

# Healthy Hands

## Hand Hygiene Resource Manual for Child Care Centres



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**Health Unit**



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## INTRODUCTION

According to the World Health Organization (WHO), proper hand washing is the single most effective way to prevent the spread of illness (American Journal of Infection Control, 2009, 37(10), 820-826). By encouraging child care educators to incorporate lessons and activities on proper hand washing for children, there is the potential to improve hand washing habits, as well as ensure that each child has the necessary knowledge and skills to prevent the spread of germs.

Children are taught the basic principles of hand washing very early in life; however, regular reinforcement is necessary to instill proper life-long habits. Healthy hand hygiene starts with children as a fundamental health practice, and has the potential to foster lifelong practices among all persons to prevent infections.

The North Bay Parry Sound District Health Unit has developed the Healthy Hands: Hand Hygiene Resource Manual for Child Care Centres (Winter 2020) to support child care educators, children, and their families to learn about the importance of proper hand washing. This resource provides lesson plans, activities, and materials for educators to use to teach children about germs, how they are spread, and how to prevent the spread of germs through proper hand washing. The lesson plans and activities are intended to assist educators in incorporating hand washing into the daily routine of their classroom. The ultimate goal is to teach children about proper hand washing in order to reduce illness. Hand washing promotion has been shown to reduce diarrhea episodes in child care centres by about 30% (Cochrane Database of Systematic Reviews, 2015, Issue 9. Art. No.: CD004265).

# How Infections Spread



**Germs**  
- Bacteria  
- Viruses  
- Parasites  
- Fungi



**Where germs live**  
- People  
- Animals  
- Food  
- Soil  
- Water



**Next person at risk**  
- Babies  
- Children  
- Elderly  
- Unvaccinated  
- Anyone



**How germs get out**  
- Mouth (saliva, vomit)  
- Nose (runny nose)  
- Cuts in the skin (blood)  
- During diapering and toileting (stool)



**How germs get in**  
- Mouth  
- Nose  
- Eyes  
- Cuts in skin



**How germs get around**  
- Contact (touching hands, toys, diapers, sand)  
- Droplets (when you speak, sneeze or cough)



Ottawa Public Health. (2019). <https://www.ottawapublichealth.ca/en/professionals-and-partners/chain-of-infection.aspx>

**Hand washing is the best way to prevent the spread of infections.**

## Before

- Preparing food
- Eating or drinking
- Feeding a child
- Giving a medication
- Applying a cream or bandage
- Touching your face



## After

- Arriving for work
- Hands are visibly dirty
- Using or helping a child use the toilet
- Changing a diaper
- Sneezing, coughing or blowing a nose
- Cleaning up any body fluid (drool, vomit, blood, urine)
- Removing gloves
- Handling pets, food or treats



# When to wash your hands

## Before

- Eating or drinking
- Playing with water or clay (sensory table)



## After

- They arrive
- Hands are visibly dirty
- A diaper change or using the toilet
- Sneezing, coughing or blowing a nose
- Playing with water, sand or clay
- Handling pets, food or treats



**Help children wash their hands**

# Hand Washing Steps

**1**



**Turn on Water**

**2**



**Wet Hands**

**3**



**Scrub with Soap**  
**15 - 20 seconds**

**4**



**Rinse Clean**

**5**



**Dry Hands**

## LESSON PLAN #1 WHAT ARE GERMS?

1- 2 hours or multiple lessons

(Adapted with permission from GOJO Industries, Inc., creators of PURELL Instant Hand Sanitizer, www.gojo.com, 2013)

### **Learning Objective:**

Children will learn that germs are tiny living things that can make us sick.

