Communicable Diseases
CURRICULUM GUIDE
Lessons for K-5 Classroom Teachers
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Communicable Diseases Lessons:
Kindergarten – 5th Grade
### Communicable Diseases Lessons

**Kindergarten**

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</table>
| • LT-I will learn how to keep my class and myself healthy.  
• SC-I can explain and show what I can do to stop diseases from spreading. | • Spray Bottle with water  
• Copies of Hand Washing Concept Map  
• Copies of Hygiene Posters (print a few posters for your classroom) | • Hand Washing Concept Map  
• **Differentiation/Extension:** **review individual education support plans for scholars receiving ELL/SSS services** |

#### Standard(s):

- **Standard 1:** Students will comprehend concepts related to health promotion and disease prevention to enhance health.
  - Recognize basic hygiene practices. H1.W2.Ka
  - Understand germs can cause diseases. H1.W3.Ka
  - Identify ways germs are transmitted. H1.W3.Kb
  - Describe symptoms that occur when a person is sick. H1.W3.Kc
- **Standard 3:** Students will demonstrate the ability to access valid information and products and services to enhance health.
  - Identify trusted adults and professionals who can help promote health. H3.W5.K

#### Lesson Time Frame: 30 minutes

**Warm Up:**

**Diseases Discussion**

- Say “Let’s brainstorm: What is disease?”
- Record students’ ideas. In brainstorming, students will come up with many ideas about disease. Some concepts that you want to emerge include:
  - Disease is caused by bacteria and viruses (also fungi and protozoa, but these are not important for this age group)
  - Diseases make you feel sick
  - Many diseases can be caught from other people
- Affirm their responses and write a shared definition for disease on the board: “A disease is an illness or condition that stops the body from working normally.”

**Differentiation/Extension:**

- 

**Activities:**

**How Viruses Spread Demonstration**

- Ask students to raise their hand if they have ever had a cold
- **Talking Points**
  - Most colds are caused by viruses. Viruses are germs that cause disease. Viruses are very tiny and cannot be seen without a microscope.
  - There are hundreds of types of viruses. There are over 200 types of viruses that can cause the common cold! Other viruses cause the flu, mumps, chicken pox, and other diseases.
  - Many viruses that cause disease can live in the air or on the surfaces of things around us. You can catch the flu or a cold just by being around someone who has the disease. You can also catch those diseases by touching a pencil, a cup, or even a tissue that the sick person has used.
  - Most diseases caused by viruses only last a few days or weeks. The body fights off the disease and destroys it. There are not medicines available to cure all viruses, most medicines only help with the symptoms.
  - Vaccines can prevent some diseases. Years ago, polio was a deadly disease caused by a virus. Scientists invented a vaccine to protect against many viruses. You were probably vaccinated for polio, and other diseases like chicken pox, measles, and mumps before you started school. This is one of the reasons we don’t often hear about epidemics in our country anymore.
How does a virus spread?

Talking Points
- A virus can spread in many ways. They can travel through the air, in contaminated food or water, or infected body fluids like blood.
- Let’s look at several ways a virus might travel through our classroom.

Visual Demonstration
- Hold up the spray bottle filled with water. Say “The liquid in the bottle represents the cold or flu viruses.”
- Turn the nozzle so it faces the whiteboard, a countertop, or a window. Squeeze the trigger on the bottle and spray some of the water.
- Say “Did you see the water coming out of the bottle? Cold and flu viruses spray into the air in a similar way when a person with a cold or flu sneezes or coughs. If someone nearby breathes in the viruses, that person may catch a cold or flu.”
- Say “Look at the wet marks (where you sprayed). They represent the viruses that land on surfaces. Even after the water has dried, some viruses may still be there. If a healthy person touches a surface that has the viruses, and then touches their eyes, nose, or mouth, the viruses can enter the healthy person’s body and make them sick. This is an example of one way that a virus can be spread.”

