HIV & AIDS, year 1, day 1

Grade 4 or 5, Lesson #15

Time Needed

45-60 minutes

Student Learning Objectives

To be able to...

1. Distinguish between healthy concern and unhealthy fear.
2. Understand that HIV is hard to catch, affects few children and is preventable.
3. Distinguish between illnesses caused by germs and those caused by other factors (i.e., genes, chemicals).
4. Define "communicable disease" and give examples.
5. Discuss ways in which HIV is and is not passed.

Agenda

1. Discuss with class possible reasons why HIV & AIDS have become such prominent topics (in the media).
2. Discuss the difference between healthy concern and unhealthy fear.
3. Emphasize
    - Children your age rarely have HIV.
    - HIV is very hard to get.
    - HIV is preventable.
4. Distinguish between non-communicable and communicable disease.
5. Describe the transmission modes for HIV, and emphasize that casual contact cannot pass the disease.
6. Take questions from the class.
7. Use the Crossword Worksheet to review concepts.

This lesson was most recently edited August, 2009.

Materials Needed

Student Materials: (for each student)

- *Crossword Puzzle Worksheet*

Activities

1. **Discuss with class possible reasons why HIV & AIDS have become such prominent topics in the media.**

   I know that most of you have heard about HIV and AIDS. It seems that news about HIV and AIDS is everywhere: on T.V., in the papers, in magazines. There are many other serious diseases in our world, like cancer and heart disease. Why do you think people are talking and writing so much about HIV?

   Possible responses: People die from it. There is no cure. People are scared of it. Younger people get it.

   Be clear with students that it's not as common as many less-talked-about illnesses (like heart disease, cancer, etc.)

   HIV/AIDS is a very serious disease. There is no cure for it, and it is fatal. It is out of control in many countries in the world, not just the United States. It is killing people in their 20's, 30's and 40's, the time when they would normally be working at their jobs, enjoying their loved ones and doing things to make our world a better place to live. HIV is spreading very fast. The number of people who have the disease grows every year even though, compared to many other diseases, it is still fairly rare in the U.S. All this makes many people very concerned. Many other people are scared.

   It is good to be concerned. When people are concerned, they are able to help. Some concerned people are looking for a cure for people sick with HIV. Other concerned people are searching for a vaccine, a medicine to give to healthy people (like you) to protect against disease. Other concerned people volunteer their time, helping people with AIDS to live their lives as comfortably and joyfully as possible. Other concerned people learn how to be more careful with their own health.

2. **Discuss the difference between healthy concern and unhealthy fear.**

   So concerned people can accomplish things. Usually, scared people cannot. What happens to most of us when we get scared?

   Possible responses: We freeze. We can't think clearly. It's hard to decide what to do. We run away from things. We hide. We get angry.

   Often, people are frightened of things that they don't understand, things that seem strange and unfamiliar. That's what has happened with HIV/AIDS. At first, we didn't know much about the disease. Now we do, but some grown-ups still worry a lot about it. People worry about how they can catch it. People worry because they want themselves and their family and friends to stay well. Some people are scared because there have been a lot of rumors going around about HIV. Rumors make people confused.

3. Emphasize why students should be concerned rather than fearful.

One of the most important things I want you to learn today is that you definitely don't have to be scared about HIV/AIDS. Here are some reasons why:

- *We know a lot about HIV. We don't have a cure, but we know what causes it.*
- *We know that even though HIV is making many adults very sick, it generally does not affect children your age, at least not in wealthy countries like the United States.*
- *We know that HIV is very, very hard to get. You can't get it by being close to someone who has it - even by giving them a hug.*
- *We know that HIV is preventable. When you know how people can and cannot catch it, you'll know how to keep yourself safe.*

4. Introduce and distinguish between communicable and non-communicable diseases.

HIV is a tiny germ called a virus. Germs that pass sicknesses around are small living organisms which are invisible to us. Many sicknesses are caused by germs, but many are not. Let's first take a look at other things (besides germs) that could cause an illness. Who can think of something?

Use chalkboard or transparency to record their answers into these categories of things that cause illness:

GENES - from the mother or father. (Genes are the little chemical plans within sperm and egg cells ... plans for a new human being ... its hair color, the shape of its ears, etc.)

MALNUTRITION - not having enough good food to eat, not enough of particular vitamin or mineral

CHEMICALS - certain drugs, like alcohol, tobacco. Sometimes people are exposed to other chemicals at their workplace.

