

Teacher's Guide



Lesson Title

Tiny Germs, Big Help!: How Do Scientists Help Us Stay Healthy?

Big Idea (Say It All Together)

Scientists help keep us healthy.

Summary

It emphasizes simple language, movement, visuals, and short activities, and fits a 30–35 minute class period.

Learning Objectives (K–2 Friendly)

Students will:

- Learn that scientists study germs
- See that washing hands helps remove germs
- Practice thinking like a scientist by looking, noticing and doing

Students will:

- Say that scientists help people by solving problems by doing tests
- Show how to wash hands
- Point to which hands are cleaner

Materials

- Glitter or washable non toxic paint (small amount 1–2 tsp.)
- Soap and water
- Paper towels
- Chart paper or poster board
- Crayons
- Gloves and masks
- Sinks or pans
- Magnifying glass

Vocabulary

- Scientist – someone who learns new things (hand to head) about nature
- Germs – tiny things we can't see (pinch fingers)...Question: how do they find or look for them?
- Wash – clean with soap and water (rubbing hands)

(Do not over-emphasize spelling—focus on meaning.)

Teacher Tips for K–2

- Keep explanations under 20 seconds at a time
- Use repetition and call-and-response
- Focus on observing, not explaining why at a molecular level
- Explain that glitter represent germs but real germs are too small to see.



Alignment with NGSS

Asking questions and defining problems. Students will be able to:

- Plan and carry out investigations
- Analyze and interpret data
- Obtain, evaluate, and communicate information

Lesson Plan



1. Movement Warm-Up:

What Helps Us Stay Healthy? (5 minutes) Today we will learn how scientists help us stay healthy.

Ask students to stand and act out:

- “Show me how you wash your hands”
- “Show me how you sneeze into your elbow”
- “Show me how you rest when you’re tired”

Say:

“Scientists help us learn why these are healthy habits.”

2. Short Story: Meet a Scientist (5 minutes)

Tell a simple story:

“This is Jane. Jane is a scientist. Sam wants to know why people get sick. Sam learns that tiny germs may cause sickness.”

Ask:

- “Can we see germs?”
- “How do scientists learn about them?”

(Answer: by watching and testing)

Say:

“Scientists help us learn why these are healthy habits.”

3. Hands-On Activity that shows: Where Did the Germs Go? (10 minutes)

Step 1: Divide students into 3 groups. One group will wash hands with water, the other will wash with soap and water and one won’t wash at all (control).

Put a tiny bit (1 tsp) of glitter/paint on one student’s hands.

- “Can we see germs?”
- “How do scientists learn about them?”

(Answer: by watching and testing)

Say:

“These are pretend germs.”

Then have them touch a paper towel. Look for Germs (glitter) on the towel.

Ask:

- “Are the germs (glitter) all gone?”

Step 3: Repeat steps 1 with another member of the team, then..

Wash with soap and water for 20 seconds – recommended time for hand-washing.



Say:

"Let's look again!" Then touch a paper towel. Look for Germs (glitter) on your hand and on the paper towel.

Emphasize:

"Soap helps wash germs away."

4. Whole-Class Science Talk (5 minutes)

Draw three simple faces on the board: Count and write number of those that washed with soap and water, just water, or didn't wash hands.

- One with glitter still on hands "Who has glitter still on hands & on the towel?"
One with clean hands – Count and write numbers of those who have no glitter on hands.

Ask:

- "Which person has hands and towels that are cleaner?"
- "What helped?"

Repeat together:

"Soap helps wash germs away!"

5. Draw & Tell: I Am a Scientist (5–10 minutes)

Students draw:

- Hands with germs
- Hands after washing with water
- Hands after washing with soap and water

Sentence STEM

"I help my body stay healthy by _____."

Teachers or aides can write student words for them.

Family Connection (Optional Take-Home)

Send home one sentence:

"Today we learned that scientists study germs and that washing hands with soap helps keep us healthy."