Check for Understanding
- How can a person with a cold or the flu avoid spreading viruses?
  ▪ Have students discuss prevention and hygiene techniques such as washing hands well and often, sneezing/coughing into their sleeves, discarding of tissues, etc. Demonstrate how to do these things and have students copy your motions.
- How can a healthy person keep from getting cold or flu viruses?
  ▪ Have students discuss the importance of getting enough sleep, eating healthy foods, getting enough exercise, not touching used tissues, washing hands well and often, etc.

Hand Washing Concept Map
- Pass out copies of the Hand Washing Concept Map. Model under the document camera how to fill out the concept map as you go
- Say “Hand washing is the most important step for reducing the spread of disease.”

How should we wash our hands?
- Wet hands with warm running water
- Put soap on your palms
- Rub hands together to make a lather
- Scrub hands as you say the ABC song
- Rinse soap off with warm running water
- Dry hands with a clean towel. Don’t dry hands on clothing.

Why is it important to wash our hands?
- It is the most important way to reduce the spread of disease

When should we wash our hands?
- After touching animals
- Before eating
- After using the rest room

What can we do if we need to wash our hands and there is no sink or hot water?
- Use hand sanitizers if there is no way to wash your hands

Differentiation/Extension:

Wrap Up:
Post Signs in the Classroom
- Show scholars the signs you chose to print reminding them how to wash their hands and about other ways to stop the spread of germs.
- Post several signs around your classroom
**Differentiation/Extension:**

- 

**Vocabulary:**
- Disease – an illness or condition that stops the body from working normally
- Germ – a tiny organism that causes disease
- Hygiene – regular practices for staying healthy. Examples include brushing teeth, flossing, bathing, and washing hands.
- Cultural practices and social norms for hygiene can vary significantly between countries, regions, and communities.
“Hand Washing Concept Map”

After learning all about washing our hands, let’s fill in this concept map!

When should we wash our hands?

How should we wash our hands?

What can we do if we need to wash our hands and there is no sink or hot water?

Why is it important to wash our hands?
"Procedimiento para el lavado de manos"

¡Después de aprender todo acerca de lavarnos las manos, completemos el procedimiento!

¿Cuándo debemos lavarnos las manos?
¿Cómo debemos lavarnos las manos?
¿Qué podemos hacer si necesitas lavar las manos y no hay agua caliente si un lavamanos?
¿Por qué es importante lavarnos las manos?
Stop Germs, Stay Healthy!

Wash hands often for 20 seconds

Cover coughs and sneezes

Can't wash? Use alcohol-based hand sanitizer

When sick, stay home

¡Detenga los gérmenes, manténgase saludable!
- Lávese las manos frecuentemente por 20 segundos
- Use gel a base de alcohol, si no se puede lavar las manos
- Cubra su boca al toser y estornudar
- Quédese en casa cuando esté enfermo
Help prevent the spread of respiratory diseases like COVID-19.

Avoid close contact with people who are sick.

Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

Avoid touching your eyes, nose, and mouth.

Clean and disinfect frequently touched objects and surfaces.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.

For more information: www.cdc.gov/COVID19
**Communicable Diseases Lessons**  
**1st Grade & 2nd Grade**

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| • LT-I will learn about how to stop diseases from spreading.  
• SC-I can write and draw a booklet to teach others how to stop diseases from spreading. | • Spray Bottle with water  
• 1 sheet of construction paper per student  
• Blank sheets of paper for booklets  
• Stapler  
• Markers, crayons, pens, pencils | • Stop the Spread of Disease Booklet  
**Differentiation/Extension:**  
**review individual education support plans for scholars receiving ELL/SSS services** |

**Standard(s):**

• **Standard 1:** Students will comprehend concepts related to health promotion and disease prevention to enhance health.  
  - Describe basic hygiene practices. H1.W2.1  
  - Understand which elements of hygiene are essential to good health. H1.W2.Kb  
  - Describe ways to prevent the spread of germs. H1.W3.1a  
  - Understand differences between communicable and non-communicable diseases. H1.W3.1b  
  - Describe benefits of hygiene practices. H1.W2.2  
  - Understand bacteria and viruses are types of germs. H1.W3.2a  
  - Describe differences between communicable and non-communicable diseases. H1.W3.2b

