Preventing the Spread of Disease Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Notes/ Classwork Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_

Vocabulary

Vaccine

Immunization

Antibody

Antigen

How do Vaccines work!

<https://app.discoveryeducation.com/player/view/assetGuid/163d7d9f-78cf-4905-b94a-d836c7b330b6>

Infections are the most common cause of human disease.  Disease-causing microbes (**pathogens**) attempting to get into the body must move past the body’s external armor, usually the skin or cells lining the body’s internal passageways, and your immune system if these microbes get inside.  Your immune system works because is able to tell if an invader (virus, bacteria, parasite, or other another person's tissues) has entered it—even if you aren't consciously aware that anything has happened. Your body recognizes this invader and uses a number of different tactics to destroy it.

**Vaccines** help the body’s immune system prepare for future attacks. Vaccines consist of killed or modified microbes, parts of microbes, or microbial DNA that trick the body into thinking an infection has occurred.  A vaccinated person’s immune system attacks the harmless vaccine and prepares for invasions against the kind of microbe the vaccine contained. In this way, the person becomes **immunized** against the microbe: if re-exposure to the infectious microbe occurs, the immune system will quickly recognize how to stop the infection.

Common Vaccines-

* Polio
* MMR (measles, mumps, rubella)
* DTP (diphtheria, tetanus, pertussis)
* Hepatitis B
* Varicella (chicken pox)

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**antibody**  
**Definition:**A substance that fights a disease by protecting the body from a virus or bacteria.  
**Context:**Vaccines cause the body to develop **antibodies**to fight a disease.  
  
**antigen**  
**Definition:**A substance such as bacteria or a virus that invades the body and stimulates the production of an antibody.  
**Context:**Recognized as a threat by the immune system, an **antigen**, such as the streptococcus bacteria, triggers the production of an antibody.  
  
**immunization**  
**Definition:**The process of protecting the body against disease using   
**Context:**Most children complete their **immunization** schedule before they begin school.  
vaccines or serums.   
**vaccine**  
**Definition:**A substance that protects a body against a disease by causing the body's immune system to produce antibodies.  
**Context:**Some **vaccines** provide lifelong protection against infection, while others require several doses given at regular intervals.