



KidsHealth.org/classroom

Teacher's Guide

This guide includes:

- Standards
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- Discussion Questions
- Activities for Students
- Reproducible Materials

Standards

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Demonstrate the ability to access valid information and products and services to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Demonstrate the ability to advocate for personal, family, and community health.

National Health Education Standards:
www.cdc.gov/healthyschools/sher/standards/index.htm

Although some germs are helpful, many can cause illnesses. The following activities will help your students learn what germs are, what they do to the body, and how to prevent them from spreading.

Related KidsHealth Links

Articles for Teens:

Why Should I Care About Germs?

TeensHealth.org/en/teens/care-about-germs.html

Immune System

TeensHealth.org/en/teens/immune.html

Hand Washing

TeensHealth.org/en/teens/handwashing.html

Infections

TeensHealth.org/en/teens/infections

What's the Difference Between Infectious and Contagious?

TeensHealth.org/en/teens/contagious.html

The 5-Second Rule

TeensHealth.org/en/teens/5-seconds.html

Understanding Medications and What They Do

TeensHealth.org/en/teens/meds.html

Discussion Questions

Note: The following questions are written in language appropriate for sharing with your students.

1. How can germs be harmful to the body? How beneficial? are they sometimes
2. After harmful germs enter the body, what happens? Make a list of symptoms that tell you your body is fighting them.
3. Explain why hand-washing is essential for preventing the spread of germs. When is it important to wash your hands?
4. Washing hands is just one way to prevent germs from spreading. Brainstorm a list of other ways you can help avoid spreading germs.



Activities for Students

Note: The following activities are written in language appropriate for sharing with your students.

Battling Bugs!

Objectives:

Students will:

- Learn what germs are
- Identify the immune system's response to germs

Materials:

- Computer with Internet access
- Graphic design or presentation software, or large construction or chart paper and markers

Class Time:

1½ hours

Activity:

You wake up in the morning with a runny nose and watery eyes. Looks like you may have caught that bug that everyone else has! What exactly are these pesky germs that your body is constantly fighting? And how does your body defend itself against germs once they get into your body?

Read through the articles at TeensHealth.org to learn about germs and how your immune system responds to them. Next, work individually or in small groups to create a digital presentation or chart to show what happens to your body after harmful germs have entered your system. Be sure to include the key players in the immune system's response and demonstrate how they work together to rid the body of germs.

Extension:

List all the ways you might have come into contact with germs today. How well do you think you did in keeping those germs from spreading? How might you do better tomorrow?



Infection Factsheet

Objectives:

Students will:

- Discover the causes of common infections and how they spread
- Recognize signs and symptoms of these infections
- Identify ways to cope with infections

Materials:

- Computer with Internet access
- "Infection Factsheet" handout

Class Time:

30 minutes

Activity:

Even though our immune systems are always working to keep us healthy, germs can still infect our bodies. Whether it's a cold, a stomach bug, or athlete's foot, germs can slow us down and make us feel yucky. As a class, you will be creating a booklet to inform your peers about common infections. For your factsheet, select one common illness from the "Infections" section of TeensHealth.org (TeensHealth.org/en/teens/infections) and read all about it. Use the handout to include information about what the infection is, what causes it, symptoms of the infection, how it's spread, and what you can do to feel better once you have it.

Extension:

One day, you're busy making sandwiches at your after-school job when your sniffing, sneezing co-worker coughs and then continues to make a sandwich for a customer. Although he did cover his cough, he also forgot one important thing – to wash his hands! Role-play a conversation in which you politely tell him what he needs to do to keep from infecting customers and co-workers.

Reproducible Materials

Handout: Infection Factsheet

KidsHealth.org/classroom/9to12/personal/hygeine/germs_handout1.pdf

Quiz: Germs

KidsHealth.org/classroom/9to12/personal/hygeine/germs_quiz.pdf

Answer Key: Germs

KidsHealth.org/classroom/9to12/personal/hygeine/germs_quiz_answers.pdf



Name:

Date:

Infection Factsheet

Using the common illness you chose from the "Infections" section of TeensHealth.org (TeensHealth.org/en/teens/infections), fill in the chart below.

Name of illness:	
What causes it:	
How you can get infected:	
Signs and symptoms:	
How to care for yourself when you have it:	



Name: _____

Date: _____

Quiz

Instructions: Answer each question.

1. Some bacteria are helpful to the body and:
 - a. cause cavities
 - b. die quickly outside other living cells
 - c. help the digestive system function properly
 - d. give you energy

2. Germs produce toxins in the body that can make you:
 - a. sneeze a lot
 - b. cough
 - c. have diarrhea
 - d. all of the above

3. List three ways to keep germs from spreading.

4. Describe the proper way to wash hands.

5. Describe what the immune system does for the body.

6. An antigen:
 - a. is an unknown substance that infects the body
 - b. is a protein that attaches itself to germs to get rid of them
 - c. destroys germs in the body
 - d. is a type of immunity you are born with

7. True or false: Vaccinations help to provide us with adaptive immunity, which is immunity that develops as we are exposed to diseases. T F

8. White blood cells help to:
 - a. infect the body
 - b. provide passive immunity
 - c. destroy infections
 - d. weaken your immune system

9. A specialized protein that recognizes invaders to the body and attaches to them is called:
 - a. an antigen
 - b. an antibody
 - c. a complement
 - d. a T cell

10. True or false: It's OK not to wash my hands after using the bathroom at home because it's cleaner than a public restroom.
T F



Quiz Answer Key

- Some bacteria are helpful to the body and:
 - cause cavities
 - die quickly outside other living cells
 - help the digestive system function properly
 - give you energy
- Germs produce toxins in the body that can make you:
 - sneeze a lot
 - cough
 - have diarrhea
 - all of the above
- List three ways to keep germs from spreading.
any three of the following: wash hands properly after using the bathroom, after coughing/sneezing/blowing your nose, after petting an animal, after gardening, before and after visiting a sick friend or relative; handle food properly; get appropriate vaccinations; use condoms if sexually active
- Describe the proper way to wash hands.
Use soap and warm water, rub hands together and lather up on both sides all the way to the wrists and in between fingers for 15 seconds, then rinse well under warm water.
- Describe what the immune system does for the body.
It defends against harmful germs and fights infection.
- An antigen:
 - is an unknown substance that infects the body
 - is a protein that attaches itself to germs to get rid of them
 - destroys germs in the body
 - is a type of immunity you are born with
- True or false: Vaccinations help to provide us with adaptive immunity, which is immunity that develops as we are exposed to diseases. T F
- White blood cells help to:
 - infect the body
 - provide passive immunity
 - destroy infections
 - weaken your immune system
- A specialized protein that recognizes invaders to the body and attaches to them is called:
 - an antigen
 - an antibody
 - a complement
 - a T cell
- True or false: It's OK not to wash my hands after using the bathroom at home because it's cleaner than a public restroom. T F