### **Materials:**

- Crayons
- Colouring Sheets (see following pages)
- Paper

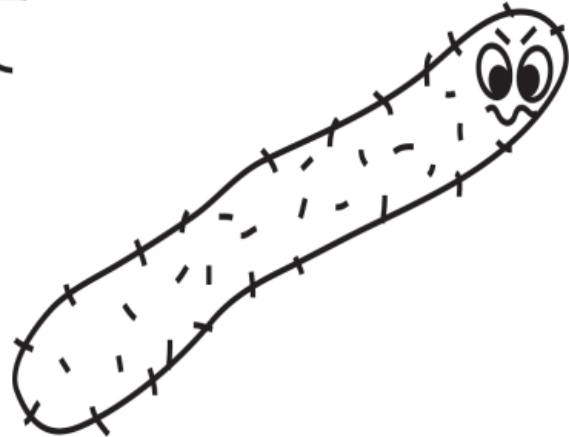
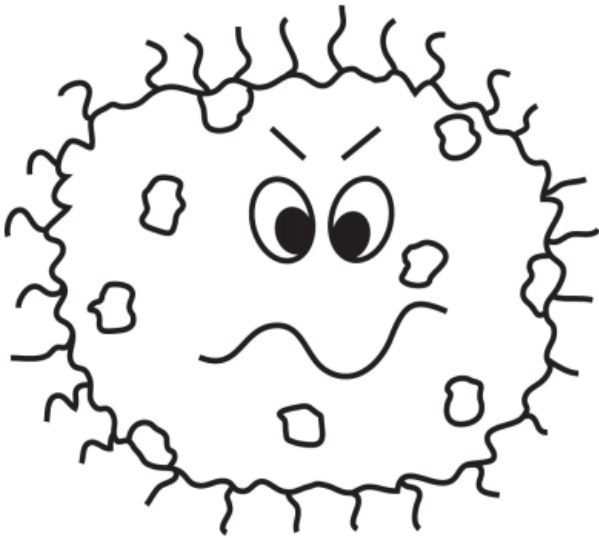
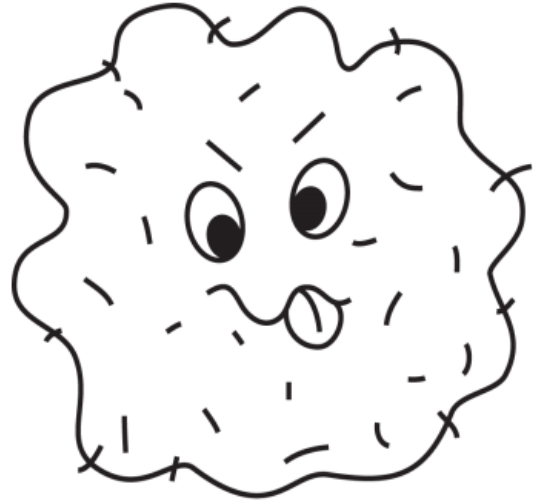
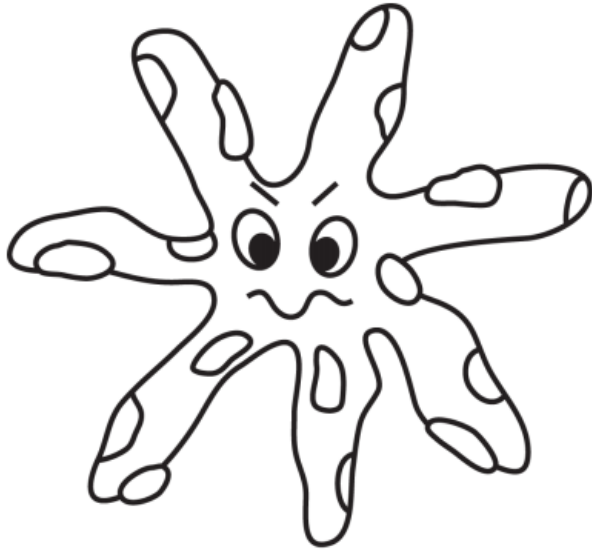
### **Method:**

1. The educator will ask the children if they have ever heard of germs before. They can ask the following probing questions:
  - a. Does anyone know what a germ is?
  - b. Has anyone ever seen a germ?
  - c. What does a germ do to people like me, you and our parents?
2. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
3. Using the colouring sheets with the germs, the educator will explain to the children that there are many types of germs.
4. The educator will provide each child with a colouring sheet to colour.
5. The educator can ask the children to talk with a partner about germs and their different shapes for a few minutes and then they can discuss as a class.
6. The educator will give the children a blank piece of paper to draw a germ of their own and give it a name.