RADIATION - too many x-rays; from a nuclear power plant (Chernobyl)

If a person became ill from one of these situations, could they pass the sickness on to another person?

ANSWER: No. These kinds of illnesses would affect only the particular people exposed. These people cannot give their sickness to anybody else.

But we know that there are many, many sicknesses that can be passed from person to person. They are called COMMUNICABLE or CONTAGIOUS DISEASES. What do we mean when we talk about communication?

ANSWER: A person makes contact with another person. They may talk, touch, look, smell. They indicate an interest in the other person.

So, with communicable diseases, people play a part in passing the disease around from one to another. Some diseases can be spread through direct contact - that means things like kissing or touching - or through indirect contact - like breathing in the germ mist from a person's sneeze or cough.

Indirect contact might also be touching things that have been used by an infected person like their toothbrush or food or silverware.

There are several types of these tiny organisms. Lets look at some of them:

bacteria fungi viruses parasite protozoa

Think about some communicable diseases that you know about, illnesses that we could catch from each other. I'll write them on the board next to the kind of germ that brings it into our body. Who can tell us one?

Germs		Illnesses
Bacteria	-	pneumonia, strep throat
Viruses	-	cold, flu, measles, chicken pox, HIV, mumps, pneumonia
Protozoa	-	"camper's diarrhea", malaria
Fungi	-	athlete's foot, ringworm, thrush, "diaper rash"
Parasites	-	tapeworm, fleas, head lice, ticks

Some of these same germs can be found in water when it is polluted by garbage or sewage (when toilets drain into lakes and rivers that people drink from). In the U.S., drinking water goes through a special treatment process to make it safe, but many countries in the world, those that are poor, frequently have contaminated (unsafe, unclean) drinking water. Some germs can also contaminate food, and disease can spread that way. That could happen if food is not refrigerated or cooked well. What's another way that disease can be spread that we haven't mentioned? Yes. By insects. They can carry certain germs. An insect could land in sewage and then on food. If someone ate that food, they might become sick.

O.K. we've looked at non-communicable diseases (which people don't pass to each other) and communicable diseases, those which we can give to another person. We said that HIV falls into which group? Good, it's communicable. And which type of germ spreads HIV? Right, a virus.

5. Describe the transmission modes for HIV.

HIV is different from most of the other communicable diseases because it is very, very hard to catch. It does not pass through the air. We can't get it from being in the same room with an infected person. We can't get it by touching or hugging. We can't get it by sharing pencils or hairbrushes or even food. We can't get it from an infected person coughing or sneezing on us or by drinking from the person's cup.

HIV is generally passed in three ways. It is passed when someone has sex with an infected person; when someone shares needles with an infected person to shoot up drugs; and from an infected woman to her baby during pregnancy. .

So, you can see why I said at the beginning that very few children your age in wealthy countries like the U.S. have HIV:

- *Now that we can treat pregnant women who have HIV, many fewer babies catch it from their mothers. We can't cure the mothers, but we can cut down the chances of the baby becoming infected.*
- *Some children in the U.S. used to catch HIV during blood transfusions, when they were in the hospital for a surgery or because they needed help with another illness. This happened because, until 1985, we had no test to make sure that blood (in the blood banks) was safe. Now we do have a blood test, so the chance of a person getting HIV from a transfusion is very, very small.*
- *And most people your age don't have sex or shoot drugs. Those are things adults might do. People who are smart about HIV, who are careful and make good decisions, will never to have to worry about catching it.*

