



Immune Platoon

LESSON | Immune Platoon

GRADE LEVEL | 1st and 3rd grade

ESTIMATED TIME | 20-30 minutes

OBJECTIVE | Teach students about the immune system and how it fights off germs, and how vaccines help provide protection for your body.

MATERIALS | None

KEY TERMS

Germ

A GERM, also known as a MICROBE, is a living thing that is too small to be visible to the naked eye. Two types of germs are bacteria and viruses. You're surrounded by germs all the time, and normally they live together peacefully. Some types help you, like the bacteria in your stomach that help break down food. There are, however, some types that can make you sick.

Virus

A virus is a very tiny germ, that can cause illnesses like flu, chickenpox, and measles. Viruses are very small and lightweight. So small that they can fly through the air, survive in water, or even on the surface of your skin without being noticed. Viruses can be passed from one person to another by shaking hands, touching food, through water, or through the air when a person coughs or sneezes. Viruses can also be passed on by insect bites, animals, or through bad food.

Bacteria

Bacteria are teeny single-celled and living organisms. Bacteria are much bigger than viruses, but they're still way too small for you to see. There are thousands of types of bacteria, and they live anywhere: in the dirt, in ponds/lakes, in the ocean, on doorknobs, bathrooms, in your stomach and even on your skin! Most bacteria aren't dangerous, but some are and can make us sick.

White Blood Cells

White blood cells are cells that live in our body that keep us from getting sick. They act like super heroes, fighting off bad viruses and bacteria that try to make our bodies sick.

Immune Platoon Continued

LESSON

Your **Immune Platoon**, also called your immune system, is what your body uses to fight off bad viruses and bacteria that would try to make you sick. They live inside your body and are your body's superheroes that fight off infection from the villains, viruses and bacteria.

THE PLATOON PATROL

- > The Immune Platoon has a series of secret headquarters located throughout your body, hidden inside tissues and organs like your bone marrow, thymus, tonsils and spleen. Within these areas your Immune Platoon produces and trains other white blood cells to fight disease; move from one place to another inside your body; or simply wait quietly, ready to swing into action at the first sign of an enemy attack.
- > Around the clock, white blood cells constantly patrol your insides on the lookout for enemies who attack your good health. The enemies could be viruses, bacteria and even pollen. These can cause infections or other diseases such as influenza and chickenpox.

SPOTTING THE ENEMY

- > When your Immune Platoon members spot an enemy in your body, their response depends upon their particular "super-power." Different members possess different powers and abilities that work against different types of enemies.
- > Once your Immune Platoon figures out how to defeat the enemies, they will remember what works against them. Should an enemy enter your body again, your Immune Platoon will move to attack it before it has a chance to make you sick.

THE VACCINE

- > Your Immune Platoon can learn how to fight off enemies with the help of a vaccine. Many vaccines contain bacteria and viruses that have been weakened or killed by scientists and doctors. Others are created from cells that resemble bacteria and viruses but, because of how they were made, can't cause you to get an infection.
- > These vaccines are injected as a shot into your arm or sprayed up your nose and enters your body to train your Immune Platoon. And since the weakened bacteria and viruses, or copies of bacteria and viruses, in a vaccine don't have the "super-powers" that the live and active versions of the disease have, they can't make you sick. They will just help train your Immune Platoon! Your immune system can practice fighting off the vaccine without the danger of getting sick with the disease.
- > Once your immune system figures out how to fight vaccines, they remember what works against them. If the active bacteria or virus enters the body, your Immune Platoon will move to attack it before it has a chance to make you sick. This is called having immunity to a disease, and means your body knows how to fight it off quickly and keep you healthy.