COLOUR ME

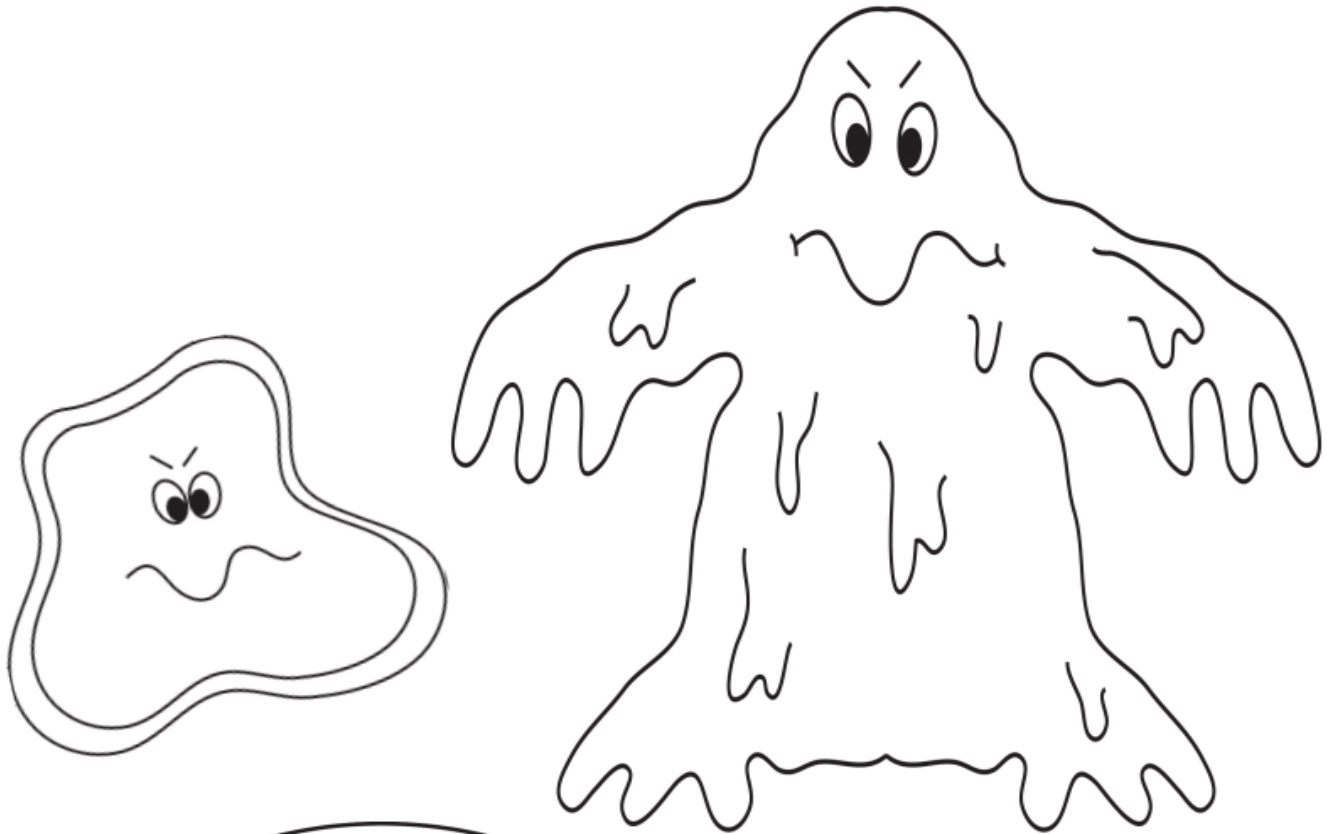
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For more educational printables visit [crystalandcomp.com](http://crystalandcomp.com).