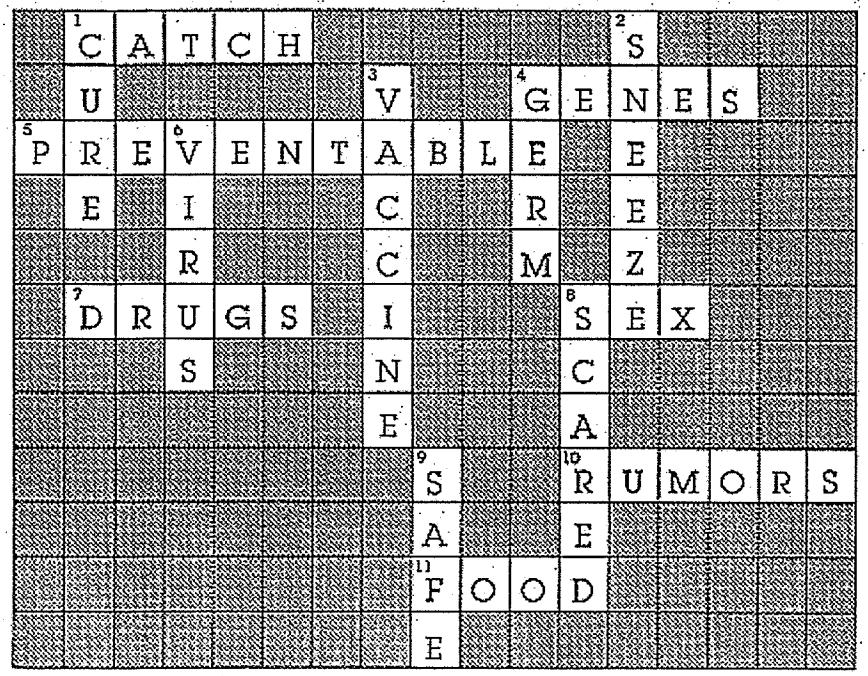
In poorer countries, where there isn't enough money for health care, doctors sometimes have to reuse needles. They can't always afford the equipment to sterilize them. And there isn't money for medicines for pregnant women. Or even money for classes like this, to teach people how to stay safe. But children like you, in the U.S., who are careful and grow up making good decisions, will never to have to worry about catching HIV.

6. **Respond to students' oral and written questions.**

7. **Use the Crossword Worksheet to review concepts.**

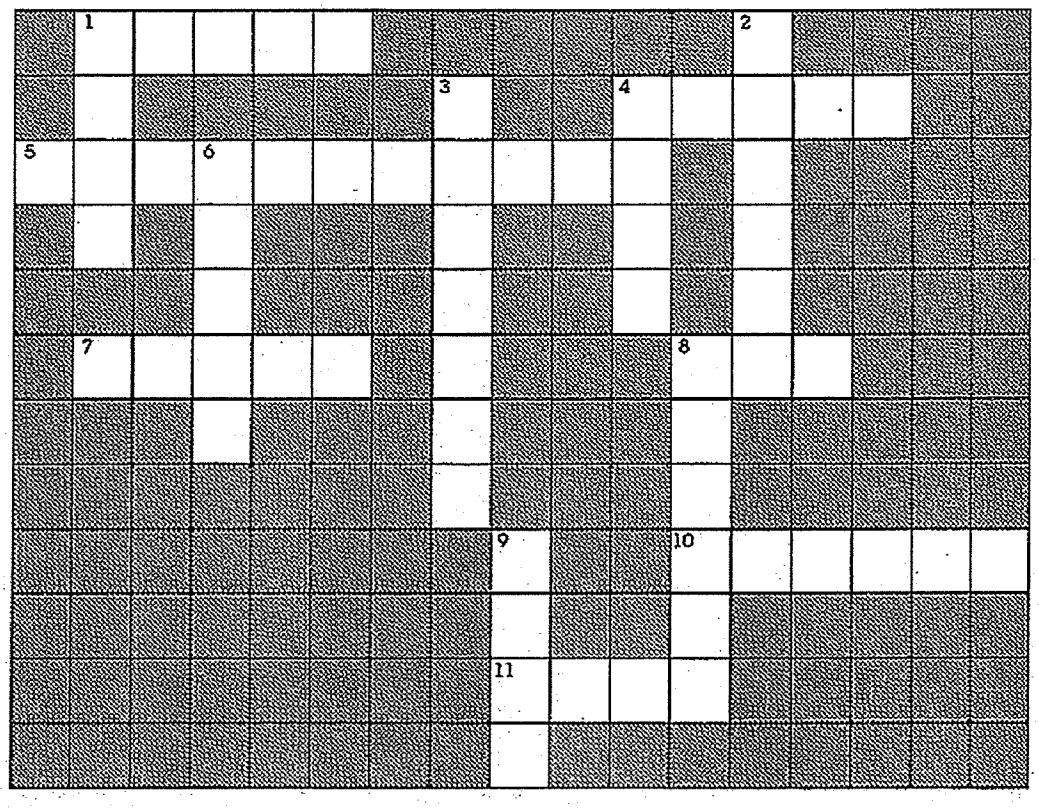
Have students complete the puzzle in pairs. Allow 5 minutes. Then, review the answers as a large group.

