Lesson Plans and Activities

Grades K–5

Some of these activities can be done independently by older students or as a whole class with younger children. The activities were intended for teachers to utilize in the classroom, but several can be implemented at home by students and parents. These activities align with state and national content standards for Science, Math, Health, Technology, Language Arts, Social Studies, and Fine Arts.

www.clevelandclinic.org/K-12
## Table of Contents

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>3</td>
</tr>
<tr>
<td>Activity 1: So Nice to Meet You???</td>
<td>4</td>
</tr>
<tr>
<td>Activity 2: How Clean Is It?</td>
<td>8</td>
</tr>
<tr>
<td>Activity 3: Introducing the Power Washers</td>
<td>12</td>
</tr>
<tr>
<td>Activity 4: How Long to Wash?</td>
<td>15</td>
</tr>
<tr>
<td>Activity 5: Healthy Hands, Healthy Schools</td>
<td>19</td>
</tr>
<tr>
<td>Activity 6: Does Hand Washing Really Help?</td>
<td>22</td>
</tr>
</tbody>
</table>
Overview

Cleveland Clinic is a nonprofit multispecialty academic medical center that integrates clinical and hospital care with research and education. Located in Cleveland, Ohio, it was founded in 1921 by four renowned physicians with a vision of providing outstanding patient care based upon the principles of cooperation, compassion, and innovation.

The Cleveland Clinic K–12 Education School Programs Department works to improve health and wellness, academic achievement, and career readiness for students in grades K through 12. The team leverages organizational resources and community partnerships to provide free authentic learning experiences that support student success, within and beyond the classroom. Tied to state and national academic standards – and delivered both on-site and online – the Department’s programs and resources have something to offer every student, everywhere.

The Science Internship Program and The Creative Learning Internship Program are nine-week, paid summer internships that give high school students opportunities to work and learn alongside Cleveland Clinic caregivers. Science Interns conduct real-world research in both clinical and non-clinical settings, and Creative Learning Interns work on high-level projects in fields such as media production, medical illustration, and marketing. Science Intern Ryan Graham’s research identifying the importance of continual hand hygiene training among healthcare professionals was one of the building blocks Creative Learning Gabriel Firestone used in developing Power Washers™.

Power Washers are hygiene superheroes who use music, humor, and hands-on activities to teach K–5 students the importance, technique, and science of proper hand washing. Their Webby Award-winning video and accompanying lesson plans provide educators and parents the tools needed to make learning about proper hand hygiene both fun and effective.
Activity 1: So Nice to Meet You???

In this activity, students will greet each other with handshakes to demonstrate how easily and imperceptibly germs (represented by a powder that fluoresces under ultraviolet light) are transmitted between people.

Duration: 30 minutes

Goals: Students will:

1) Understand that disease transmission is not always visible with the senses.
2) Realize that personal behaviors influence physical health.

Objectives: Students will:

1) Demonstrate how germs are spread via person-to-person contact.
2) Suggest ways to prevent spreading germs between people.

Science Concepts: Microbes & germs, disease transmission, recording data and observations

Mathematics Concepts: Counting, recording data and observations

Materials:

- Glo Germ mini kit (available at www.glogerm.com for approximately $10)
- Stop watch or clock
- Area for hand washing
- Paper & pencils

Note: If your budget prohibits you from purchasing the above items, contact your district science curriculum specialist or science teachers in the middle school or high school. Many schools have these materials in the upper grades. Another alternative is to contact the biology or health sciences department at a local college or university to borrow their materials.

Teacher Preparation:

1) Order Glo Germ mini kit no later than three (3) weeks before the activity to ensure that it arrives in time.
2) Select 1 to 3 students to serve as “infected” people; immediately before the activity, secretly apply Glo Germ gel or powder liberally to their hands. Inform these students that they should not give away their identity to other
students in the class. Students can act the part by occasionally sneezing or coughing into their hand.

Vocabulary:

**Germ(s)** – any tiny (microscopic) living thing(s) that causes sickness or disease in humans or animals (i.e., bacteria, viruses, fungi, parasites, etc.).

Classroom Activity:

1) Explain to students that they will be practicing how to greet another person politely by shaking hands and introducing themselves. Review and demonstrate the proper way to make an introduction by shaking hands.