COLOUR ME

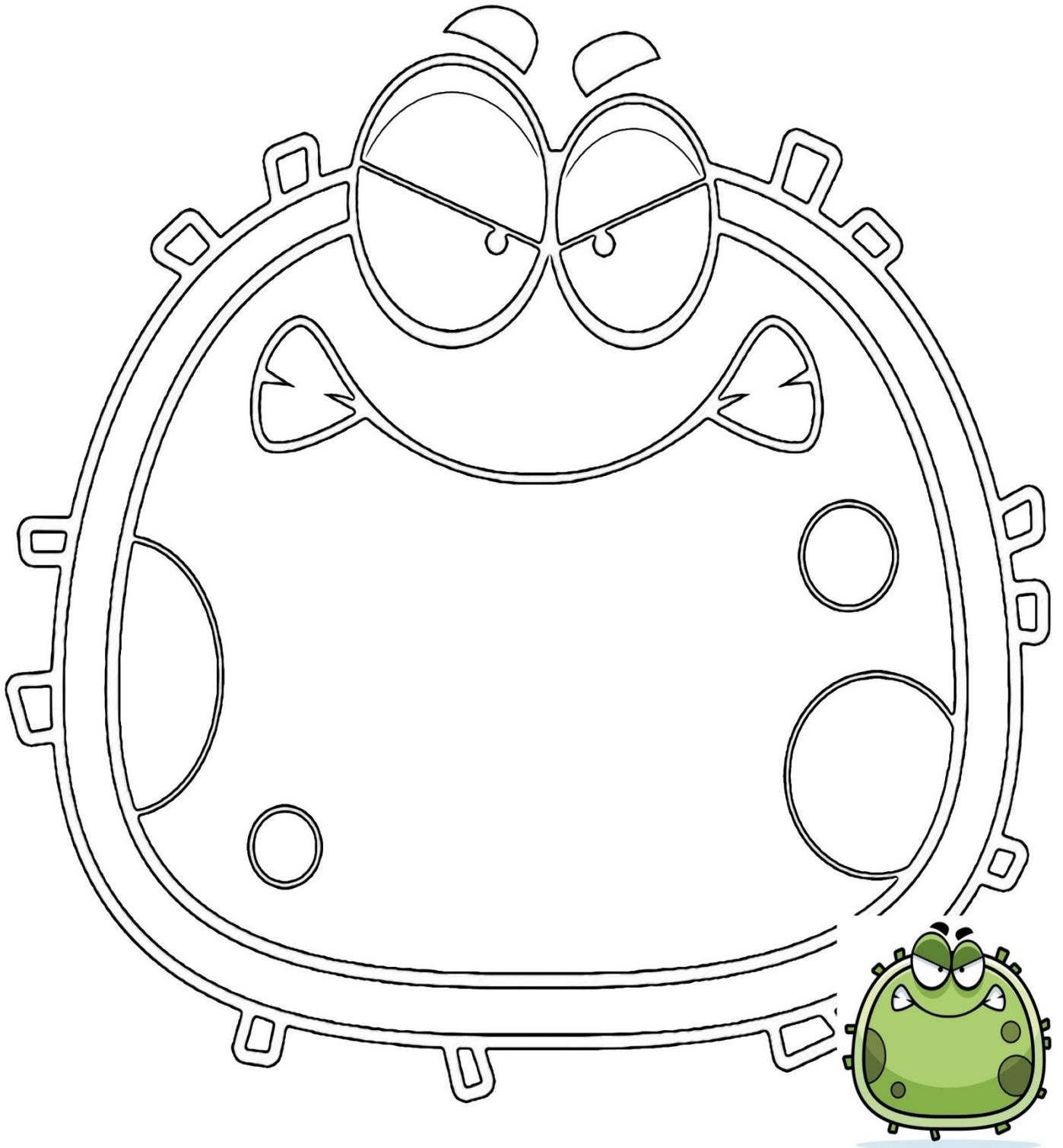
Name: \_\_\_\_\_



Micro-organisms do good things, like break down waste, but they can also make us sick.

