



## Lesson 8: Hygiene

### CURRICULUM CONNECTIONS:

Grade 6-8 Social Studies and Science

### INSTRUCTIONAL METHODS:

- Brainstorming
- Think-Pair-Share
- Active Learning (spreading germs and washing hands)
- Group work,
- Group presentation/role play

**ESTIMATED TIME:** 150 minutes

### KEY QUESTIONS/IDEAS:

- What is hygiene?
- Why is good hygiene important?
- What is the fecal-oral route of transmission of disease?
- How can the fecal-oral route be broken?
- In what ways does Samaritan's Purse try to change behavior in developing countries?

### *Note to Teacher:*

You will need a number of different colours of glitter, hand lotion and a hand washing station (including soap) for this lesson. The classroom may get a bit glitter-filled, but it will prove the point about germs!

## MATERIALS

Glitter,  
Moisturizer,  
Sink (or bowls of water if not available),  
Soap,  
Paper towels,  
Copies of Activity W16—  
F-Diagram (enough copies for  
half the class),  
Copies of Activity W17– Three  
Pile Sorting (enough copies for  
half the class),  
Scissors (enough for at least  
each group to have a pair,  
preferably more)

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## Part A: Defining the word ‘Hygiene’ (10 minutes)

**As a class, come up with a definition of hygiene. Ask students what comes to mind when you say hygiene. Write ideas on the board, and from that define the word.**

**Hygiene (Mirriam - Webster’s Dictionary definition):** A science of the establishment and maintenance of health conditions or practices (as of cleanliness) conducive to health (examples: He has poor personal hygiene, Brushing your teeth regularly is an important part of good oral hygiene.)

## Part B: Think-Pair-Share (20 minutes)

### THINK-PAIR-SHARE:

In this instructional strategy students first try to answer a question or brainstorm on their own, then pair up with someone sitting near them and come up with a collective response, then when called upon, share their answers with the class.

### QUESTIONS FOR THE STUDENTS TO ANSWER:

In what ways do you practice good hygiene in your everyday life? (Be specific with as many examples as possible)

Why do you practice these good hygiene habits?

Have students write down their personal answers first, then pair and come up with a longer list, then share with the class. Teachers – make a complete list of all different hygiene practices used by the students.

## Part C: Germs, Germs, Germs (30 minutes)

### THE FOLLOWING IS A VISUAL EXAMPLE OF THE IMPORTANCE OF HANDWASHING.

For this activity you will need glitter (preferably 4 or 5 different colours), hand lotion, soap and a sink with running water (or some bowls of water if a sink isn’t available).

### ASK STUDENTS:

What are germs? (Bad, make you sick, micro-organisms that cause disease or sickness)

What kind of illnesses do germs bring? (Colds, flus, diarrhea, pink eye, respiratory illness, etc.)

Where are germs found? (On hands, outside, in dirt, air, on toilets (in poop), in hospitals, on any surface, in food, everywhere)

How do germs make people sick? (Get inside you and multiply, hurt your body)

How can we avoid germs and getting sick? (Wash hands well, use a disinfectant, use soap, cover mouth when sneezing or coughing)

Can we usually see germs? (No, they are invisible to our eyes, very small)

### THINK-PAIR-SHARE:

In this instructional strategy students first try to answer a question or brainstorm on their own, then pair up with someone sitting near them and come up with a collective response, then when called upon, share their answers with the class.

**Hygiene (Mirriam - Webster’s Dictionary definition):** A science of the establishment and maintenance of health conditions or practices (as of cleanliness) conducive to health (examples: He has poor personal hygiene, Brushing your teeth regularly is an important part of good oral hygiene.)

A visual reminder of how germs can spread: We will use glitter to represent germs. If you have different colours of glitter, they could represent different germs like the cold virus, salmonella, E. Coli, Hepatitis A, etc.

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Divide students into smaller groups (4-5 people) and give each group a colour of glitter (a different type of germ). Each student should first use the hand lotion, then one student in each group puts glitter on their hands.

Once one person in each group has glitter on their hands, instruct them to high-five each other member of their group. Each group member should have some glitter transferred onto their hands. Now, encourage the whole class to mingle, when they meet someone from another group, shake hands and introduce themselves. If they meet up with someone from their own group (same colour of glitter), high five again.

