



Germ Detectives

The Big Idea

Children will learn that germs are tiny living things. In fact, they are so small we can't even see them. These tiny germs can live anywhere including on their hands and surfaces. Some germs can make them sick, so they have to learn to keep their hands and surfaces clean to help prevent bad germs from spreading.

Education Standards: (NHES) Health: 1.2.1, 1.2.3, 2.2.2, 5.2.1 (HSELOF) Head Start: P-ATL 13, P-MATH 3, P-MATH 5, P-MATH 10, P-SCI 1, P-SCI 6, P-PMP 2, P-PMP 4

GOALS AND SKILLS

Children will...

- Understand that germs live on hands and surfaces, but are too small to see
- Understand that to prevent and reduce the spread of germs, we must wash our hands and keep our hands out of our mouths, eyes, and noses
- Identify places and objects where germs live and hide
- Demonstrate their knowledge about germs, and how they are spread, through discussion

Supplies and Preparation:

- Cornstarch or flour
- Blocks
- Tray
- Clipboards
- Markers
- Chart paper with printed images or pictures from magazines of bathroom, playing outdoors, eating, and sneezing or coughing
- Make copies of handout **When to Wash Your Hands***

**NOTE: This handout is an optional extension.*



Background for Teacher: Learn more about the prevention of germs on hands and surfaces at [Lysol.com](https://www.lysol.com). Visit CDC's general handwashing information at [cdc.gov/handwashing/](https://www.cdc.gov/handwashing/). You can also access CDC's germ stats and scientific information at [cdc.gov/handwashing/show-me-the-science.html](https://www.cdc.gov/handwashing/show-me-the-science.html).

For tips on how to keep hands and surfaces clean in your classroom, go to [Lysol.com/healthyhabits](https://www.lysol.com/healthyhabits). There is also a handwashing poster you can print and display above the sink at [Lysol.com/healthyhabits](https://www.lysol.com/healthyhabits).

We encourage you to make the lesson plan your own to fit the needs and ages of the children in your classroom.

INSTRUCTION STEPS

1. What are Germs? Begin the discussion by inviting children to share what they think germs are. Go on to explain what germs are with the following facts:

- Germs are tiny living things that are all around us all the time
- Not all germs are harmful, but some can make us sick
- Germs can live anywhere like inside our bodies and on our hands and surfaces like tables, floors, and toilets
- Germs can get inside our body through our mouths, eyes, and noses
- Keeping hands and surfaces clean helps prevent bad germs from spreading

2. Germ Blocks: This fun activity will help children see how germs can live on surfaces and spread. Invite children to stand around a table. Explain that you will pretend that the powder in the bag, cornstarch or flour, represents germs. While children watch, cover blocks in the “germ powder.” Have them put one hand behind their back and then invite each child to pick up one block with one hand and hold it for just a few seconds. Ask the children to put the block back down on the tray and open their hand to show their palm. Ask, “*What happened to your hand? Where did the powder come from? Where did the ‘germs’ come from?*” The germs came from the blocks. Explain that like powder, germs can live on surfaces and stick to tables and floors as well as blocks, toys, and faucets.

Next, ask the children, “*What do you think will happen if you drop the block on the table?*” Demonstrate that germs will spread onto the table. Explain that like powder, germs can live on the surface and can remain on surfaces for a long time.

3. How Germs Spread: Explain that you will now show how germs spread. Ask, “*What do you think will happen when we clap our hands together?*” Tell them to clap their hands once and notice what happens to the other hand. “*Did the germs spread?*” Have children look at their hands again and ask them to explain where the powder originally came from (blocks) and how it traveled. Explain that we can spread germs by touching other body parts, objects or people with our hands. Another way that germs spread is when we sneeze or cough. Pretend you need to sneeze and clap your hands, making sure to show how germs travel through the air and spread when we don’t cover our mouths.

4. Germ Detectives: Explain that germs have places where they gather and hide. Some places have more germs than others. These germs can make us sick if we don’t remember to wash our hands after touching an area where germs live. Today we will look around the classroom for germs in hiding. Explain that the clues will lead us to times and places where we will find germs that can make us sick. We will then post signs to remind everyone to wash their hands so we can wash germs away and stay healthy.

Make a chart like the one below to tally and record the children’s responses. You can use printed images or pictures from magazines as visuals for the chart. After each clue is discussed, check off the last box to indicate germs were found at this location or time.

Clue #1: Germs are found in places that are frequently touched.*

**NOTE: Explain frequently means it is touched many times by a lot of people.*



Pictures	Tally	Number	Germs
Bathroom			
Door Knob			
Blocks			
Table			

Ask:

- “How many of you used the bathroom today?”
- “How many of you opened the door today?”
- “How many of you played with blocks today?”
- “How many of you worked at a table today?”

Clue #2: Animals and pets carry germs that can make us sick.