• **Standard 3:** Students will demonstrate the ability to access valid information and products and services to enhance health.  
  - Identify where to locate trusted adults who can help promote health. H3.W5.1  
  - Identify characteristics of valid health information and services. H3.W5.2

**Lesson Time Frame:** 45 minutes

**Warm Up:**
Diseases Discussion

• Say “Let’s brainstorm: What is disease?”
• Record students’ ideas. In brainstorming, students will come up with many ideas about disease. Some concepts that you want to emerge include:
  - Disease is caused by bacteria and viruses (also fungi and protozoa, but these are not important for this age group)
  - Diseases make you feel sick
  - Many diseases can be caught from other people
• Affirm their responses and write a shared definition for disease on the board: “A disease is an illness or condition that stops the body from working normally.”

**Differentiation/Extension:**

**Activities:**
How Viruses Spread Demonstration

• Ask students to raise their hand if they have ever had a cold
• Talking Points
  - Most colds are caused by viruses. Viruses are germs that cause disease. Viruses are very tiny and cannot be seen without a microscope.
  - There are hundreds of types of viruses. There are over 200 types of viruses that can cause the common cold! Other viruses cause the flu, mumps, chicken pox, and other diseases.
  - Many viruses that cause disease can live in the air or on the surfaces of things around us. You can catch the flu or a cold just by being around someone who has the disease. You can also catch those diseases by touching a pencil, a cup, or even a tissue that the sick person has used.
Most diseases caused by viruses only last a few days or weeks. The body fights off the disease and destroys it. There are not medicines available to cure all viruses, most medicines only help with the symptoms.

Vaccines can prevent some diseases. Years ago, polio was a deadly disease caused by a virus. Scientists invented a vaccine to protect against many viruses. You were probably vaccinated for polio, and other diseases like chicken pox, measles, and mumps before you started school. This is one of the reasons we don’t often hear about epidemics in our country anymore.

• How does a virus spread?

• Talking Points
  o A virus can spread in many ways. They can travel through the air, in contaminated food or water, or infected body fluids like blood.
  o Let’s look at several ways a virus might travel through our classroom.

• Visual Demonstration
  o Hold up the spray bottle filled with water. Say “The liquid in the bottle represents the cold or flu viruses.”
  o Turn the nozzle so it faces the whiteboard, a countertop, or a window. Squeeze the trigger on the bottle and spray some of the water.
  o Say “Did you see the water coming out of the bottle? Cold and flu viruses spray into the air in a similar way when a person with a cold or flu sneezes or coughs. If someone nearby breathes in the viruses, that person may catch a cold or flu.”
  o Say “Look at the wet marks (where you sprayed). They represent the viruses that land on surfaces. Even after the water has dried, some viruses may still be there. If a healthy person touches a surface that has the viruses, and then touches their eyes, nose, or mouth, the viruses can enter the healthy person’s body and make them sick. This is an example of one way that a virus can be spread.”

• Check for Understanding
  o How can a person with a cold or the flu avoid spreading viruses?
    ▪ Have students discuss prevention and hygiene techniques such as washing hands well and often, sneezing/coughing into their sleeves, discarding of tissues, etc. Demonstrate how to do these things and have students copy your motions.
  o How can a healthy person keep from getting cold or flu viruses?
    ▪ Have students discuss the importance of getting enough sleep, eating healthy foods, getting enough exercise, not touching used tissues, washing hands well and often, etc.

Stop the Spread of Disease Booklet
• Give each student 1 sheet of construction paper and several sheets of blank paper. Show them how to fold the pages to make a booklet.
• Remind students that their personal health choices and behaviors play an important role in disease prevention. In this activity, they will each make a Stop the Spread of Disease booklet. On each page of the booklet they should list one healthy behavior that works to stop the spread of disease. They should draw a picture of the healthy behavior and print information that explains the drawing so that other students their age can understand the explanation. When the booklet is finished, make a cover and write a title on it.
• Healthy behaviors to include:
  o Hand washing
  o Coughing into elbow or tissue
  o What to do if you begin coughing, have a headache, or start to sneeze
  o When to tell parents, teachers, or school nurses about how you feel
  o Other behaviors you think are important to stop the spread of disease
• Depending on the background knowledge of your class, you can discuss each of these behaviors or let students get started on their booklets right away.
• Give students time to work on their booklets. Remind them to include the following on each page:
  o Name the healthy behavior
  o Illustrate the behavior
  o Tell about the behavior
• Help students to staple their final booklets together when finished. If time, they can read their booklet to a peer.

