

LESSON GUIDE

GRADE 3

How Do We Catch Germs That Make Us Sick?

Performance Objectives

Students will be able to identify:

- How germs enter the body and cause sickness.
- Ways to keep from getting sick.

Motivation

Ask, “How do people know when they are sick?” Encourage the children to discuss physical and emotional symptoms (signs), e.g., sneezing, coughing, fever, earache, runny nose, sore throat, tiredness, feeling sad, or worried.

Procedure/Development

- Say, “Have you ever had the flu (influenza)? How do people get the flu?”
- Write children’s answers on the newsprint. (Anticipated answers: being sneezed on, drinking from someone’s glass, using someone’s towel, kissing someone who has the flu, something was “going around,” germs got into body.)
- Explain, “Many sicknesses are caused by germs that get into people’s bodies through body openings. Germs are so small they can only be seen with a microscope.”
- Explain, “Viruses are types of germs that can be spread or transmitted in many ways.” Elicit from children some ways that viruses can be transmitted. List their answers on the newsprint.
- Say, “List ways people can protect themselves from viruses entering their bodies” (e.g., don’t get too close to people with a cold or the flu; don’t share glasses or silverware or eat from same plate; wash hands; get the right immunization shots from the doctor or clinic—these vaccines prevent people from getting certain diseases).
- Explain, “By keeping viruses out of their bodies, people are less likely to get sick.”

Assessment/Homework

Have each child write a story about a time when he/she had a cold or the flu, including things he/she did to get well and to keep from passing the sickness to other people.

GRADE 3 Lesson 1

NEW YORK STATE LEARNING STANDARDS 1, 2

SKILLS

Decision Making
Self-Management

MATERIALS

Markers
Newsprint

VOCABULARY

Flu (Influenza)
Hygiene
Microscope
Symptoms
Transmit
Vaccine
Virus

SKILLS

Self-Management

MATERIALS

Newsprint

VOCABULARY

AIDS

Airborne

Antibodies

Bloodborne

Cilia

HIV

Immune System

Mucus

Pathogens

Virus

Wax

How Does the Body Fight Disease?

Performance Objectives

Students will be able to:

- Recognize how the body fights disease.
- Classify HIV as an infection that attacks the body's immune system.
- Recognize that AIDS is an advanced phase of HIV.

Motivation

- Draw the outline of a human body on the newsprint.
- Say, "In the last class we discussed how germs can get into body openings and cause disease. Today we will discuss ways the body protects itself from germs by keeping them out [point to outside of body] or by stopping them if they do get inside [point to inside of body]."

Procedure/Development

- Brainstorm how the body keeps out germs:
 - The skin protects the body.
 - Eyelashes and blinking keep dust and germs from eyes; tears clean eyes.
 - *Cilia*, tiny hair-like structures, and *mucus* found in the nose catch some *pathogens* and sweep them back out of the body.
 - Wax and cilia protect the ears.
 - The lining of the mouth and throat are wet and often trap germs so they cannot infect the rest of the body.
- Explain, "If germs do enter the body, the body's *immune system* acts to stop them from causing disease. *Antibodies* are specially designed tools for each type of germ. *Anti* means against; *body* refers to the live thing that entered the body. Antibodies try to prevent germs from causing disease. If a person still gets sick, a doctor can sometimes prescribe medication to help the person get well."
- Say, "Some diseases are easy to get, such as a cold or the flu. They are easy to get because they are *airborne*. Airborne diseases are caused by germs that travel from one person to another in a sneeze or cough or by touch. There are other diseases that are hard to get, such as diseases that are *bloodborne*."
- Write HIV and AIDS on the newsprint. Ask the children what they know or have heard about HIV and AIDS. Write their answers on the newsprint.