COLOUR ME

Name: \_\_\_\_\_



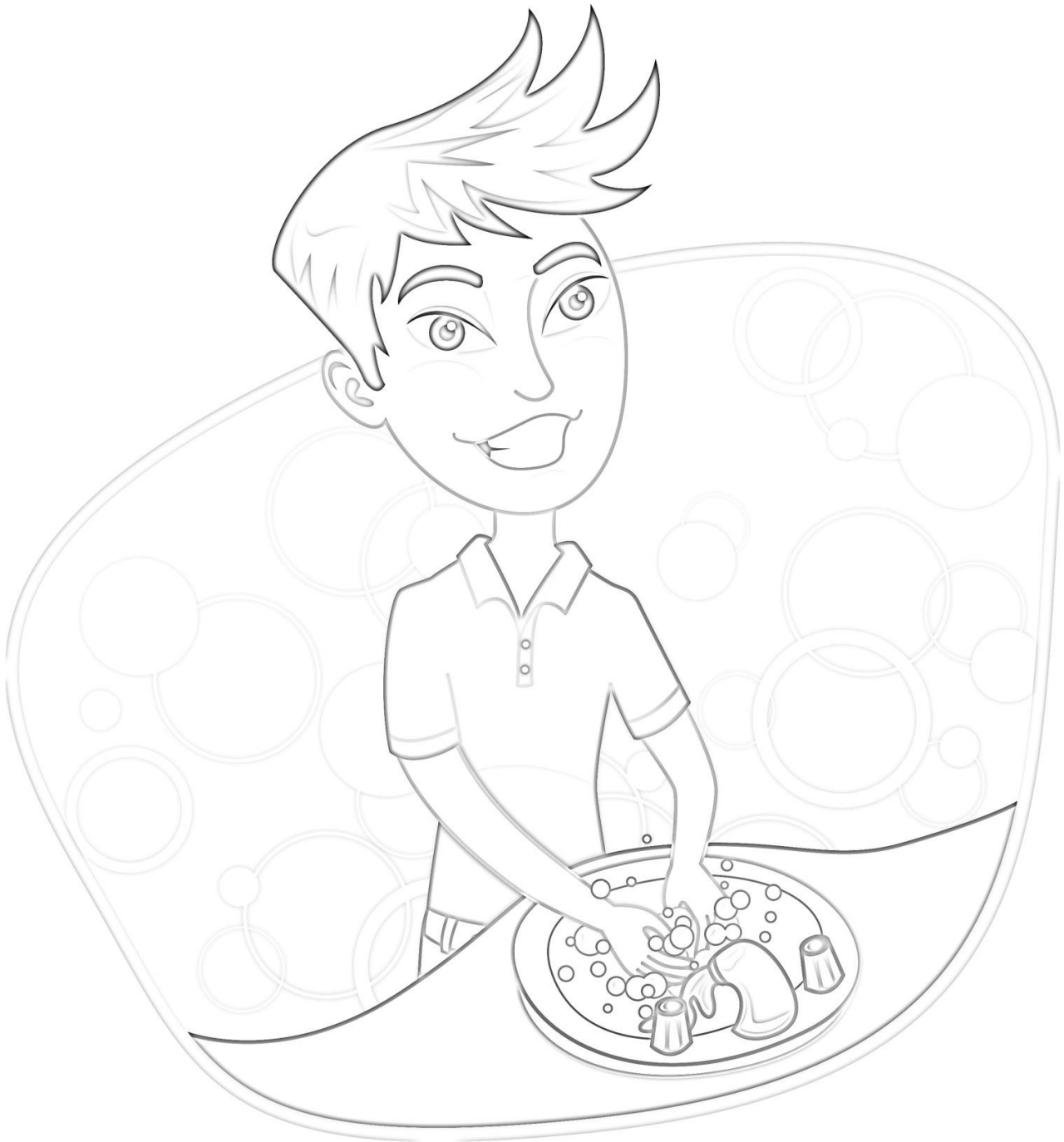
COLOUR ME

Name: \_\_\_\_\_



COLOUR ME

Name: \_\_\_\_\_



COLOUR ME

Name: \_\_\_\_\_



## LESSON PLAN #2: BUILD-A-GERM

15-20 minutes

### **Learning Objective:**

At the end of this lesson, the children will have a better understanding of germs and where they live.

### **Materials:**

- Styrofoam balls
- Pipe-cleaners
- Googly eyes
- Paint
- Glitter glue
- Pom-poms
- Liquid glue
- Printed photos of germs (see next page)

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will give children various art materials as listed above to create a 3D germ.
3. The educator will encourage children to design their Styrofoam ball however they believe germs look like.
4. The children will then place the "germs" around the classroom on surfaces where they believe germs like to live (excluding the floor and persons).
5. The educator will show children photos of germs (see next page) to compare to their created versions.





## LESSON PLAN #3: CREATE YOUR OWN GERMS

(Adapted with permission from Ottawa Public Health, 2013)

### **Learning Objective:**

Children will recognize and create germs using modeling clay.