Differentiation/Extension:
- You may have some scholars work in groups to create one booklet. Each student can complete 1-2 pages of the booklet.

**Wrap Up:**

**Post Signs in the Classroom**
- Show scholars the signs you chose to print reminding them how to wash their hands and about other ways to stop the spread of germs.
- Post several signs around your classroom

**Differentiation/Extension:**

**Vocabulary:**
Disease – an illness or condition that stops the body from working normally
Germ – a tiny organism that causes disease
Hygiene – regular practices for staying healthy. Examples include brushing teeth, flossing, bathing, and washing hands.
Cultural practices and social norms for hygiene can vary significantly between countries, regions, and communities.
Stop Germs, Stay Healthy!

Wash hands often for 20 seconds

Cover coughs and sneezes

Can’t wash? Use alcohol-based hand sanitizer

When sick, stay home

¡Detenga los gérmenes, manténgase saludable!

• Lávese las manos frecuentemente por 20 segundos
• Use gel a base de alcohol, si no se puede lavar las manos
• Cubra su boca al toser y estornudar
• Quédese en casa cuando esté enfermo

Public Health
Seattle & King County

www.kingcounty.gov/health
206-296-4600
Available in alternate formats
ENGLISH/SPANISH GP 2006
STOP THE SPREAD OF GERMS

Help prevent the spread of respiratory diseases like COVID-19.

Avoid close contact with people who are sick.

Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

Avoid touching your eyes, nose, and mouth.

Clean and disinfect frequently touched objects and surfaces.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.

For more information: www.cdc.gov/COVID19
Communicable Diseases Lessons 3rd Grade and 4th Grade

<table>
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| • LT-I will learn how to prevent diseases from spreading.  
  • SC-I can make a poster to teach others about a healthy behavior that prevents diseases from spreading. | • Spray Bottle with water  
  • Paper and Materials for Posters | • Hygiene Posters  
  • **Differentiation/Extension:** review individual education support plans for scholars receiving ELL/SSS services |

**Standard(s):**

- **Standard 1:** Students will comprehend concepts related to health promotion and disease prevention to enhance health.
  - Identify ways pathogens enter the body. H1.W3.3a
  - Explain how common childhood illnesses are treated. H1.W3.3c
  - Describe personal hygiene needs associated with the onset of puberty. H1.W2.4
  - List ways to prevent debilitating or life-threatening diseases. H1.W3.4a
  - Identify ways to keep the immune system strong. H1.W3.4b

- **Standard 3:** Students will demonstrate the ability to access valid information and products and services to enhance health.
  - Investigate resources from home, school, and community that provide valid health information. H3.W5.3
  - I Investigate validity of health and wellness information, products, and services. H3.W5.4

**Lesson Time Frame:** 45 minutes

**Warm Up:**

Diseases Discussion
- Say “Let’s brainstorm: What is disease?”
- Record students’ ideas. In brainstorming, students will come up with many ideas about disease. Some concepts that you want to emerge include:
  - Disease is caused by bacteria and viruses (also fungi and protozoa, but these are not important for this age group)
  - Diseases make you feel sick
  - Many diseases can be caught from other people
- Affirm their responses and write a shared definition for disease on the board: “A disease is an illness or condition that stops the body from working normally.”