2) Instruct students to keep track of the number and names of the students they “meet” by listing them in order on a piece of paper. (Note: this provides an opportunity for students to practice handwriting and spelling skills as well as counting and writing numbers.)

3) Allow students to practice their greetings and handshakes for two (2) minutes (time using a stopwatch or clock). During this time, the “infected” students (with Glo Germ on their hands) will be passing the “germs” to other students.

4) Walk around the room giving students feedback about their introduction and greeting techniques and remind them to record the name of each person with whom they interact.

5) Instruct students to return to their seats and count the number of students they “met” in the class. Students should record this number on their paper.

6) Explain to the students that they just participated in an exercise to show how easily germs, living things that cause disease, are spread from person to person.

7) Ask the students the following questions:

   - Who introduced themselves to the most people?
   - Who introduced themselves to the least people?
o What would happen if someone in the group was sick (e.g., had a cold or the flu)?
o Who would most likely become sick or infected?

8) Instruct the “infected” students to stand up.

9) Ask the students the following questions:
   o Who "met" one of these "infected" or "sick" students today?
   o Who thinks that they might be "sick" now, too?

10) Explain to students that there is a special, invisible gel or powder that was used in this activity to show how easily germs are spread between people. If there is gel or powder (AKA “germs”) on the students' hands, it will light up or glow under a special light. (Affirm to students that the gel/powder will not make them sick; rather, it is harmless and just used for pretending or demonstrating.)

11) Turn off the classroom lights and run the black light enclosed in the kit across the students' hands. If bright spots appear, then that student has been “infected” with the “germs.”

12) Ask the students the following questions:
   o How many students came in contact with the germs?
   o How many students did not come in contact with the gems?
   o If we can’t see germs, how do we know where they are?
   o What can we do to prevent spreading “germs” from one person to another? (Elicit the importance of thorough hand washing.)

Clean Up

Instruct students to wash their hands thoroughly to remove Glo Germ. Use the black light to check that all Glo Germ has been removed from students' hands.

Assessment

Keep a log of the number of people they interact with within one day using the following information – who, what, when, where, and if they appeared to be sick or healthy.

Count the total number of individuals, number of healthy individuals, and number of sick individuals encountered in one day.
Brainstorm actions that students can take in their daily lives to prevent illness, despite interacting with many healthy and sick people in one day.

**Homework**

Interview a parent, guardian, sibling, or family member about a time when they were sick:

Here are some sample questions:

- Tell me about a time when you were sick (cold, flu, virus, ear/sinus infection, etc.).
- How did you feel?
- How long were you sick?
- Did you need to see a doctor or nurse?
- How did you get better?
- Was the sickness caused by a germ?
- Do you know how you became sick?
- Could the sickness have been prevented?

Share the interview responses with your class. How were the interviews the same? How were they different?
Activity 2: How Clean Is It?

In this investigation, students will use growth of microbes on bread to estimate the “germiest” of areas in the classroom or school.

Duration: 30 minutes (day 1) + 15 minutes on subsequent days

Goals: Students will:

1) Become aware that microbes are found everywhere in abundance.
2) Express qualitative results quantitatively.

Objectives: Students will:

1) Conduct an experiment to qualitatively determine classroom or school locations with high microbial growth.
2) Use magnifiers to observe microbial growth on bread.

Science Concepts: Microbes & germs, making predictions, laboratory safety, making observations

Mathematics Concepts: Estimation, fractions and/or percentages, recording data and results

Materials: White bread slices (4 per group) + 1 per student (for homework)
Zippered sandwich baggies (4 per group) + 1 per student (for homework)
Magnifiers (1 per group)
Access to area for hand washing
Disposable (non-latex*) gloves (optional)
Sharpie markers

*Latex is a common allergen; therefore, non-latex gloves are recommended.

Notes:

1) Multigrain bread will also work; however, it may take longer for bread to show growth and growth may be more difficult to see.
2) **Safety Note:** Keep bread inside the bag to avoid exposure to unknown and known microbes. Dispose of bread and baggy into trash.
3) This activity will work with fewer magnifiers. Students will just need to share with a larger number of students to observe growth.
Teacher Preparation:

1) Purchase bread and sandwich bags.
2) Locate magnifiers.

