Lesson Plan: Global Village Mystery

Overview
In this activity students investigate how the people in a community are becoming sick. They gather information from village members, pool their information, develop a hypothesis of what is occurring, and compare their results with the final answer.

There are two versions of the Global Village Mystery Game:
1). Global Village Mystery Role-Play Version (large group- 40+ people)
2). Global Village Mystery Picture Version (smaller group- 5-40 people)

Background Knowledge:
No background knowledge is required for this game.

Time Required: 1 hour & 10 minutes

Grade Level: Grades 7 - 12

Subject Area: Science, Social Studies
Lesson Plan: Option 1
Global Village Mystery Role Play Version (40+ people)

Learning Expectations

At the end of this session participants will be able to:

1. Explain how feces can make us sick.
2. Discuss the consequences of a lack of access to safe water and sanitation.

Materials

- Copy of roles for each of the 7 village members
- 1 piece of flip chart paper per group
- 2 to 4 markers per group
- 1 Solution Card per group
- Power Point Projector
- Global Village Mystery Role Play Powerpoint slides
- Costumes for each village member (optional)

Preparation

- Select 7 volunteers to play the role of the villagers and brief them on their roles (see roles below). Explain that they can improvise the role, but should limit the information they share to what they have on their role – they should not divulge information held by other villagers.
- To add to the fun, ask them to dress up in a costume suitable to their role and bring props to support what they will be discussing.
- Select the place where each villager will stand and put their locations on the board or a PowerPoint slide for students to see.
- Divide students into small groups.
- Provide each group with a piece of flip chart paper and markers.
- Cut out the solutions from the solution page.

Introduction

1. Explain to students that they’ve arrived in a small rural village, where they discover that many people are getting sick, and some are even dying. The PowerPoint provided can be used for this explanation.
2. Tell them that their task is to figure out why the people in the village are sick.
**Topic 1: Investigate the Problem**  
20 minutes

1. Explain that to figure out why the villagers are getting sick students can interview the villagers, but they must observe two important rules:
   - They can send 1 group member to each villager to get clues
   - Each group member can speak to only 1 villager

2. Explain that they will be given a maximum of 10 minutes to talk to the villagers. Each villager will have a short story to share, and will then be open to receiving questions for the remainder of the time.

3. Tell groups that they have five minutes to develop a strategy of how they will collect information before they start their interviews.

4. After the allocated preparation time, signal to students that they can begin their village visits. Remind them that they only have 10 minutes with the villagers.

**Topic 2: Share Findings**  
20 minutes

1. At the end of the visiting period, tell students to return to their small groups.

2. Explain that group members should share the information they collected and then create a map or diagram to show how the people in the village are getting sick. Provide at least 20 minutes for this.

3. When groups have developed their concept, share the different hypotheses.

4. Provide the answer to students using the diagram provided, and ask them to compare their ideas with the diagram shown.

**Topic 3: Compare with Global Statistics**  
5 minutes

1. Explain that this village is not unlike many villages in the world.

2. Share the following water statistics. To add impact, ask a proportionate number of students to stand for each statistic.
   - 1 of 9 (663 million) people lack access to an improved water source.
   - 1 in 3 (2.4 billion) people lack access to improved sanitation.
   - 1 in 8 people practice open defecation (946 million).
   (JMP, 2015)

3. Ask students to think individually and then discuss as small groups or partners the implications of these statistics.

4. Explain that sickness from unsafe water and a lack of sanitation has multiple consequences. Use the slide provided to explain the poverty cycle.
Topic 4: Look for Solutions 10 minutes

1. Ask students to consider what they could do to stop the spread of sickness in the village.
2. Provide each group with one solution, and ask them whether they believe that the solution would be enough to stop the spread of disease in the village.
3. If they don’t believe that it’s enough ask them to discuss what other solutions are necessary.
4. Share the solutions slide on the power point, and discuss the importance of using an integrated solution that includes education to stop the spread of disease in the village.
   i. Are these solutions applicable to Canadian communities, why or why not?
   ii. How could we get people to use them?

Review 10 minutes

1. Ask students to create individual diagrams in their books showing the different ways that feces got into people mouths to make them sick.
2. Ask students to add the ways of blocking this transmission to their diagrams.
Global Village Roles

Person at water source (river)
Props: bucket with dirty water
- You come to the river several times a day to collect water. It’s about a 20 minute walk from your home.
- Most of the community gets their water from this source.
- In the rainy season the water is murky.
- Lately the farmers’ cows have been coming down to the river to drink, now that the water level is higher. They often poop on the banks of the river. You get frustrated because you sometimes step in a cow pie by accident.

Mother of a sick child
- You’re tired because you need to take care of your sick child, while trying to do all the labour in the house.
- Your child is sick with diarrhea. She’s too weak to go to school.
- You hope that your visitors don’t want to use the latrine because it’s very dirty. You haven’t had time to clean it lately so it’s very smelly and full of flies.
- You offer your guests some food, but you need to swat the flies off of it before they can eat.
- You mention that your children don’t like using the outhouse because it’s smelly. They usually defecate in the field behind the house.

School principal
- You’re excited about a new school lunch program that’s just started.
- Local farmers donate produce from their garden.
- The children get a good meal at school every day.
- Usually there is not enough water to wash all the vegetables before they’re prepared.
- Because it’s rainy season you now collect rain water for students to wash their hands. However, there is not enough money in the budget to buy soap.