**Differentiation/Extension:**

- 

**Activities:**

How Viruses Spread Demonstration
- Ask students to raise their hand if they have ever had a cold
- Talking Points
  - Most colds are caused by viruses. Viruses are germs that cause disease. Viruses are very tiny and cannot be seen without a microscope.
  - There are hundreds of types of viruses. There are over 200 types of viruses that can cause the common cold! Other viruses cause the flu, mumps, chicken pox, and other diseases.
  - Many viruses that cause disease can live in the air or on the surfaces of things around us. You can catch the flu or a cold just by being around someone who has the disease. You can also catch those diseases by touching a pencil, a cup, or even a tissue that the sick person has used.
  - Most diseases caused by viruses only last a few days or weeks. The body fights off the disease and destroys it. There are not medicines available to cure all viruses, most medicines only help with the symptoms.
Vaccines can prevent some diseases. Years ago, polio was a deadly disease caused by a virus. Scientists invented a vaccine to protect against many viruses. You were probably vaccinated for polio, and other diseases like chicken pox, measles, and mumps before you started school. This is one of the reasons we don’t often hear about epidemics in our country anymore.

- How does a virus spread?

Talking Points
- A virus can spread in many ways. They can travel through the air, in contaminated food or water, or infected body fluids like blood.
- Let’s look at several ways a virus might travel through our classroom.

Visual Demonstration
- Hold up the spray bottle filled with water. Say “The liquid in the bottle represents the cold or flu viruses.”
- Turn the nozzle so it faces the whiteboard, a countertop, or a window. Squeeze the trigger on the bottle and spray some of the water.
- Say “Did you see the water coming out of the bottle? Cold and flu viruses spray into the air in a similar way when a person with a cold or flu sneezes or coughs. If someone nearby breathes in the viruses, that person may catch a cold or flu.”
- Say “Look at the wet marks (where you sprayed). They represent the viruses that land on surfaces. Even after the water has dried, some viruses may still be there. If a healthy person touches a surface that has the viruses, and then touches their eyes, nose, or mouth, the viruses can enter the healthy person’s body and make them sick. This is an example of one way that a virus can be spread.”

Check for Understanding
- How can a person with a cold or the flu avoid spreading viruses?
  - Have students discuss prevention and hygiene techniques such as washing hands well and often, sneezing/coughing into their sleeves, discarding of tissues, etc. Demonstrate how to do these things and have students copy your motions.
- How can a healthy person keep from getting cold or flu viruses?
  - Have students discuss the importance of getting enough sleep, eating healthy foods, getting enough exercise, not touching used tissues, washing hands well and often, etc.

You are the Teacher
- Give each student 1 sheet of paper and materials to make a poster. Providing printouts of photos of things such as tissues, soap, disinfecting wipes, alcohol-based hand cleaners will help bring realism to the posters.
- Remind students that their personal health choices and behaviors play an important role in disease prevention.
- Tell Students: In this activity, you will choose one of the following posters and create a poster showing the behavior and what you would say to someone else about why this behavior is important. When your poster is finished you are going to share it with the rest of the class.
  - Communicable diseases are spread by coughing or sneezing.
  - Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
  - Wash your hands with soap and water, especially after you cough or sneeze.
  - Alcohol-based hand cleaners called sanitizers are also effective.
  - Clean your desk with disinfecting wipes often.
  - Avoid touching your eyes, nose, or mouth.
  - If you think you are becoming sick or you are speaking to someone who sneezes or coughs, keep a social distance away from that person.
  - Stay home if you get sick.
- Depending on the background knowledge of your class, you can discuss each of the behaviors or let students get started on their posters right away.
- Give students time to work on their posters. Remind them that their poster should include the following elements:
  - Title with the behavior chosen from the list above
  - Illustration showing the correct way to do the behavior
  - Written information that explains your drawing and why this behavior is important
### Differentiation/Extension:

- 

### Wrap Up:

**Present Posters**

- Have each student hold up their poster and share it with the class
- Choose several posters to put up around your classroom and/or around the school

### Differentiation/Extension:

- 

### Vocabulary:

Disease – an illness or condition that stops the body from working normally  
Germ – a tiny organism that causes disease  
Hygiene – regular practices for staying healthy. Examples include brushing teeth, flossing, bathing, and washing hands.  
Cultural practices and social norms for hygiene can vary significantly between countries, regions, and communities.
Communicable Diseases Lessons  
5th Grade

