

**Video 3**

***Fighting the Invaders: Simple Immunology***

**Summary:**

Students will discover the function of the immune system and how vaccines support immune response.

**Target Grades:**

6th – 9th

**TEKS**

● Biology 10 (A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals

**Learning Objectives:**

* Describe how immune systems respond to attacks and then adapt.
* Describe two ways that immune systems become stronger
* Describe two ways immune systems become weaker.
* List two reasons why experts recommend vaccinations.

**Outline:**

1. Immune Systems Learn
   1. Babies’ immune systems don’t work as well because they haven’t learned – babies get sick often.
   2. Teen/young adults’ immune systems have learned much – older children don’t get sick as often.
2. Immune Systems Can Weaken and/or be Damaged Over Time
   1. Older immune systems slow down and get weaker.
   2. Diseases can damage immune systems.
   3. Medical treatments can damage immune systems.
   4. Some people are born with poor immune systems.
3. Immune Systems Fight in Multiple Ways
   1. Immune systems fight bacteria one way.
   2. Immune systems fight viruses another way.
4. Vaccines Help
   1. Vaccines trick immune systems into thinking they’ve already been attacked by that pathogen and remember it for next time.
   2. Vaccines help prevent people from getting sick and then passing on the virus/bacteria to the next person.

**Prior to Viewing the Video**

* Give students two minutes to list five ways our bodies fight off bacteria and viruses.

**After Viewing the Video**

* Students should correct and/or add to their lists. They will then create a two to three panel comic illustrating how vaccines aid the immune system in fighting pathogens.