### **Materials:**

- Modeling clay
- Handwashing sink
- Liquid soap
- Paper towels

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be all over hands and under fingernails, just like the clay and can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer. The educator will review proper steps of hand washing (see page 7).
2. Have children wash their hands as described on page 7.
3. The educator will provide children with modeling clay.
4. Using modeling clay, encourage children to design their germs however they believe germs look like.
5. The educator will have children demonstrate proper hand washing technique when washing off the clay.
6. The educator and children will discuss the level of difficulty of removing the clay from wrists, hands, fingers, and nails.

## LESSON PLAN #4: GERM SENSORY BIN

45 Minutes- multiple periods (needs a break in between)

### **Learning Objective:**

At the end of this lesson, the children will have a better understanding of how to get rid of germs using soap, water and sponges.

### **Materials:**

- Rubbermaid bin or sensory bin
- Water and sponges
- Play-dough, clay or something that will stick to object to model germs.
- Waterproof objects for children to clean- small action figures/dolls, blocks, Tupperware, Frisbee, etc.
- Hand washing sink
- Liquid soap
- Paper towel

### **Method:**

1. The educator will present all of the objects to the children. The educator will pass out one object per child/pair (depending on class size). The educator will also pass out small pieces of play dough/clay.
2. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
3. The educator will explain to the children that in this activity the play dough will be pretend germs. The educator will then let the children fill their objects with germs (play dough). Once the class is done, the children will sit their objects by a window to dry and harden for a period of time.
4. Once the play dough is dry, the children will wash the germs off of their objects.
5. The educator can set up multiple sensory bins or the children can take turns coming to clean their objects.
6. The children will clean their objects with soap and water. They should use the sponges to ensure their objects are extra clean. The children should dry their objects and then wash their own hands.
7. This lesson should end with a group discussion on hand washing and the five steps to healthy hands (see Hand Washing Steps, on page 7).

## LESSON PLAN #5: PIN THE SOAP ON THE GERM

15-30 minutes

### **Learning Objective:**

The children will learn that washing their hands with soap and water gets rid of germs.

### **Materials:**

- Poster of hand with germs (available for loan from the Health Unit)
- Pictures of liquid soap

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will review the proper steps of hand washing (see page 7).
3. The educator will have children take turns placing pictures of soap on the hand to get rid of all of the germs.

## LESSON PLAN #6: HOW CLEAN ARE YOUR HANDS? (GLO-GERM)

(Adapted with permission from Ottawa Public Health, 2013)

### **Learning Objective:**

The children will recognize that germs can be on their hands even though they cannot be seen and that hand washing can remove germs from hands.

### **Materials:**

- Glo-Germ Kit (available for loan from the Health Unit)
- Hand washing sink
- Liquid soap
- Paper towel

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will place a small amount of Glo-Germ on each child's hand and have the children rub the lotion all over their hands. Explain that, like the lotion, germs are on their hands although they cannot see them.
3. The educator will have children place their hands under the UV light (you may have to dim the lights in the room). The areas that have Glo-Germ will glow under the light.
4. The educator will review the proper steps of hand washing (see page 7) and have the children wash their hands. The educator will have the children return to look at their hands under the UV light again. There should be a significant reduction in the areas that glow.
5. The educator and children will discuss areas on their hands that are sometimes missed during hand washing (i.e. areas that continued to glow under the light). These are usually the thumbs, between the fingers, and around the fingernails. The educator will encourage children to pay extra attention to these areas whenever hand washing. Explain that, like germs, the lotion can be washed off through proper hand washing.

## LESSON PLAN #7: SICK SIMON READING WITH SPRAY BOTTLE

45 Minutes- 1.5 Hours

### **Learning Objective:**

The children will learn more about where germs come from and how they are spread.

### **Materials:**

- *Sick Simon* hard cover book or YouTube link.  
<https://www.youtube.com/watch?v=LIWXpiy8wwo>
- Computer and internet access (if using YouTube).
- Spray bottle filled with fresh clean water. Setting should be on a very fine mist.
- Cut out of a cartoon face (see next page). The educator will cut out a nose and use the spray bottle as a nose (put nozzle of spray bottle through the hole).