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| • LT-1 I will learn about how to properly wash my hands to remove germs.  
  • SC-1 I can collect and analyze data to determine the most effective way to remove germs by washing my hands. | • Spray Bottle with water  
  • Copies of Handwashing Experiment Handout  
  • Cooking oil  
  • Cinnamon/nutmeg  
  • Soap  
  • Sinks with cold and warm water  
  • Paper Towels  
  • Stopwatch with seconds | • Hygiene Posters  
  • Differentiation/Extension: **review individual education support plans for scholars receiving ELL/SSS services  

Standard(s):

• **Standard 1**: Students will comprehend concepts related to health promotion and disease prevention to enhance health.  
  o Explain how family, peers, media, and culture influence decision-making related to hygiene practices. H1.W2.5  
  o Understand relationship between disease prevention and quality of life. H1.W3.5a

• **Standard 3**: Students will demonstrate the ability to access valid information and products and services to enhance health.  
  o Demonstrate how to access valid information, products, and services. H3.W5.5

Lesson Time Frame: 45 minutes

**Note**: If you do not have access to the materials for the experiment, you can use the 3rd & 4th grade lesson.

**Warm Up**:  
Diseases Discussion  
• Say “Let’s brainstorm: What is disease?”  
• Record students’ ideas. In brainstorming, students will come up with many ideas about disease. Some concepts that you want to emerge include:  
  o Disease is caused by bacteria and viruses (also fungi and protozoa, but these are not important for this age group)  
  o Diseases make you feel sick  
  o Many diseases can be caught from other people  
• Affirm their responses and write a shared definition for disease on the board: “A disease is an illness or condition that stops the body from working normally.”  
**Differentiation/Extension:**

**Activities**:  
How Viruses Spread Demonstration  
• Ask students to raise their hand if they have ever had a cold  
• Talking Points  
  o Most colds are caused by viruses. Viruses are germs that cause disease. Viruses are very tiny and cannot be seen without a microscope.  
  o There are hundreds of types of viruses. There are over 200 types of viruses that can cause the common cold! Other viruses cause the flu, mumps, chicken pox, and other diseases.  
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- How does a virus spread?
- Talking Points
  - A virus can spread in many ways. They can travel through the air, in contaminated food or water, or infected body fluids like blood.
  - Let’s look at several ways a virus might travel through our classroom.
- Visual Demonstration
  - Hold up the spray bottle filled with water. Say “The liquid in the bottle represents the cold or flu viruses.”
  - Turn the nozzle so it faces the whiteboard, a countertop, or a window. Squeeze the trigger on the bottle and spray some of the water.
  - Say “Did you see the water coming out of the bottle? Cold and flu viruses spray into the air in a similar way when a person with a cold or flu sneezes or coughs. If someone nearby breathes in the viruses, that person may catch a cold or flu.”
  - Say “Look at the wet marks (where you sprayed). They represent the viruses that land on surfaces. Even after the water has dried, some viruses may still be there. If a healthy person touches a surface that has the viruses, and then touches their eyes, nose, or mouth, the viruses can enter the healthy person’s body and make them sick. This is an example of one way that a virus can be spread.”
- Check for Understanding
  - How can a person with a cold or the flu avoid spreading viruses?
    - Have students discuss prevention and hygiene techniques such as washing hands well and often, sneezing/coughing into their sleeves, discarding of tissues, etc. Demonstrate how to do these things and have students copy your motions.
  - How can a healthy person keep from getting cold or flu viruses?
    - Have students discuss the importance of getting enough sleep, eating healthy foods, getting enough exercise, not touching used tissues, washing hands well and often, etc.