Vocabulary:

*Microbe(s)* – tiny living things; may or may not cause sickness

*Mold* – a microbe that grows on bread and other moist places

*Prediction* – a guess as to what will happen

*Experiment* – a way to test a prediction using a set series of steps

Classroom Activity:

1) Ask students the following questions:
   - At which places in the classroom (or school) would you find the most germs? *(Possible responses – bathroom, lockers, doorknobs, etc.)*
   - Why do you think these places would have the most germs? *(Possible responses – high traffic, dirty people and things)*
   - How would you test your prediction? *(Design an experiment)*

2) Divide students into groups of four students. Assign each student one of the following roles:
   - Principal Investigator (1) – acts as group leader, obtains materials, handles group disagreements
   - Scientists (2) – perform experiments, collect data, make suggestions to group
   - Scientific Writer – records data and interprets results

   **Note:** In science, roles often overlap.

4) Instruct each group of scientists to select a group name. Add “Lab” to the end of each name. That is how the group will be identified in the future.

5) Instruct students to select three (3) places to test for microbial growth.
- Swab each location completely with the entire surface (one side) of one slice of bread.
- Place each slice of bread into a separate plastic baggy and close the zip lock seal. Use a Sharpie marker to label the baggy with the location where the swab was taken. Also write the date and the group's name on each baggy.
- Remind students that they should not open the baggies.
- Place the last slice of bread directly into the bag without swabbing it anywhere. This bag will serve as the control. No or minimal growth will be expected on this piece of bread.
- Store all of the baggies containing bread samples in a dark place such as a cardboard box with a lid, or a drawer for approximately 24 hours. Keep bags out of direct sunlight (ultraviolet light and high temperatures inhibit bacterial and fungal growth).

6) Checking for growth

- Remind students to keep bread inside plastic baggies.
- Through the baggy, observe each slice of bread for growth.
- Is growth present? Indicate yes or no. If yes, have older or more advanced students indicate how much using a fraction or percent (e.g., about one-quarter or 25% of the bread is covered).
- Create a data table and record results (see sample below).
- Repeat at 48 and/or 72 hours. Additional time may be needed to produce growth depending on humidity levels.

7) Interpreting results

- Which location produced the most microbial growth? Why?
- Which location produced the least growth? Why?
- Compare your group’s results with the results of other groups in the class.

Clean Up:

1) Dispose of moldy bread and baggies in the regular trash.
2) Wash hands thoroughly after handling bread.

Assessment:

Present the results of their experiment as a group to the class using presentation software programs, poster board, Smart board, chalk board, or other medium. Encourage students to describe and display scientific results in unique ways.
Homework:

Each student will take one slice of bread home to swab one location. Place the slice of bread inside the baggy and label it. Incubate this bread overnight and observe the results.

- Which areas of the home did students select to swab?
- Which areas of the home produced the most/least growth? Why?

Sample Data Table:

<table>
<thead>
<tr>
<th>Date</th>
<th>Day #</th>
<th>Location</th>
<th>Growth?</th>
<th>Fraction</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 17</td>
<td>1</td>
<td>Control</td>
<td>N</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>2</td>
<td>Control</td>
<td>N</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sept. 19</td>
<td>3</td>
<td>Control</td>
<td>Y</td>
<td>1/10</td>
<td>10%</td>
</tr>
<tr>
<td>Sept. 17</td>
<td>1</td>
<td>Sink</td>
<td>Y</td>
<td>1/2</td>
<td>50%</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>2</td>
<td>Sink</td>
<td>Y</td>
<td>¾</td>
<td>75%</td>
</tr>
<tr>
<td>Sept. 19</td>
<td>3</td>
<td>Sink</td>
<td>Y</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Sept. 17</td>
<td>1</td>
<td>Desk</td>
<td>N</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>2</td>
<td>Desk</td>
<td>Y</td>
<td>¼</td>
<td>25%</td>
</tr>
<tr>
<td>Sept. 19</td>
<td>3</td>
<td>Desk</td>
<td>Y</td>
<td>½</td>
<td>50%</td>
</tr>
<tr>
<td>Sept. 17</td>
<td>1</td>
<td>Locker</td>
<td>N</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>2</td>
<td>Locker</td>
<td>N</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sept. 19</td>
<td>3</td>
<td>Locker</td>
<td>Y</td>
<td>1/10</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: These data are fictitious and hypothetical. Your results will be unique to your school environment.
Activity 3: Introducing the Power Washers

In this activity, students will view the Power Washers™ video to observe proper hand washing procedures.