Give students about 10 minutes to work the room. Encourage them to try to meet as many people as possible (shaking hands each time).

When the class has finished this activity, have students sit down at their desks and discuss the glitter transfer.

#### **SAMPLE QUESTIONS:**

How many kinds of germs do you have on your hands? Was it easy or difficult to transfer glitter (germs)? Can you see any other places in the classroom that now have germs (desks, pencils, floor, clothing, etc.)?

Now that everyone has many germs on their hands, what do we need to do? (Wash hands)

### **Part D: Hand-washing Exercise (20 minutes)**

- Most of the time (when we aren't using glitter) you can't see germs and so you can't know if they are there or not. That's why you should always wash your hands until they're clean.
- Today - if you can wash off all the glitter, your hands are clean (you have washed off all the germs).
- Let students wash hands in sink or set up some bowls to wash hands in if you don't have access to a sink. First let a few students start washing with just water (the glitter should stay on).
- Stop everyone and ask: Are your hands clean? Do you still have glitter? If you eat now, without washing more, what can happen? (Can get sick, still have germs)
- What does this mean? What needs to change? (Just water doesn't do a good enough job. We need to wash with soap and warm water, and scrub for longer)

#### **NOW, SHOW AN EXAMPLE OF GOOD HAND WASHING (WITH SOAP)**

- Get your hands wet
- Put soap on your hands
- Rub the soap all over your hands- on the backs of your hands, between your fingers, everywhere.
- Wash it clean with clean water (second bowl or by rinsing in sink)
- Have the students repeat this process, correcting them along the way if necessary
- Now examine hands – is there any glitter left? Are you germ-free? When you wash with soap and clean water all the germs come off.

#### **DISCUSSION:**

- When should you wash your hands?
  - Before you eat
  - After you go to the bathroom or change a baby's diaper
  - Before you cook

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## Part E: The Fecal-Oral Route (20 minutes)

A big part of what Samaritan's Purse WASH staff try to do is stop the Fecal-Oral Route of disease transmission. As you saw with the glitter exercise, it is very easy to pick up germs with our hands. And in the developing world where feces are not contained, it is very easy to spread fecal contamination (germs).

### **Definition: Fecal-Oral Route**

**The spread of microorganisms from the infected stool of one person into the mouth of another; may occur via fecal contamination of food or water supply, or by hand-to-mouth transmission following inadequate hand washing after touching contaminated items (Source: CDC)**

A common example of how the fecal-oral route works: (teachers can tell this story as an example)

Grace and her family live in a small village on the outside of Jakarta, Indonesia. Her family uses a latrine on a daily basis. After using the latrine, Grace goes back to her household and changes her baby's diaper. After changing the diaper, she takes her baby and goes outside to the market to buy some fruit. She hands the money to the vendor and goes back to her shelter. There, she cuts the fruit into pieces and feeds it to her baby.

### **DISCUSSION QUESTIONS:**

1. Is fecal matter getting orally ingested in this example? How and when? (Yes. The baby would be ingesting fecal matter, as well as Grace if she is also eating fruit. The vendor could also be contaminated through the ex-change of money – and then could transmit the contaminants to other customers).
2. How can Grace cut off the fecal-oral route? (She can wash her hands)
3. List 3 different times in this story when Grace should have washed her hands. (After defecating, after changing the baby's diaper, before preparing food)
4. Who is likely to get sick from fecal contamination in this story? (Grace, her baby and the vendor (or anyone else he hands the money to))

## Part F: Hygiene Promotion Activities (60 minutes)

Samaritan's Purse conducts Hygiene Promotion Meetings at every village where they install Household BioSand Water Filters. Studies have shown that just giving a family clean water (via a filter) is not enough to create a healthy change in their life, but coupled with Hygiene training and improved sanitation, the clean water makes a lasting difference in the health of a family and community. Families are required to send a member to the health education meetings in order to receive their water filter.

The following activities were created to encourage behavior change in communities. The F-Diagram is a visual representation of the fecal-oral route and how it can be broken. The Three Pile Sort is an activity that gets people thinking about their habits and which ones need to be changed.