- Explain, “HIV is a virus that can lead to AIDS. HIV and AIDS are conditions in which it is hard for the body to fight off other diseases. AIDS is an advanced phase of HIV, in which the immune system is very weak.” Spell out and explain the terms HIV (Human Immunodeficiency Virus); AIDS (Acquired Immune Deficiency Syndrome).
- Say, “HIV weakens the body’s immune system. After a time, the body cannot fight well against diseases. Once the person infected with the virus has an illness from a special list or the immune system reaches a very low point, he or she is said to have AIDS. There is currently no cure for HIV (like some cancers or diabetes), but there are treatments, which help people to live healthy, full, and productive lives for many years. These treatments also help slow HIV infection from developing into AIDS.
- Explain, “HIV is hard to contract. The virus cannot stay alive in the air. HIV lives inside the bloodstream; when infected blood enters a person’s body, that person may get HIV.”
- Refer to the list on the newsprint of what children know or have heard about HIV and AIDS. Ask, “Now that you have heard what HIV and AIDS are, should any of the information on the newsprint be corrected?”
- Consider inviting one or more of the following to visit the class to answer questions the children may have and to address how children can prevent infection and transmission of HIV:
 - A doctor or nurse.
 - An HIV/AIDS educator.
 - Other school resources.

Teacher Note: Remember to obtain approval from your principal before inviting a guest to speak about HIV/AIDS or related topics. Meet or talk by phone with the guest speaker in advance to determine appropriateness for the grade level. Examine all materials with your principal at least 72 hours prior to the presentation.

- Say, “If you have further questions, go to a school nurse, health aide, or guidance counselor for answers.”

Assessment/Homework

Have students role-play how a parent/guardian would teach a child about what happens when HIV enters the body, including how it can evolve into AIDS.

SKILLS

Self-Management

MATERIALS

Crayons/Markers
and/or Paints

Newsprint

Paintbrushes

VOCABULARY

Antibodies

Treatment

How Does HIV Affect the Immune System?

Performance Objective

Students will understand the difference between the functioning of a healthy immune system and the functioning of the immune system of a person infected with HIV.

Motivation

Say, "In our last lesson, we talked about the immune system. Imagine that you are going to read a book about the immune system. What would you see in the book?" List their responses on the newsprint.

They should include:

1. **Germs** that invade the body.
2. The **immune system**, which protects against germs.
3. **Antibodies**, tools used by the immune system to protect against germs.
4. **HIV**, a virus that weakens the immune system by making antibodies lose their power.
5. **Medicines/treatments** developed to interfere with HIV and keep the immune system functioning well longer.

Procedure/Development

Divide the class into five groups. Give each group a piece of paper, crayons, markers, and/or paints. Say, "Write your subject number and subject title at the top of the paper before you begin. Then imagine and draw what your assigned subject might look like."

Subject 1: Germs enter the body.

Subject 2: The immune system is alerted to an attack by germs such as bacteria or viruses.

Subject 3: Antibodies are tools that protect the body. The immune system designs a special antibody for each germ.

Subject 4: HIV is a virus that weakens the immune system and keeps it from being able to protect the body.

Subject 5: Scientists are working hard to find a cure for HIV, more treatments for the diseases that people with HIV/AIDS get, and more treatments to attack HIV. (Magazine pictures showing scientists at work may be used to stimulate students' thinking.)

Assessment

Write a story to go along with the pictures in the book.

What Are Healthy Choices That People Can Make?

Performance Objective

Students will be able to distinguish between healthy and unhealthy choices.

Motivation

On the newsprint write the following sayings and ask the children to discuss their possible meanings.

1. "An apple a day keeps the doctor away."
2. "Milk does a body good." (However, some children cannot digest cow's milk.)
3. "Safety starts between the ears."
4. "Cover the sneeze, prevent disease."
5. "The first wealth is health."
6. "Early to bed, early to rise, makes us healthy, wealthy, and wise."
7. "Moderation in all things."
8. "One who has health has hope, and one who has hope has everything."
9. "A strong body makes a strong mind."

Procedure/Development

- Say, "Many of the sayings on the newsprint present ideas about staying healthy. As a class, we will compile our own list of health rules. We're going to play a game that will help us develop our list."
- Distribute an index card to each child.
- Say, "On your index card, write a health rule that should go on our list, or an unhealthy rule that absolutely should not go on our list. When you are finished, I will read the health rules aloud and we will decide together which are health rules we want on our list, and which are unhealthy rules. (Some children may come up with silly or funny rules that the class will enjoy weeding out.)"
- Conduct the game as described above, writing the list on the newsprint.

Assessment

Have students write a story about themselves carrying out a health rule from the list. Share selected student stories and have students explain why it's a health rule.