Duration: 30 minutes (one day)

Goals: Students will:

1) Understand that microbes cause sickness and disease.
2) Incorporate proper hand washing procedures in their daily lives.

Objectives: Students will:

1) Watch the Power Washers video to observe proper hand washing procedures.
2) Identify the main characters and their roles in disease transmission and prevention.
3) Read and recite lyrics to the "Power Washers Theme Song" to review proper hand washing procedures.
4) Model proper hand washing procedures with classmates.

Science Concepts: Microbes and germs, disease transmission, infection control

Materials:

Power Washers video
Lyrics to “Power Washers Theme Song”
Paper
Markers, colored pencils, or crayons

Cast of Characters:

*Sally Salmonella* – She looks pretty; however, looks can be deceiving. Sally likes to hang out on uncooked meat, salad bars, spoiling food, kitchen counters, refrigerators, and pet cages (especially one for reptiles like snakes, turtles, and lizards). She can give you an upset stomach with nausea, vomiting, and/or diarrhea.
Evil E. Coli – Evil likes to hang out in the same locations as Sally Salmonella. Lately, he has been seen lurking in bagged spinach, tomatoes, peppers, and ground meat. He likes to vacation on beaches after storms. A meeting with Evil may cause fever, upset stomach, nausea, vomiting, and/or diarrhea.

Menacing Mycosis – Mycosis is a fungus that lives in dark, moist areas of homes and on people. When he is not lurking behind water-damaged walls, he may be vacationing in between toes. He can make people cough or cause skin problems.

Super Soap – Leader of the Power Washers; composed of detergents that break down microbes; works with Water Women to generate bubbles that help to defeat microbes.

Water Woman – Maximizes the use of her physical properties to inhibit microbes. In liquid form, she washes microbes down the drain. As a solid, she slows down microbial growth by freezing. As a high temperature gas, she destroys microbes where they live. Her code name is H₂O because she is composed of two hydrogen atoms and one oxygen atom.

Touchy Towel – Touchy “wraps up” the hand washing procedure by removing lingering microbes from the hands with a bit of friction.

Classroom Activity:
1) Show the Power Washers video.
   • Encourage students to sing and follow hand motions.
2) Discuss the video with the students:
   • Who are the characters?
   • Which characters are bad?
   • Which characters are good?
   • Why is hand washing important?
   • What is the best way to wash your hands?
3) Teach the students the Power Washers lyrics and hand motions.
   • Encourage students to model hand washing with each other.
4) Replay the video. Encourage students to sing and participate.
5) Have students wash their hands. Encourage students to remind each other of proper hand washing procedures.

Assessment:

Draw pictures of the Power Washers working to keep hands clean and keeping people safe. Have students explain their artwork to others (written, verbal, or both.

Use creativity to write and illustrate a new adventure for the Power Washers. Illustrate your story.

Write a poem or create a skit about the Power Washers and their quest for clean hands.

Homework:

Share your drawing, story, poem, song, or play with your parents, guardians, and/or siblings. How did you convey the importance of handwashing to your family?
Activity 4: How Long to Wash?

In this activity, students will determine the amount of time necessary to wash their hands completely.

Duration: 30 minutes

Goals: Students will:

1) Determine the length of time required to wash hands completely.
2) Understand how proper hand washing reduces the spread of disease.

Objectives: Students will:

1) Predict the length of time required to wash hands completely.
2) Test their predictions as they demonstrate proper hand washing procedure.
3) Use a stopwatch to keep time.
4) Create a histogram to graphically represent data.

Science Concepts: Microbes and germs, infection control, making and testing predictions

Mathematics Concepts: Making and testing predictions, estimating, counting, graphing

Materials:

Tempera or other washable, non-toxic paint
Paper towels
Soap
Area for hand washing
Stopwatches (one per pair of students)
Note cards (one per student
Masking tape
Graph paper
Colored pencils
Foil stars or stickers
Classroom Activity:

1) Ask students what they learned about the importance of hand washing from watching the Power Washers video. (Take responses from students.)

2) Ask students how long it would take for a person to wash their hands completely in order to eliminate all microbes?
   - Take responses from students.
   - Write several predictions on the board.
   - Use a stopwatch to demonstrate the passage of time for the responses suggested by the students.
   - Have students vote for the best length of time for hand washing.
   - Keep tallies of the number of students making each prediction.