- Divide the class into an even number of groups (4 or 6 groups of 4-5 students). Give half of the groups Activity W16 – F-Diagram Workshop and the other half of the groups Activity W17 – Three Pile Sorting Workshop.
- Instruct students that they are now Community Health Facilitators in Grace's community. They must learn how to teach their given workshop and then teach another group (who has the other handout) in the class using the materials given. Then the groups will switch. Each group will get a chance to teach their workshop.
- Give students 20 minutes to prepare their workshops (cut out pieces and decide who will teach what part).
- Pair up groups of students (One group teaching F-Diagram and one group teaching Three Pile Sort work together). One group teaches their lesson to the other group – who pretends to be members of Grace's community in Indonesia. Then the groups switch roles.

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## Part G: Follow up Discussion and Take a Stand (25 min)

Following this activity have a class discussion about what students learned today. Is there anything that they learned today that will change their habits here in Canada?

### TEACHING STRATEGY

**True or False Game:** In this instructional strategy two opposing sides of the classroom are labeled 'TRUE' and 'FALSE'. The teacher asks questions that can be answered with either 'true' or 'false' and students go to the wall that depicts their chosen answer. Teachers should ask a few students to justify their answer before going on to the next question.

1. Everyone in the world has a toilet.
2. Those people who do not have a toilet wish they had one.
3. If you wash your hands with soap you will not get sick.
4. Eating poop will make your stomach sick.
5. Drinking water from a water filter will prevent you from getting diarrhea.

After each student takes a stand, be sure to ask at least a few people on each side (true or false) why they believe that the statement is true or false. How do they know? Who taught them this information? (It may surprise students to hear that eating poop does not always make your stomach sick. In fact in many developing countries people eat food with feces on it and don't get sick at all. Their bodies have become immune to the E. Coli in some cases. Also, eating your own feces does not make you ill. Drinking water from a water filter may help you not get diarrhea, but if the glass you drink out of is dirty, or the spout of the filter has feces on it you may still get sick.)

#### *Note to Teachers:*

Label two different sides of your classroom with "True" and "False". Make the following statements (or put them on the board one at a time) and ask the students to take a stand.

## ACTIVITY W17 – F-DIAGRAM WORKSHOP

The fecal-oral transmission route is shown on the attached poster starting with feces, and being transmitted through flies/pet animals, fields, fluids (water), fingers and food into an individual's mouth. (Note: the first letter of each word and hence the name F-Diagram but this only works in English so this should not be used in other languages). Keep the poster/drawing for the end of the workshop – allowing community members to come up with their own solutions first.

To block the fecal-oral transmission route, controls include using of toilet, proper hand washing, using safe water source and good handling practices, and adopting good food hygiene practices.

Diarrhea, dysentery, cholera, typhoid, polio, jaundice, gastroenteritis and intestinal worms are common diseases that can be caused by slight contact and transfer of germs from feces.

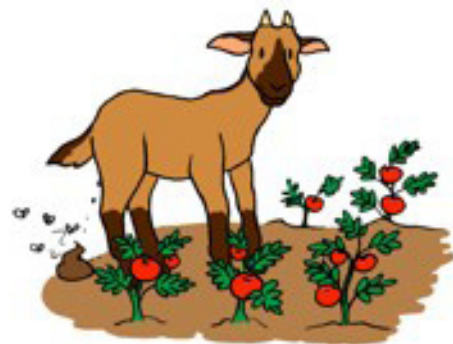
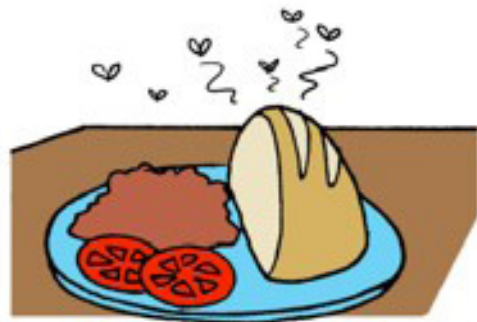
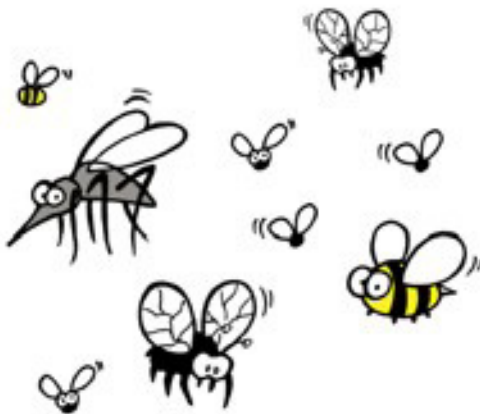
### TO PLAY THE GAME:

