Classroom Procedure:

1. Ask: If you were a germ, where would you want to live? Why?
2. Allow for responses and discussion. Ask: Do you know where germs come from?
3. Allow for responses and discussion.
4. Distribute Germs content pages. Read and review the information with the students. Save the final question for the lesson closing. Use the additional resources to enhance understanding.
5. Distribute Activity page. Read and review the instructions. Students make work alone or in groups to create the poster. Encourage creativity. When completed, distribute construction or poster paper for a final copy.
6. Students will share the poster with the class. For about a month, choose each poster to display for one full day as a reminder for students to keep their hands clean.
7. Distribute Practice page. Check and review the students’ responses.
8. Distribute the Homework page. The next day, each student shares their story as germ.
9. In closing, ask: Tell about a time when you were sick. What was it like, and how did you become better?
10. Allow for responses and discussion.
11. Review handwashing techniques and how students can prevent the spread of germs.

Approximate Grade Level: 1 – 2

Objectives:
The students will be able to name types of germs that cause illness and disease; identify common illnesses and diseases and their symptoms; and explain common practices that control the way germs are spread; explain ways in which germs are transmitted, methods of preventing the spread of germs, and the importance of immunization.

TEKS:
Science Grade 1: b.7.A-C
Science Grade 2: b.4.A

Class Sessions (45 minutes):
At least 2 class sessions.

Teaching Materials/Worksheets:
Germs content pages (2), Activity page, Practice page, Homework page

Student Supplies:
Colored pencils, construction/poster paper, handouts

Prepare Ahead of Time:
Supplies for activity. Copy handouts.

Options for Lesson:
Students may work alone or in pairs or larger groups for the activity. Students vote on the best poster. Some organizations have poster contests related to hand washing, submit students’ posters. Students draw images of what they think a germ may look like under a microscope. Invite the school nurse or another nurse to speak with the class about preventing the spread of germs.
The lesson introduces students to basic information about germs, how they spread, and how to best prevent contact with germs. Besides a brief discussion related to bacteria and viruses, the lesson does not include difficult vocabulary. Nearly all students have heard of germs, but may not exactly know what they are, where they come from, or why they are around them. The teacher should also include a discussion of immunizations and their importance. There are also excellent videos to use in the additional resources.

Additional Resources:

Content:
http://health.pppst.com/germs.html (PPTs)
http://www.hometrainingtools.com/a/germs
http://www.atozkidsstuff.com/health.html
https://www.akronchildrens.org/cms/kidshealth/30477dfdf971a3674/

Worksheets:
http://www.kidsdiscover.com/shop/issues/germs-for-kids/
http://www.edhelper.com/teach/teach_Germs.htm
http://www.glo Germ.com/worksheets.html

Videos:
https://www.youtube.com/watch?v=DYKADcR34Y8 (5 min)
http://pbskids.org/video/?guid=af613755-85c9-4e18-b6c2-d422797d15cc (2 min-song)
https://www.youtube.com/watch?v=7D0elsuZC3w (5 min)
https://www.youtube.com/watch?v=NoxdS4eXy18 (5 min)
https://www.youtube.com/watch?v=YBGsoimPXZg (2 min)
https://www.youtube.com/watch?v=yToii3-p-NI (3 min)
https://www.youtube.com/watch?v=ghLkwSIWSXw (3 min)
https://www.youtube.com/watch?v=LaePayB_pC4 (2 min-song)
Germs

Did you know there are germs everywhere? Germs are often responsible for causing you to become sick. Some people call them cooties. Germs are on the outside of your body, especially on your hands. This is why your mom, dad, and teacher always tell you to wash your hands and take showers. The germs on the outside of your body can be washed away.

However, because they are so tiny they can get inside your body and make you sick. The only way you can see a germ is by using a powerful microscope. Once a germ gets inside your body, they can begin to spread very quickly. Usually, you will not know when a germ is in your body until you are sick.

Germs are just like other living things. They are alive, grow, and multiply quickly. Some germs can be spread from one person to another and are contagious. On the other hand, your body has germs that can be helpful.

Types of Germs

There are four types of germs. Germs may make a body sick, but germs may also invade other animals or plants. The four types of germs are bacteria, viruses, fungi, and protozoa.

BACTERIA

One type of germ is called bacteria. Bacteria love to live on the outside and inside of your body. They try to make their home there. Bacteria are made up of just one cell. Your body is made up of millions of cells, but a one-celled germ, like bacteria, can still make you sick. Bacteria can cause:

- Ear infections
- Sore throats, as well as strep throat or problems with your tonsils
- Pneumonia, which is much worse than a very bad cold
- Cavities

There are good bacteria too. You eat food every day. The food has nutrients in it to help your body. Good bacteria germs help use the nutrients in the food. The good bacteria live in your intestines.