Community leader
- You haven’t been feeling sick at all.
- Every day you filter your water with a biosand filter that you received from a local NGO. You paid some money for it, and did work washing sand.
- You’ve built a latrine that you invite your guests to use because it’s nice and clean.
- You offer your guests some food and tell them to wash their hands and scrub with soap, which you offer them before they eat.
- The food that you give them is covered so that no flies can get to it.
Health nurse
- You explain that more and more people are coming to the clinic each day complaining of diarrhea, especially since the start of the rainy season.
- You tell them that diarrhea is very dangerous because if people don’t get rehydrated quickly they can die of dehydration.
- The medicine and rehydration salts that they need to buy is expensive for them. Some people buy medicine and have no money left for anything else.
- When people come to the clinic you tell them that they should be boiling their water before they drink it and washing their hands frequently, but not everyone listens.

Sick person
- You’ve been feeling really sick since the beginning of the rainy season.
- You have diarrhea and can’t stay away from the bathroom.
- You’re so dehydrated that you keep drinking more and more water, but it just makes you want to run to the bathroom again.
- You’re feeling really weak, and can’t go out to work.
- You’re afraid for your family because you’re not bringing in any money.
- You don’t have money for expensive medicines, and besides, most of the time they don’t seem to work. You just get sick again after you finish the medicine.

Farmer
- You’re pleased that it’s rainy season. Your cows can go down to the river for a drink now with no problem -- before when there was very little water in the river, the cows would get stuck in the mud trying to get out to the water source and sometimes die.
- The cows usually spend a lot of time by the river.
- You get annoyed because when you’re out working you catch the neighbours pooping in your field. Most of them don’t have outhouses so they go to the field for privacy.
- When you’re not paying attention, you sometimes step in the poop by accident. It’s terrible.
**Solution Cards**

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<th>Option 1</th>
<th>Role Play Version</th>
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**Global Village Mystery Game**

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**CAWST**

Wavemakers
Lesson Plan: Option 2

Global Village Mystery Game

Learning Expectations

At the end of this session participants will be able to:
1. Explain how feces can make us sick.
2. Discuss the consequences of a lack of access to safe water and sanitation.

Materials

- Copy of the pictures and stories for each of the 7 village members
- Tape
- 1 piece of flip chart paper per group
- 2 to 4 markers per group
- 1 Solution Card per group (optional)
- Power Point Projector
- Global Village Mystery Picture Powerpoint slides
- Costumes for each village member (optional)

Preparation

- Hang the pictures of each village member and their corresponding stories on the wall.
- Divide students into small groups of 4-5.
- Provide each group with a piece of flip chart paper and markers.
- Cut out the solutions from the solution page.

Introduction

2 minutes

1. Explain to students that they’ve arrived in a small rural village, where they discover that many people are getting sick, and some are even dying. The PowerPoint provided can be used for this explanation.
2. Tell them that their task is to figure out why the people in the village are sick.

Topic 1: Investigate the Problem

20 minutes

1. Explain that to figure out why the villagers are getting sick students must gather information from the villagers, but they must observe two important rules:
They can send 1 group member to each villager to get clues. Each group member can learn from only 1 villager.

2. Explain that they will be given a maximum of 5 minutes to gather information from a villager.

3. Tell groups that they have five minutes to develop a strategy of how they will collect information before they start their interviews.

4. After the allocated preparation time, signal to students that they can begin their villager visits. Remind them that they only have 5 minutes to gather information from the villagers.

**Topic 2: Share Findings**

20 minutes

1. At the end of the visiting period, tell students to return to their small groups.

2. Explain that group members should share the information they collected and then create a map or diagram to show how the people in the village are getting sick. Provide at least 20 minutes for this.

3. When groups have developed their concept, share the different hypotheses.

4. Provide the answer to students using the diagram provided, and ask them to compare their ideas with the diagram shown.

**Topic 3: Compare with Global Statistics**

5 minutes

1. Explain that this village is not unlike many villages in the world.

2. Share the following water statistics. To add impact, ask a proportionate number of students to stand for each statistic.

   i. 1 of 9 (663 million) people lack access to an improved water source.

   ii. 1 in 3 (2.4 billion) people lack access to improved sanitation.

   iii. 1 in 8 people practice open defecation (946 million).

   (JMP, 2015)

3. Ask students to think individually and then discuss as small groups or partners the implications of these statistics.

4. Explain that sickness from unsafe water and a lack of sanitation has multiple consequences. Use the slide provided to explain the poverty cycle.

**Option 2- Picture Version**

10 minutes

1. Ask students to consider what they could do to stop the spread of sickness in the village.
2. (Optional) Provide each group with one solution, and ask them whether they believe that the solution would be enough to stop the spread of disease in the village.

3. If they don’t believe that it’s enough ask them to discuss what other solutions are necessary. Engage in a group discussion that addresses the following questions:
   i. Are these solutions applicable to Canadian communities, why or why not?
   ii. How could we get people to use them?

Review 10 minutes

1. Ask students to create individual diagrams in their books showing the different ways that feces got into people mouths to make them sick.

2. Ask students to add the ways of blocking this transmission to their diagrams.
Solution Cards Optional for Version 2

Global Village Mystery Game

1. Washing hands
2. Traditional cooking
3. Sanitation facilities
4. Fresh vegetables
5. Livestock care
6. Domestic hygiene

CAWST
Wavemakers