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will have the children sit in a circle on the carpet, or arrange their seats how you typically would for *story time*.
3. The educator will explain to the children that in this book there is a little boy who has a very bad cold- at this point introduce the *Simon Spray Bottle* to the children.
4. The educator or the YouTube video will begin to read the story, when book says "Achooo!" or insinuates/says that Simon has coughed/sneezed/spread germs in anyway, the educator will spray the bottle of water on the class. It is important that the spray bottle is on a very fine mist setting to mimic a sneeze or cough. With a class of younger children, you may warn the children that they could be sprayed if they are sitting close.



## LESSON PLAN #8: WHEN TO WASH (PICTURE MATCHING)

15-30 minutes

### Learning Objective:

The children will learn the proper moments for hand washing.

### Materials:

- Printed photos of activities (petting dog, playing on swing set, using toilet, eating food, playing sports, sensory table play, dirty hands, blowing nose) (see pages 26-33)
- Printed signs ("**BEFORE**" and "**AFTER**") (see pages 24-25)
- Tape

### Method:

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will review the proper steps of hand washing (see page 7).
3. The educator will post the "**BEFORE**" and "**AFTER**" signs on a wall or board.
4. The educator will show the children photos of activities one at a time.
5. After showing a photo of an activity, the educator will ask the children if they would wash their hands "**BEFORE**" or "**AFTER**" this activity. Tape the photo under or near the appropriate sign.

Note: Some of the activities may require handwashing "**BEFORE**" and "**AFTER**".

### Answer Key:

Activity	Before	After
Girl Petting Dog		X
Playground		X
Going to the Washroom		X
Eating	X	X
Playing Sports		X
Play Table (sensory table)	X	X
Dirty Hands		X
Blowing Nose		X



Before







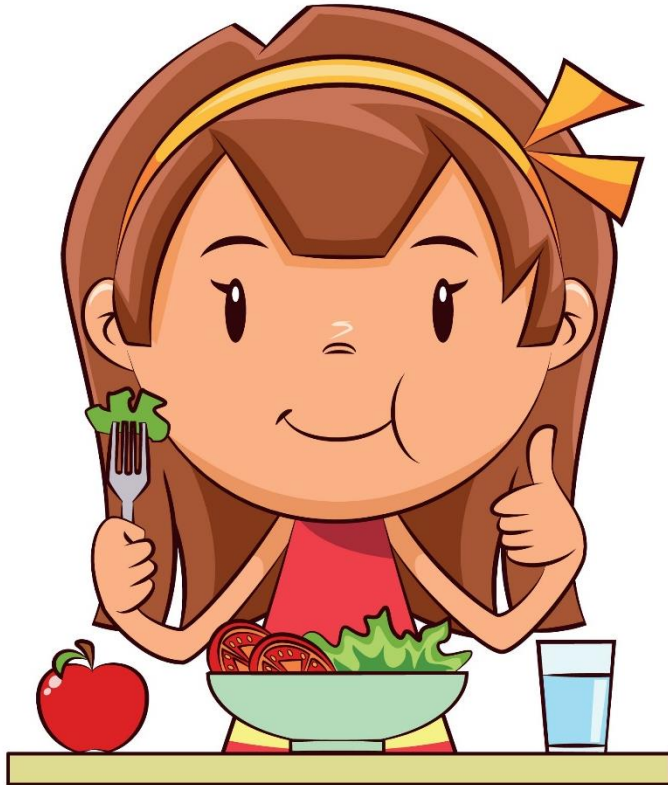
After





















## LESSON PLAN #9: HOW CLEAN ARE YOUR HANDS? (GLITTER GLUE)

(Adapted with permission from Ottawa Public Health, 2013)

### **Learning Objective:**

Children will learn how easily germs are spread, and how hand washing can prevent the spread of germs.

### **Materials:**

- Glitter Glue
- Hand washing sink
- Liquid soap
- Paper towels

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will review the proper steps of hand washing (see page 7).

### Part 1

1. The educator will place a small amount of glitter glue on the hands of 5 children.
2. The educator will ask the children to shake hands/high-five with two of their classmates that do not already have glitter.
3. The educator will ask the children to raise their hands if they have glitter on them.
4. The educator will then discuss how this is similar to how germs spread through hands (glitter represents germs).

### Part 2

1. The educator will ask all children to wash their hands using the proper steps of hand washing.
2. The educator will then ask the children to shake hands/high-five with each other again.
3. The educator will ask the children to raise their hands if they have glitter on them (no student should have any glitter on their hands).
4. The educator will then discuss how hand washing prevents the spread of germs.

