

IS THIS WATER SAFE?

- Knowledge** After working through this lesson, participants will be able to:
- Attitude** 1. Explain why clear water is not necessarily clean water.
- Practice** 2. List things that may be in our water supply.
3. Discuss ways to find out if water is safe.
- Overview** This lesson is adapted from *A Community Guide to Environmental Health*, from the Hesperian Foundation. The lessons may be used with adults or with older children.
- Materials** *Collect these items before beginning the lesson:*
- Poster-size paper, markers, and masking tape

LESSON

60 minutes

Demonstration: (20 minutes)

Before this demonstration, prepare 4 clear bottles. Fill them with boiled water or purified water. To one bottle, add 1 teaspoon (5 cc.) of mud. To the second bottle, add a spoonful of sugar. To the third bottle, add a spoonful of salt. Do not add anything to the fourth bottle. Shake the bottles well.

Show the bottles to the group. Have them observe the bottles, and also smell the water.

Would anyone like to taste the water in the bottles? Why or why not? (Probably nobody will want to taste the muddy water.)

Why didn't you want to taste the muddy water?

What did the water in the other bottles taste like?

Was the water in the fourth bottle safe to drink? How do you know?

Ask SHO Questions:

What did you See?

What was Happening?

Does this happen in Our place?

Is this Water Safe? (10 minutes)

A. What are some things that can contaminate water and make it unsafe to drink?

1. Bacteria or germs. They can make you sick.
2. Parasites, like amoeba or Giardia or blood flukes.
3. Chemicals or toxins
4. Pollution
5. Pesticides

B. What may happen if you drink water that is not safe?

1. You may get sick from the germs in the water.
2. You may have diarrhea.

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3. Some more serious diseases are spread by contaminated water.
 4. Chemicals like arsenic may build up in your body.
 5. Some people drink contaminated water but don't get sick.
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Safe Drinking Water (20 minutes)

Instructions: Divide into small groups. Each group will answer one of two questions. Report back.

- 1- How can you tell if the water is safe to drink?
- 2- How can you make sure?

- A.** How can you tell if the water is safe to drink?
 1. You can't tell by looking at the water.
 2. You can't tell by smelling or tasting the water.
 3. Water may be clear and look good and still be contaminated.
 4. Water may smell good or taste good and still be contaminated.
 5. There is no way to tell just by looking at the water.
 6. People can look at water under a microscope to see if there are germs.
 7. Or they can do tests in the laboratory.
 8. The local government may treat the water and test the water to make sure that it is safe to drink.
 - B.** How can you make sure that your water is safe to drink? Report back with a drawing or a demonstration.
 1. You can buy purified water.
 2. Sometimes the government purifies the water so that it is safe to drink.
 3. You can boil your water.
 4. There are water filters that remove most of the germs.
 5. You can use the sun to disinfect water (SODIS).
 6. There are other ways to purify water.
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Application (10 minutes)

- A.** Where do you get your drinking water?
 1. From a stream
 2. From a well
 3. From the tap
 4. We buy purified water.
 5. We boil our water.
- B.** Is your water safe to drink?
 1. Yes!
 2. I think so.
 3. I am not sure.
 4. Maybe not.
- C.** We will talk more about ways to purify water.
 1. We will talk more about this

References:

Conant, J. and P. Fadem. 2008. *A Community Guide to Environmental Health*. Berkeley, CA: Hesperian Foundation. Available from: http://hesperian.org/books-and-resources/?book=download_a_community_guide_to_environmental_health#tabs-downloads