Answers:



HIV/AIDS Crossword Puzzle Worksheet

NAME _____ **DATE** _____



ACROSS

1. A communicable disease is one you can _____.
4. Babies can be born with illnesses they get from their parents' _____, but HIV isn't one of those.
5. Unlike most diseases, HIV is _____.
7. People can get HIV if they shoot _____.
8. HIV can pass when two people have _____.
10. When people don't know the facts they often spread _____.
11. Some germs can be spread indirectly through eating contaminated (unclean) _____, but HIV can't be spread that way.

DOWN

1. Unfortunately, there is no _____ for HIV.
2. Many kinds of illnesses can pass through a _____, but HIV does not.
3. A _____ protects healthy people from a particular disease.
4. Any communicable disease is caused by a _____.
6. HIV passes through a germ called a _____.
8. People who don't learn the facts about things are often _____.
9. Now that you know the facts about HIV, you can be _____.

HIV & AIDS, year 1, day 2

Grade 4 or 5, Lesson #16

Time Needed

45-60 minutes

Student Learning Objectives

To be able to...

1. Explain the role of the white blood cell in the body's defense against infection.
2. Understand the ability of the HIV to "outwit" and damage the immune system.
3. List 2 ways HIV is transmitted and 2 ways that it is not.
4. Express confidence that HIV is primarily an adult disease caused by adult behaviors.

Agenda

1. Use the *AIDS Factsheet* to review the concepts from yesterday's lesson.
2. Use a video, followed by discussion, to reinforce the learning.
3. Answer students' questions, oral and written, about HIV & AIDS.
4. Have students draw their own versions of the battle between the HIV and the immune system.
5. Assign homework.

This lesson was most recently edited February, 2010.

Materials Needed

Classroom Materials:

- video or DVD, if possible, such as:

  "What is HIV?"
  AMAZE
  https://amaze.org/video/what-is-hiv/
  Free streaming

  "HIV and AIDS"
  Human Relations Media
  https://www.hrmvideo.com/catalog/puberty-workshop-hiv-aids
  Streaming rental, DVD purchase, free preview

  Another upper elementary HIV video that complies with your school district policies.

Student Materials: (for each student)

- *AIDS: Facts for Elementary Students* (2 sides, back-to-back)
- *Family Homework Exercise: HIV/AIDS and Us*
- drawing paper
- crayons (or colored pens, markers, etc.)

Activities

1. **Use the *AIDS Factsheet* to review the concepts from yesterday's lesson.**
   Have students volunteer to take turns reading it aloud.

2. **Use a video, followed by discussion, to reinforce the learning.**
   Introduce it by explaining that even most adults have a hard time really understanding communicable diseases and the way the immune system works. Once they see this video, your students will be able to explain the immune system ... even to their parents.

   Show a video. Try to ensure that all materials...

   > provide accurate information about transmission and prevention,
   > foster compassion and hope,
   > instill appropriate concern,
   > and dispel fear and blame.

   Before starting the video you may want to suggest specific things for the class to watch for such as facts about HIV or the feelings of the people in the video.

   After you show the video, lead a discussion of it. Depending upon the contents of the video you happen to use, these questions may be *among* those you feel are appropriate (each is followed by possible responses):

   "How does the body normally protect us from illness?"

   > The first defense is the skin, represented in the movie by the fence.
   > Once germs get into the body, we fight them with white blood cells.
   > The leaders of the immune system are white cells called "T-cells" in the film; they recognize enemies (germs) and direct other cells to fight them off.

   "How is HIV different from most germs?"

   > The HIV can disguise itself by hiding inside a T-cell. Inside, it multiplies, making more and more new viruses.
   > In the meantime, it cripples the T-cell's ability to identify invading germs. If it can't identify them, it can't direct other white blood cells to reject them.

   "How do people get the HIV, the virus that causes AIDS, inside their bodies?"

   > by "shooting up" drugs with IV needles, needles that have been used by someone who has HIV
   > by having sexual intercourse with someone who is infected with the virus

   "Why don't kids your age need to worry about catching HIV?"

   > It's caused by adult behaviors.
   > It isn't easy to catch, like a cold.

> Unless they have sex or shoot drugs, children can only get it from their mothers before they are born or during breast feeding (or during blood transfusions before 1985, when we didn't have a test to be sure blood was safe).