Handwashing Experiment
- Pass out a Handwashing Experiment Handout to each student and put them in pairs for the experiment. If you have more than 24 students, you may have additional pairs test hand sanitizer.
- Read the top of the handout together, and have each pair write a hypothesis about which method of hand washing they think will be most effective.
- Once every student has a hypothesis, assign each pair two of the boxes in the data table (ex: cold water with no soap for 5 seconds, and cold water with soap for 5 seconds)
- As a class, discuss the steps for washing hands. Here are some ideas:
  - Turn on the water
  - When water is at the correct temperature, get hands wet
  - Put soap on your palms (if using for experiment)
  - Rub hands together vigorously for the right amount of time
  - Rinse hands under the water
  - Dry hands with a towel

Now it’s time to do the experiment! Each partner will take a turn being the hand washer and the observer. Depending on how many sinks are available, you will need to stagger the partners so all data can be collected.

Procedure:
- The first set of hand washers “dirties” their hands by covering them with oil (wiping with an oily paper towel is a good way to do this) and then rubbing in cinnamon or nutmeg.
- The hand washers follow the class procedure to wash their hands using their assigned set of parameters (hot/cold water, soap/no soap, time of scrubbing). The observer watches to make sure their partner follows the procedure and times them for the correct amount of time.
After washing, the partners examine the hand washer’s hands and rate their level of cleanliness (scale is above the data table). The partners must agree on a rating.

- Collect data from each group onto a class data table. All students should record the full set of data.
- After all data is collected, discuss each set of parameters as a class to determine the best way to wash our hands. Encourage students who collected each data point to talk about how their hands felt in the different conditions.
  - Is cold water or warm water better?
  - Does soap make a difference?
  - What is the best amount of time for scrubbing?
- Make sure to emphasize that any washing is better than no washing – everyone’s hands should have been cleaner after washing than before.
- Give students time to write conclusions for their experiment.

**Differentiation/Extension:**

**Wrap Up:**

**Revisit Hygiene**

- Review the best steps for washing hands, determined from the experiment.
- Remind students about coughing into their elbows or a tissue, staying home if they feel sick, and other important hygiene habits to prevent the spread of disease.

**Differentiation/Extension:**

**Vocabulary:**

Disease – an illness or condition that stops the body from working normally
Germ – a tiny organism that causes disease
Hygiene – regular practices for staying healthy. Examples include brushing teeth, flossing, bathing, and washing hands.
Cultural practices and social norms for hygiene can vary significantly between countries, regions, and communities.
“Hand Washing Experiment”

Have you ever gone to the bathroom and forgotten to wash your hands? Or were you just in a hurry? Or did you not realize the importance of washing your hands in order to prevent spread of disease? This experiment will help you discover what’s important when washing your hands.

Before starting this experiment, make a hypothesis. (A hypothesis is an educated guess at what the result of an experiment will be.)

Which method(s) will be the most effective? Why?
Which method(s) will be the least effective? Why?

Write your hypothesis below.

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# Length of Time to Wash Hands

Scale of Effectiveness:  
1 = Nasty!  
3 = Halfway Clean  
5 = Spotless!

<table>
<thead>
<tr>
<th>Handwashing Method</th>
<th>5 Seconds</th>
<th>10 Seconds</th>
<th>15 Seconds</th>
<th>20 Seconds</th>
<th>25 Seconds</th>
<th>30 Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold water with no soap</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Cold water with soap</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Warm water with no soap</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Warm water with soap</td>
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</tbody>
</table>

Now check your results against your hypothesis. Were you correct? Why or why not?

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What do you conclude about the importance of handwashing?

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Período de tiempo para lavarte las manos

Escala de efectividad:  1 = ¡Asqueroso!  3 = Medio limpio  5 = ¡Impecable!

<table>
<thead>
<tr>
<th>Métodos del lavado de manos</th>
<th>5 segundos</th>
<th>10 segundos</th>
<th>15 segundos</th>
<th>20 segundos</th>
<th>25 segundos</th>
<th>30 segundos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agua fría sin jabón</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Agua fría con jabón</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Agua tibia sin jabón</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Agua tibia con jabón</td>
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</tr>
</tbody>
</table>

Ahora verifica los resultados de acuerdo a tu hipótesis. ¿Estabas en lo correcto? ¿Por qué o por qué no?

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¿Qué concluyes sobre la importancia del lavado de manos?

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