 2014.

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Thank you to all who contributed to the development of this publication.