Scientists also use good bacteria to make medicines and vaccines.
**VIRUSES**

When you were a little baby, and sometimes in school, you may have to get a shot. The shot is called a **vaccine** which is used to help prevent you from getting a virus. A **virus** is a germ that needs to be inside your cell if it wants to live. Since your body has millions of cells, viruses have many places to live. Once they get in a cell, they begin to multiply when the cell multiplies.

Examples of viruses include:
- Chicken pox
- Measles
- Flu
- Other diseases

The place a virus lives is called its **host**. When the host cell spreads, the virus can make a person sick. A shot or vaccine may be given to you to prevent you from getting measles or chicken pox.

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**FUNGI**

Fungi are like plants and are made up of many cells. It can live by feeding off other plants, people, and animals. They like to live in warm and wet places, such as in between a person’s toes. Many fungi will not cause problems for healthy people.

A couple examples of fungi include:
- Athlete’s foot (itchy rash)
- Skin infections and other rashes

Sometimes you will hear the word **fungus**, which is one, single fungi. Some fungus infections can be passed on from one person to another person. There are fungi which can cause problems for plants too. It might appear as white spots on a plant’s leaves.

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**PROTOZOA**

Protozoa live in wet places and are made up of a single cell. Many live in the water, which is how they spread diseases and infections. Water that is unsafe to drink may have protozoa in it. They can lead to stomach aches, diarrhea, and **nausea**, which means you feel like throwing up.
Stopping Germs

Nearly all types of germs can be spread through the air when a person sneezes, coughs, or breathes. Sweat, saliva (spit), and blood can spread germs. Germs can also be spread by touching things or other people, such as through shaking hands with someone.

One of the best ways to stop the spread of germs is by washing your hands with soap and water. It is normal to shake hands and make contact with other kids, but if you put your fingers in your mouth or nose, you could be helping the germs get inside your body.

It is also important to wash your hands every time you cough or sneeze, before you eat or make meals, and after: using the bathroom, playing outside, touching pets, visiting a sick person. When you do cough or sneeze try to do it in your elbow to keep germs from getting on your hands. You can also use tissues when you sneeze or need to blow your nose. Do not use your sleeve.

Other germs can be stopped when you get a shot from the doctor. The shots are called immunizations, which help your body recognize a germ and then battle against it. Finally, another great way to defeat germs is by eating healthy, exercising, and getting a good night’s sleep.

Every germ cannot be stopped. Nearly all people get sick one or more times in their life. However, if you follow the above suggestions, you will not become sick as often. Stay healthy!

**Tell about a time when you were sick. What was it like, and how did you become better?**
Create a Poster

In the space provided, draw a picture to encourage people to wash their hands. Include words too. Be creative, make it colorful. You want people who see it to remember to wash their hands.
Tell which germ the statement matches. Bacteria (B), Virus (V), Fungi (F), or Protozoa (P)

1. Spreads disease usually through water.
2. A vaccine is used to help prevent getting sick from this germ.
3. May cause ear infections, sore throats, cavities, or pneumonia.
4. The germ is like a plant made up of many cells.
5. This germ needs to be on the inside of a cell in your body to live.
6. A good germ that lives in the body’s intestines.
7. They usually do not cause problems for healthy people.
8. The germ that must have a host to live and spread throughout the body.
9. A germ that is used to make medicines and vaccines.
10. The germ may appear as white spots on the leaves of a plant.
11. The germ multiplies when the cell it lives in multiplies.
12. The germ may lead to diarrhea, stomach aches, or nausea.
13. A germ that helps with the nutrients you get from food.
14. A germ causing athlete’s foot, skin infections, or other rashes.
15. The germ may cause the flu, chicken pox, and measles.

Define each word:

Host: ________________________________

Vaccine: ________________________________

Fungus: ________________________________

Nausea: ________________________________

Immunization: ________________________________
Imagine you are a germ. Write a short story about your life. Include some drawings and a title. Be creative. You can be any type of germ, plus you can have different germ friends. Be sure to include information about how you are spread from one person to another.

Title: ____________________________________________________
Tell which germ the statement matches. Bacteria (B), Virus (V), Fungi (F), or Protozoa (P)

1. P  Spreads disease usually through water.
2. V  A vaccine is used to help prevent getting sick from this germ.
3. B  May cause ear infections, sore throats, cavities, or pneumonia.
4. F  The germ is like a plant made up of many cells.
5. V  This germ needs to be on the inside of a cell in your body to live.
6. B  A good germ that lives in the body’s intestines.
7. F  They usually do not cause problems for healthy people.
8. V  The germ that must have a host to live and spread throughout the body.
9. B  A germ that is used to make medicines and vaccines.
10. F  The germ may appear as white spots on the leaves of a plant.
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13. B  A germ that helps with the nutrients you get from food.
14. F  A germ causing athlete’s foot, skin infections, or other rashes.
15. V  The germ may cause the flu, chicken pox, and measles.

Define each word:

Host: The place a virus lives.

Vaccine: Shot used to help prevent a virus.

Fungus: One single fungi germ.

Nausea: A feeling a person gets before throwing up.

Immunization: Shots given by doctors to battle germs.