- The individual components of the poster, including the arrows, are cut apart prior to introducing the activity.
- The facilitator introduces the topic and starts with the pictures of feces and the child's mouth.
  - He/She explains that there are many ways in which germs (disease) can be “transmitted” from the feces to the mouth. They place the feces picture at one end of the table/floor and the mouth picture at the other end.
  - The participants are to place the remaining pictures, including the arrows, between these two pictures to illustrate how germs can find their way to the mouth.
- A discussion can take place to find out why the pictures are placed the way they were and to ensure everyone understands what a “transmission route” is.
- A second part to the game would be to place a latrine, a BioSand filter or other water treating technologies, hand washing, good hygiene practices, good food handling practices and safe water storage on top of the arrows to break the transmission route.
- Now show the F-Diagram Poster and explain all of the parts. Also discuss how to stop the fecal-oral cycle in these situations.
- A discussion can also take place to ensure understanding

#### Sources:

- Activity taken from Samaritna's Purse Hygiene Training resources and cartoons originally developed by CAWST
- Attribution-ShareAlike 4.0 International



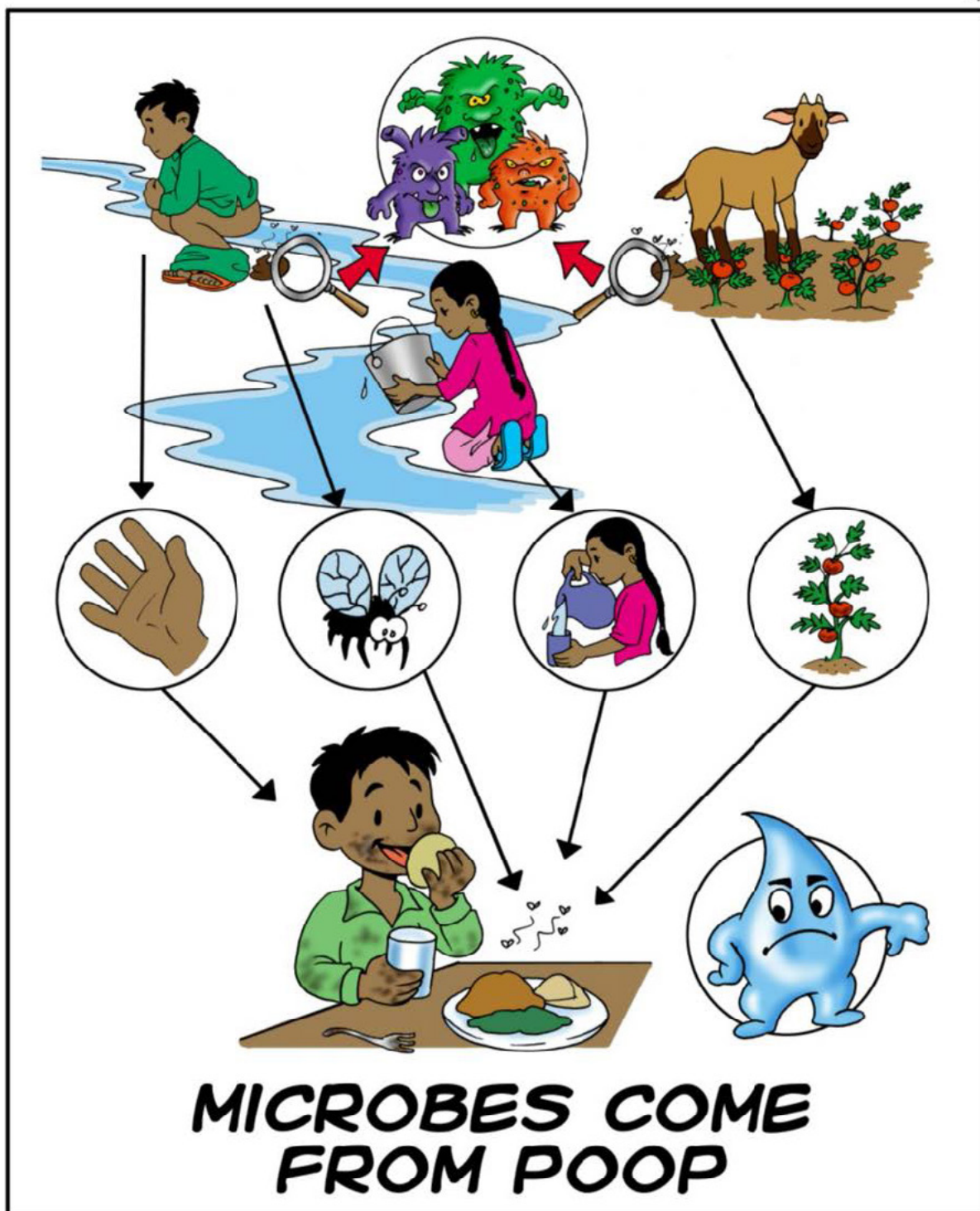












# HANDOUT 1.18 – THREE PILE SORTING WORKSHOP

**MATERIALS:** This activity consists of a set of 40 coloured illustrations or cards showing good and bad hygiene practices.

**OBJECTIVES:** Understanding of good and bad hygiene practices, and understand actions for good hygiene practices.

**PROCESS:**

- **Step 1:** If you intend to use this as a teaching activity with one group then one set of cards is suitable. If you intend to complete this using several groups at the same time, then print out as many versions as you need so that each group has a complete set of cards.
- **Step 2:** Give out the sets of three pile sorting drawings, and three heading cards – one with the word “good”, another with the word “bad” and third with the word “in-between”. (Symbols to represent these qualities are also printed on each card i.e.: smile, sad, no expression.)
- **Step 3:** Ask the participants to sort the pictures into three piles.
  - Good – those which they think show activities that are good for health.