Pictures	Tally	Number	Germs
Have a Pet			
Playing Outside			

Ask:

- "How many of you have pets?"
- "How many played outside today?"

Clue #3: Your hands can have germs even when they look clean, especially after you eat, cough, or sneeze.

Pictures	Tally	Number	Germs
Eating			
Coughing			
Sneezing			

Ask:

- "How many of you ate breakfast this morning?"
- "How many of you coughed today?"
- "How many of you sneezed today?"

Now that children know where germs live, ask them to recall when and/or where they found germs. Post signs around these areas (bathroom, door, snack table, etc.) to remind children to wash their hands.

Teacher Tip: Ask for children's input when deciding where to post reminders for handwashing.

5. Review: On chart paper, post images of the following activities (using the bathroom, eating, sneezing, playing outside) as shown below. Read the following scenarios out loud. Ask children to tell you if handwashing should take place *before* or *after* an activity.

When to Wash Your Hands Scenarios

Tim will use the bathroom.

Tonya will eat a delicious apple.

***NOTE:** Explain the importance of washing hands **BOTH** before and after eating.

Maria sneezes.

Mel is playing outside.

Before	When to Wash Your Hands	After
Handwashing ----	Child leaving the bathroom	---- Handwashing
	Eating	---- Handwashing
	Sneezing	---- Handwashing
	Playing Outside	---- Handwashing

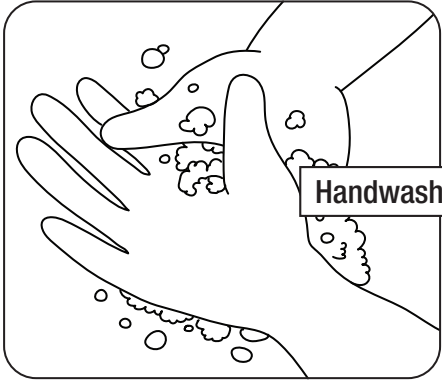

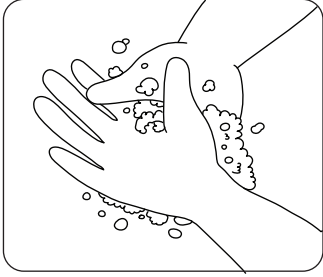

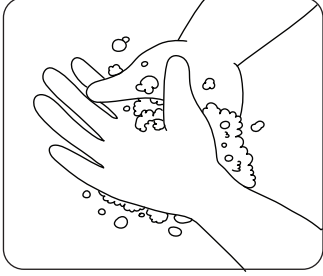

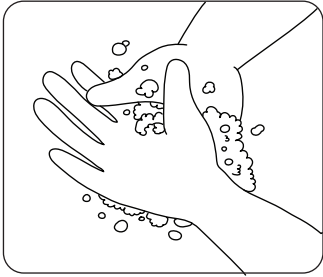

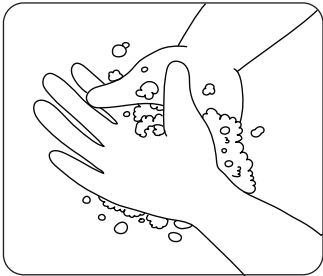
6. Extend the Lesson: Ask children to help create classroom rules or guidelines to help prevent the spread of germs in school. Make sure to include washing hands after using the bathroom, washing hands before eating, covering mouths when coughing and sneezing, etc. Have children draw pictures of the guidelines. Then, encourage them to sign a class pledge to keep their hands clean and prevent the spread of germs by following the guidelines. Post the class pledge, along with all of their drawings, on a bulletin board as reminders to prevent germs from spreading.

7. Home Connection: Have children make a list of places at home where germs live and share the list with their parents. Children can work with their families to create visual signs and reminders to post around the house. For example: in the kitchen near the countertops, in the bathroom, above light switches, etc.

As you are teaching healthy habits in the classroom, this is also a good time to pay attention to developmental milestones like “following two-step commands” or “showing more independence.” For more information and free materials on healthy child development for you and to share with parents, please visit: [cdc.gov/actearly](https://www.cdc.gov/actearly).

Handout: When to Wash Your Hands

Color the handwashing pictures and draw a line to show when handwashing takes place.

Before	When to Wash Your Hands	After
	 <p data-bbox="716 753 1052 787">Child leaving the bathroom</p>	 <p data-bbox="1170 753 1349 787">Handwashing</p>
	 <p data-bbox="716 1112 797 1146">Eating</p>	 <p data-bbox="1170 1112 1349 1146">Handwashing</p>
	 <p data-bbox="716 1474 829 1508">Sneezing</p>	 <p data-bbox="1170 1474 1349 1508">Handwashing</p>
	 <p data-bbox="716 1836 911 1870">Playing Outside</p>	 <p data-bbox="1170 1836 1349 1870">Handwashing</p>