3) Inform students that they will now be testing their predictions. They will be doing a hand washing experiment to determine how long it takes to completely clean their hands.
   - Divide students into pairs (one timer, one washer, and then switch).
   - Instruct students on how to use the stopwatch to start and stop time.
   - Apply a quarter-size amount of paint to the washer's hands and spread the paint around until hands are covered and dried completely.
   - Washer – washes hands using standard procedure (warm water, soap, rinse).
   - Timer – starts stopwatch when hand washing starts, stops stopwatch when no paint is visible on the washer’s hands.
   - Record the number of seconds required for hand washing on the index card (keep cards horizontal; the number can take up the entire card).
   - Switch roles of the washer and timer.

4) Create a floor or board histogram of the time required to wash hands (see sample below).
   - X-axis = time, y-axis = frequency (number of students with the same response).
   - Count the number of students (or cards) for each time (column).
The time with the greatest number of responses = minimum time required to wash hands completely (or, if multiple times have the greatest responses, assist students in determining the range or interval of acceptable times for hand washing).

5) Assist the class in determining which amount of time would be enough for hand washing by examining the histogram data (usually 20 to 30 seconds).

- Encourage students to wash for this length of time in the future.
- Time this interval using the stop watch for the students.
- Songs like “The ABCs,” or “Happy Birthday” can be sung during hand washing to fill the duration of time for the students.

6) Compare results with predictions.

- Ask students how their results compared with their predictions generated earlier from the list written on the board. Was the time required to wash hands completely greater than, less than, or equal to what they predicted?

Clean Up

Wipe up paint, water, and soap residues.

Assessment:

Create a histogram on graph paper using the data generated in class on hand washing. Place a star above the time that is required to wash hands completely. Ask students what they plan to do in the future to make sure that they wash their hands long enough.
Homework:

Teach proper hand washing techniques to your parents, guardians, siblings, other family members, and friends.

Sample Histogram:

<table>
<thead>
<tr>
<th>Time(s) Required to Wash Hands Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td># of students</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time (in seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
</tr>
</tbody>
</table>

Note: These data are fictitious and hypothetical. Your results will be unique and may look completely different. Interpretation: 19 students timed how long it took to completely wash paint from their hands. The greatest number of students (6) required 20 seconds to wash hands completely, indicating that it takes around 20 seconds for a student to wash his/her hands completely and practice appropriate hand hygiene.
Activity 5: Healthy Hands, Healthy Schools

Regular hand washing can decrease sickness at home, school, and work. Proper hand washing techniques can even save lives by preventing severe illnesses. Students in schools and day care centers can teach their peers about proper hand washing techniques in order to decrease the incidence of disease at these locations. In this activity, students will design, develop, and implement a hand hygiene campaign for school and home.

**Duration:** One to several hours (one to multiple days)

**Goals:** Students will:

1) Develop and implement a hand hygiene campaign for their school.
2) Use peer-to-peer teaching to facilitate hand washing instruction.

**Objectives:** Students will:

1) Instruct peers in proper hand washing techniques.
2) Identify locations for posting hand washing educational materials.
3) Share knowledge of hand hygiene with others at school and at home.

**Science Concepts:** Microbes and germs, disease transmission, infection control

**Mathematics Concepts:** Counting, recording data

**Materials:**

- Power Washers posters (lamination optional)
- Power Washers video
- Poster paper
- Markers
- Colored pencils
- Masking tape
- Computer with Internet access

**Classroom Activity:**

1) Review — Ask students to recall what they have learned about hand washing from the Power Washers and in previous activities.
2) Planning the hand hygiene campaign

- Inform students that they will now become the teachers and share their information with other students, teachers, and staff in the school.
- Which students, teachers, staff, and parents are they going to teach about hand washing? In other words, who is the target audience for the campaign?
- How are they going to teach the others? Through songs, posters, skits, presentations, or all of the above?
- Where to hang the posters? (Above sinks, bathroom stalls, cafeteria, locker rooms, vending machines, etc.?)
- Who should watch the Power Washers video? (Certain classes, all students, teachers, staff, parents?)
- Conduct any additional information gathering research using the internet or other resources.
- Design and create your own educational materials on hand washing (e.g., posters, banners, brochures, stickers, etc.).
- Be creative!
- Notify the Cleveland Clinic K-12 School Programs team about your hand hygiene campaign inspired by the Power Washers (www.clevelandclinic.org/K-12 or 216-448-0602).