  - Bad - those which they think show activities that are bad for health.
  - In-between - those which they think are activities that are neither good nor bad for human health for health or which they are not sure about.
- **Step 4:** After 20 – 30 minutes ask the participants to explain their selections and why they made these choices. Facilitate a discussion on the way the participants have sorted the drawings. This discussion will provide a chance for participants to share what they know with the rest of the group. As the facilitator, clarify any misconceptions about disease transmission routes, and encourage the group to think carefully about the choices moving cards from one pile to another if necessary. The group may realize there are knowledge gaps and look for ways to fill these.
- **Step 5:** Ask the group to consider and discuss the common behaviors in its own community.
  - Ask the group/s to consider whether these behaviors are similar to any of the good and bad practices it has identified.
- **Step 6:** At this stage or at a later session the group may start to discuss ways of eliminating the bad practices it has identified in its community. Encourage this discussion and have the group keep a record of suggestions made.
- **Step 7:** Discuss any one of the practices and why it is identified as bad practice. Discuss how the bad practice is causing problems in the community, how participants can eliminate it, and encourage other people to eliminate it.
- **Step 8:** Discuss any of the good practices and why it is identified as a good practice. Discuss how participants can encourage others to use this good practice.

**ALTERNATIVE METHOD:**

If two or more sets of three-**pile** card **sorting** drawings are available and the group of participants is quite large, the group can be split into two or more subgroups. Each subgroup then carries out the exercise, and the facilitator encourages a debate between groups on why they made the choices they did.

This exercise is also useful as a baseline survey tool to assess people's understanding of disease transmission routes and hygiene practices.

*Sources:*

- [Three-pile-sorting-activity](#)
- [“Three Pile Sorting Activity” by CAWST is licensed under CC BY-SA 4.0 / Adaptation](#)

# GOOD



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# BAD



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# IN-BETWEEN