"Tell me a few things we all do -- daily -- that we know we don't have to worry about. "

> shaking hands
> hugging
> sharing books, pens, drinking fountains
> playing sports
> dancing
> eating in cafeterias and restaurants
> swimming in pools and lakes
> being bitten by mosquitoes
> riding on busses, elevators

Answer students' questions, oral and written, about HIV/AIDS.

If there are questions for which you don't know the answers, be honest about it. Then you (or a student) can call an expert to find out the answer. Call your local Public Health Department (in King County, WA, the HIV/AIDS Program, 206-296-4649) or the toll-free HIV/AIDS Hotline: in Washington State (1-800-272-AIDS), or anywhere in the United States (1-800-CDC-INFO [800-232-4636], 1-888-232-6348 TTY, 24 Hours/Day or E-mail: cdcinfo@cdc.gov).

3. If there are questions for which you can't think of a tasteful, sensitive answer, talk them over with a colleague or, again, contact an expert.

   For value-laden questions (as opposed to factual ones), see pages 7-11 and, especially, make sure you refer to parents or guardians and clergy:

   "... and since people have such differing beliefs about this, I would really recommend that you talk it over with your families. If you belong to a church, synagogue, mosque, or temple, find out what they believe, too."

4. Hand out drawing paper and crayons (or colored pencils, marking pens, etc.). Give students five or ten minutes to draw their own versions of the battle between HIV and the immune system. You can display thoughtful work on a bulletin board.

Homework

Students' options:

- Complete *Family Homework Exercise: HIV and Us* with an adult in your family. [1]
- Using the *HIV/AIDS Factsheet* as a model, design a factsheet for third graders. Make sure you explain that they don't have to worry about HIV at their age because it's hard to catch.

[1] See "Preparing Parents", page 6-7

AIDS: FACTS FOR ELEMENTARY AGED STUDENTS

AIDS is caused by HIV, a virus that enters the blood stream.

Acquired: A person must do something very specific to get the virus into their body. (See "The Risky Behaviors.")

Immune: The virus attacks the white blood cells in the immune system.

Deficiency: The white blood cells become too few or too weak to fight infection.

Syndrome: The virus can cause certain symptoms or illnesses in a person.

There are three ways people get HIV, the virus that causes AIDS:

1. Blood-to-blood contact.

   This happens when people share needles to shoot up (inject) drugs. Some **blood** always stays in the needle.

2. Sexual intercourse.

   The AIDS virus can live in **semen** and **vaginal fluids**. It can get into a person's body if they have sex with an infected person.

3. Mother to baby.

   The virus can pass from the woman's blood to the unborn baby during pregnancy. After the baby is born, the virus can pass during breastfeeding.

The Risky Behaviors

- Using drugs
- Sexual intercourse

The Safe Behaviors

- Hugging
- Shaking hands
- Playing with pets
- Sharing food and dishes
- Sports
- Sitting next to someone at school
- Dancing
- Using public toilets

You will have some important decisions to make as you get older.

Make choices that keep you healthy.

- Never use drugs.
- Wait until you are older to have sexual intercourse.

Things to remember:

- You cannot tell by looking if a person has HIV.
- There is no cure or vaccine for HIV.
- You cannot get HIV from casual, daily contact.
- HIV is preventable.

If you have questions call the number below. (No names asked.)

United States HIV/AIDS Hotline:
1-800-342-AIDS

Family Homework Exercise: HIV/AIDS & Us

ALL FAMILY HOMEWORK EXERCISES ARE OPTIONAL. Like all family homework, this is for two of you ... the student and an adult in your family (parent, step-parent, aunt, uncle, etc.)

DIRECTIONS

1. Each of you, name a couple of people you love over the age of 28.
2. Now choose one of these people to think about together. Fill his or her name in the blanks in the story below.
3. Read and discuss the story together:

What if, *back in 1983,* _____ *was in a car accident? He or she was so badly hurt, the doctor had to do a blood transfusion. If it had been after the Spring of 1985, the blood would have been tested, but in 1983 there was no test. Last week,* _____ *went to the doctor for a regular check-up and the doctor wanted to do an HIV test.*

_____ *said, "OK. " If it turns out that*

_____ *does have HIV, the virus that causes AIDS, what will our family do?*

NOTE: Turn in a Family Homework Confirmation Slip by _____ if you want credit.