3) Implementing the hand hygiene campaign

- Share your hand hygiene campaign plan with your principal or administrator. Ask permission to implement your campaign within the school and beyond.
- Show the Power Washers video to other students, teachers, and staff in your school or other schools.
- Teach the lyrics of the “Power Washers Theme Song” to others.
- Instruct others in proper hand washing procedures and offer tips.
- Share your educational materials with others.
- Keep count of the following data for your campaign
  - Number of students reached
  - Number of adults reached
  - Number of posters distributed
Assessment:

Evaluate the effectiveness of your hand hygiene campaign by answering the following questions:

- How many students and adults did your hand hygiene campaign reach?
- How did you feel overall about your hand hygiene campaign?
- What were the good things about it?
- What were some things that could be better?
- Do you think that others learned from you about hand washing? Why or why not?

Homework

Extend your hand hygiene campaign from school to home. Share proper hand washing procedures with family and friends. Hang Power Washer posters in key locations in your home to remind family members and friends to wash hands.
Activity 6: Does Hand Washing Really Help?

This activity will need to be done at least 4–6 weeks after the implementation of the school-wide hand hygiene campaign. Prior to the activity, the school attendance rates from the same 4–6 week period of the previous school year will need to be obtained.

Duration: 45 minutes
Goal: Students will use school attendance data to evaluate the effectiveness of their school hand hygiene campaign.

Objectives: Students will:

1) Create a bar graph of monthly attendance data.
2) Compare attendance rates before and after implementation of their hand hygiene campaign.

Science Concepts: Microbes and germs, disease transmission, infection control, interpreting data

Mathematics Concepts: Recording data and observations, interpreting data, graphing

Materials:

Graph paper
Colored pencils or markers
Attendance statistics (see Teacher Preparation below)

Teacher Preparation:

Prior to starting this activity, obtain monthly attendance rates for the school for the previous year (prior to implementing hand hygiene campaign) and for the current year (after implementing the hand hygiene campaign). Some possible statistics to use are the number of students present or the number of students absent per month.

Classroom Activity:

1) Introduction

   • Recap the events of the students’ hand washing campaign.
Explain to students that they can use student attendance numbers (number of students present or absent during the month) to examine the effectiveness of their class hand hygiene campaign. If there are fewer absences this year compared to last year, perhaps the hand hygiene campaign helped with keeping students healthy.

2) Creating a bar graph of attendance data.

- As a class, create a table for last year’s attendance data using the same 4–6 week timeframe that you will be comparing in the current year. For each of the 4–6 weeks in the previous school year, record the number of students absent last school year.
- Create a table for current year’s attendance data. For each in the current school year, record the number of students absent.
- Create a bar graph with the number of weeks on the x-axis and number of students absent on the y-axis. Use a different color to represent the data for each year.
- Each student can create their own bar graph using graph paper and colored pencils/markers.

3) Analyzing your data

- Which weeks had the most/least number of students absent? Why do you think so? (Highest bars = most absences, lowest bars = least absences.)
- Which year (last year or this year) had the most/least number of students absent? Why do you think so?

Assessment:

Examine the bar graph that the class created and answer the following:

- Did the hand hygiene campaign work? How do you know?
- If it worked well, why do you think it was successful?
- If it did not work, why do you think so?

Extensions:

Challenge another class in your school, or school in your district, for the fewest number of absences due to illness. Follow proper hand washing procedures and track weekly attendance rates.
Homework:

Interview your parents and/or guardians, older siblings, or other family members. Has learning and/or emphasizing proper hand washing procedures reduced the incidence of illness in students’ homes? Record your results and share with the class.

Sample Tables and Graphs

<table>
<thead>
<tr>
<th>Weeks (dates)</th>
<th>Students Absent Last Year</th>
<th>Students Absent This Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week #1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week #2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week #3</td>
<td></td>
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</tr>
<tr>
<td>Week #4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week #5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week #6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comparison of Student Absence Rates

Note: This data is fictitious and purely hypothetical. Your attendance rate results may look similar or completely different.