GRADE 3 Lesson 4

Prevention

NEW YORK STATE LEARNING STANDARDS 1

SKILLS

Decision Making
Self-Management

MATERIALS

Index Cards
Markers
Newsprint

VOCABULARY

Health Rule
Moderation

SKILLS

Advocacy
Communication
Decision Making
Relationship Management
Self-Management
Stress Management

MATERIALS

Markers
Newsprint
Poem, "Later Will I Be Well?"
(Activity Sheet 2
from Grade 2, Lesson 2)

VOCABULARY

AIDS
Assistance
Confidential
HIV
Resources

How Can We Get Help When We Have a Problem?

Performance Objectives

Students will be able to:

- Identify where children can go to get help.
- Practice getting help in different situations.

Motivation

- Tell the following story:

Samantha and Susie were playing tag with other children in the school yard. Susie tripped on her shoelaces and accidentally bumped into Samantha. Samantha fell down, cut her knee, and started to bleed. She yelled at Susie for pushing her down. The other children crowded around them.

- Have the students suggest ways children can be helpful in this situation. Write the children's problem-solving strategies on the newsprint (e.g., comfort Samantha, help Samantha understand that Susie did not push her, support Susie, get an adult with a first aid kit to help).
- Make sure children understand that neither Susie nor the other children should touch Samantha's blood. Children need to ask an adult for help.

Procedure/Development

- Have children volunteer to act out the following situations in front of the class. After children act out the situations, discuss alternative ways of solving the problems.
- In addition to discussing alternative ways of solving the problems, discuss the problem of not seeking help due to fear. With the children's participation, write a list of resources on the newsprint—people or places children can turn to for help (use the list below).

Resources: Parent or guardian, teacher, neighbor, counselor, friend, library, doctor, police officer, telephone operator, hospital, etc.

1. Jonelle is in school and suddenly feels dizzy. She sits down in the middle of the crowded hall. How can other children help her?
2. Mae is in a store with her mother. She wanders off to look at some comic books, then looks around for her mother and cannot find her. How can she get help?

3. Anton and his friends play ball in the schoolyard. They leave their jackets by the fence. After the game, Anton reaches into his jacket pocket and finds that his harmonica is gone. The next day, he sees Frank with a harmonica just like the one Anton lost. He accuses Frank of stealing it. Frank insists the harmonica is his own. The boys argue. Anton threatens to have his brother beat up Frank. How can other children help?
4. Tanya and Maria are playing jump rope when an older boy from down the street runs past them, grabs the jump rope, and runs off with it. They shout for him to give it back, but he just keeps on running and laughing. How can they get their jump rope back? Whom could they ask for help?

Continue the activity by having children act out these HIV/AIDS-specific situations. Mention issues of confidentiality and disclosing of someone's medical history/situation.

Teacher Note: Students diagnosed with HIV or AIDS have a right to privacy and a free appropriate public education. They are entitled by law to confidentiality about their HIV/AIDS status, about HIV- or AIDS-related illness, or information that can reasonably be used to identify them as having HIV or AIDS.

Disclosure of HIV and AIDS information is governed by the New York State Public Health Law that went into effect in 1989 (i.e., Section 2782, Confidentiality and Disclosure, and Section 2783 Penalties; Immunities). Willful commission of an unauthorized act of disclosure is a misdemeanor and punishable accordingly; a person is also subject to a civil penalty not to exceed five thousand dollars (\$5,000) for each occurrence of unauthorized disclosure.

No disclosure of confidential HIV-related information involving a student shall be made without first obtaining the informed written consent of the student (if he/she has the capacity to consent to such disclosure) or his/her parent or guardian on the New York City DOHMH-approved form.

5. Children in a school hear that Tina has HIV. Some children begin to tease Tina and refuse to play with her or sit next to her. How can other children help Tina?

To help children better understand the experience of a child with HIV, have them read and discuss the poem, "Later Will I Be Well?" (Grade 2, Lesson 2). Also point out that "hearing" that someone has HIV does not necessarily mean that the person is HIV-positive. Discuss the harm in believing and spreading rumors. Point out that information about whether someone has HIV/AIDS is confidential.

6. Billy's mother has AIDS. Some children call Billy names and insult his mother. How can other children help Billy?

Assessment

Have children write a continuation of a situation above, describing how they would use at least two resources from the list to get help. Share selected stories with the class.