## LESSON PLAN #10: HAND WASHING SONGS

20 – 40 minutes

(Adapted with permission from Ottawa Public Health, 2013)

### **Learning Objective:**

Children will learn songs to help them wash their hands for the proper amount of time (20 seconds).

### **Materials:**

- One of the songs or chants included on the next pages

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will review the five steps of proper hand washing (see page 7).
3. The educator will teach and sing the songs or chants listed on the following pages.
4. While children are simulating hand washing techniques, everyone sings or chants the same tune, for approximately 20 seconds.
5. To add to the experience for the children, the class can wash their hands in the class sink, or take turns in the bathroom.



**If You're Healthy and You Know It**

If you're healthy and you know it,  
Wash your hands!

If you're healthy and you know it,  
Wash your hands!

If you're healthy and you know it,  
And you really want to show it,

If you're healthy and you know it,  
Wash your hands!



# Soap and Water

(Tune: Twinkle, Twinkle)

Soap and water, that's the way,

You can wash the germs away.

Keep on washing - when you do,

You'll get rid of germs, it's true.

Now your hands are clean, here's why:

Germs are down the drain. Goodbye!



## Scrub-A-Dub

(Tune: Farmer in the Dell)

Turn the faucet on,  
Make sure the water's warm.  
Put the soap right on your hands,  
And make a soapy storm.  
Scrub-a-dub each hand,  
Each finger, thumb, and wrist.  
Scrub-a-dub all over them,  
So not a spot is missed.



## This is the Way We Wash our Hands

(Tune: Mulberry Bush)

This is the way we wash our hands

Wash our hands

Wash our hands

This is the way we wash our hands

Before we eat our food

Continue the song with variations:

- After we cough or sneeze
- After we use the bathroom
- After we play outside



# Wash, Wash, Wash Your Hands

(Tune: Row, Row, Row Your Boat)



Wash, wash, wash your hands  
Many times a day  
Scrub and rub and rinse and dry  
Germs will go away





## LESSON PLAN #11: CLEAN TAG

15-25 Minutes

(Used with permission from GOJO Industries, Inc., creators of PURELL Instant Hand Sanitizer, www.gojo.com, 2013)

### **Learning Objectives:**

Children will recognize that germs can spread easily from one to another and that the spread of germs is reduced by proper hand washing.

### **Materials:**

- Open area

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will review the steps and the purpose of proper hand washing- to stop the spread of germs (see page 7).
3. The educator will explain to children that they will be playing "Clean Tag". Four children will be selected to play special roles: two children will be disease-causing germs and two children will be the hand washers (soap & water). The educator will tell the remaining children to run away from the germs.
4. If one of the germs happens to tag them, they must immediately freeze and stand with their legs far enough apart to make a tunnel through which someone can crawl.
5. The hand washers are the only ones who can unfreeze (clean) the frozen (contaminated) children - by crawling through the tunnel between their legs.
6. "Cleaned" children are then free to run around again.
7. The educator will have the children trade roles at various points during the game.
8. The educator will have the children discuss what happened when they were tagged by the germs. What happens in real life? (They can make you sick).
9. The educator will discuss with children why hand washing is important.

## LESSON PLAN #12: HEALTHY HANDS MURAL

15-30 minutes

### **Learning Objective:**

The children will learn how to properly wash their hands.

### **Materials:**

- Poster paper
- Paint
- Hand washing sink
- Liquid Soap
- Paper towel

### **Method:**

1. The educator will explain to the class that germs are tiny living things that cannot be seen using their eyes, and that they are everywhere. The educator will explain that germs can make us sick. The educator will explain that germs can be removed from hands with proper hand washing techniques using soap and water or hand sanitizer.
2. The educator will review the proper steps of hand washing (see page 7).
3. The educator will help children apply paint to their hands, so they can add their handprint to the poster.
4. The educator will have children wash their hands, using the steps described on page 7.
5. The educator and children will discuss areas on their hands that are sometimes missed during hand washing (i.e. areas where paint remained). These are usually the thumbs, between the fingers, and around the fingernails. Encourage children to pay extra attention to these areas whenever hand washing. Explain that, like germs, the paint can be washed off through proper hand washing.