**STUDENT NAME:**

Antibodies Neutralizing Pathogens

Watch [Immune System: Innate and Adaptive Immunity Explained](https://www.youtube.com/watch?v=PzunOgYHeyg) by Science ABC and answer the questions below.

1. Per the video, the immune system is an army that protects the body from:
   1. Antibodies, dust, and pixie cells
   2. Mechanical injuries, foreign particles, and the entering of germs.
   3. Acne, body odor, and sweat
   4. Nothing
2. What is the difference between innate immunity vs. adaptive immunity?

Innate Immunity:

Adaptive Immunity:

Use the Word Bank, to complete questions 3-5. Words may be used more than once.

Word Bank

|  |  |
| --- | --- |
| Bacteria | Mucus |
| Viruses | Macrophages |
| B-Cells | Microorganisms |
| Antigens | Skin |

1. Name the three lines of defense that works with the Innate System to prevent pathogens from entering the immune system.

a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Three common pathogens are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that causes disease.
2. \_\_\_\_\_\_\_\_\_\_ produce antibodies which bind to specific \_\_\_\_\_\_\_\_\_\_\_\_\_ of pathogens. They act as a signal for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to come kill marked pathogens.

1. What are the two cells used to help keep record of pathogens? What is the purpose of keeping a record of pathogens and their antigen?

1. How can knowledge of antigens be used to fight future infections pathogen?