

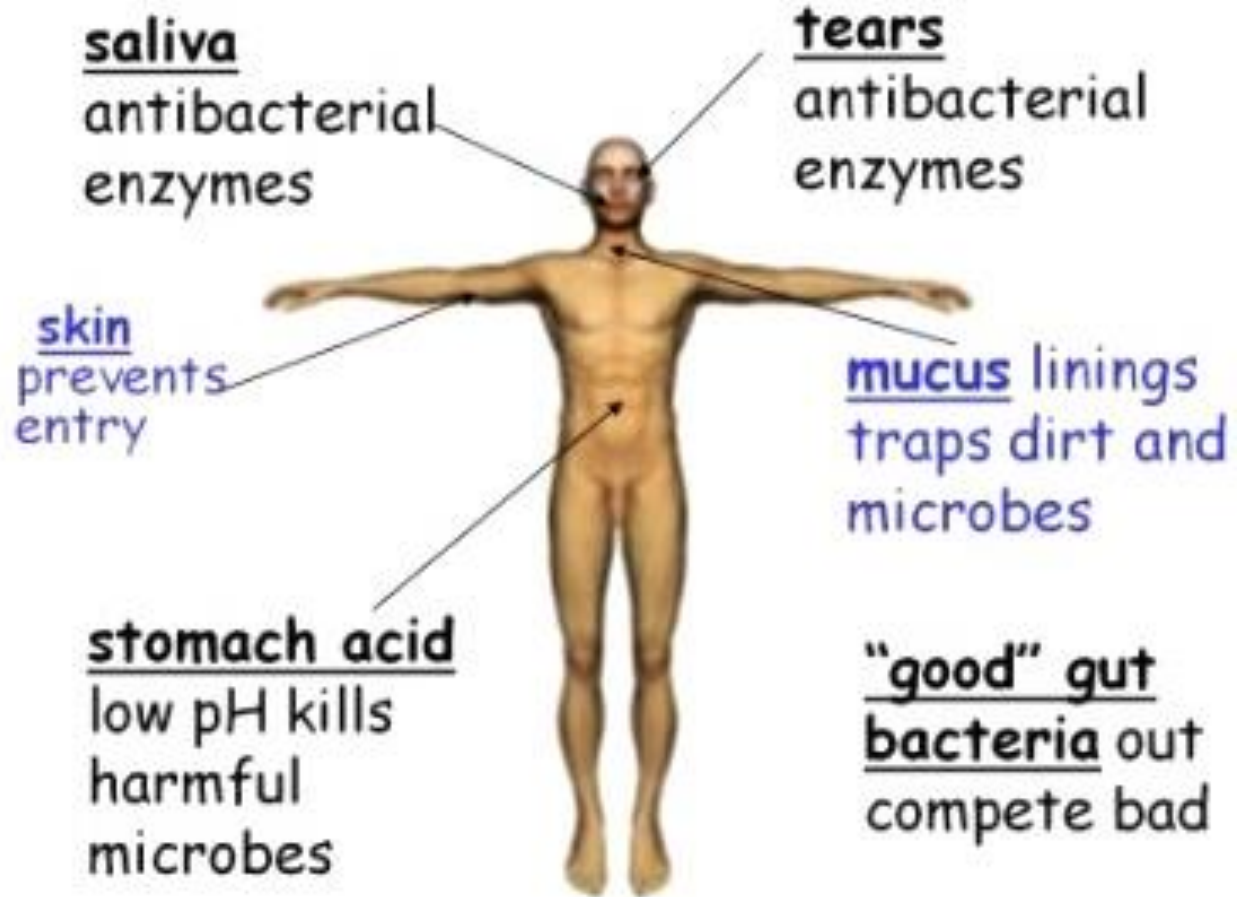
# 6<sup>th</sup> grade science for Nov. 15

- Theme for the rest of this week: Infectious Diseases!
- Finish your virus models

Your immune system!

# INNATE IMMUNITY

## First Lines of Defence



Beyond the first lines of defense: immune cells

## LEARNING OBJECTIVES

Students will be able to:

- state that some diseases are the result of infection.
- describe the risks associated with biological hazards, such as viruses.
- name ways that infectious disease can be prevented, controlled, or cured.
- graphically represent data created in a classroom simulation.
- describe how a disease can spread rapidly among a population.
- explain how preventive measures help defend against infection.

# 1918 Flu

## Activity Summary

Students perform a sequence of six short simulations to model how an infectious disease can spread through a human population.

## Materials for Each Student

- copies of the “Biology of Flu” student handout (one per student)
- copies of the “Tables and Graphs” handout (one per student)

## Materials for the Class

- 20 sheets of self-adhesive stickers (1-cm diameter) in two colors
- stopwatch or timer

Yellow = Infected

Pink = Vaccinated

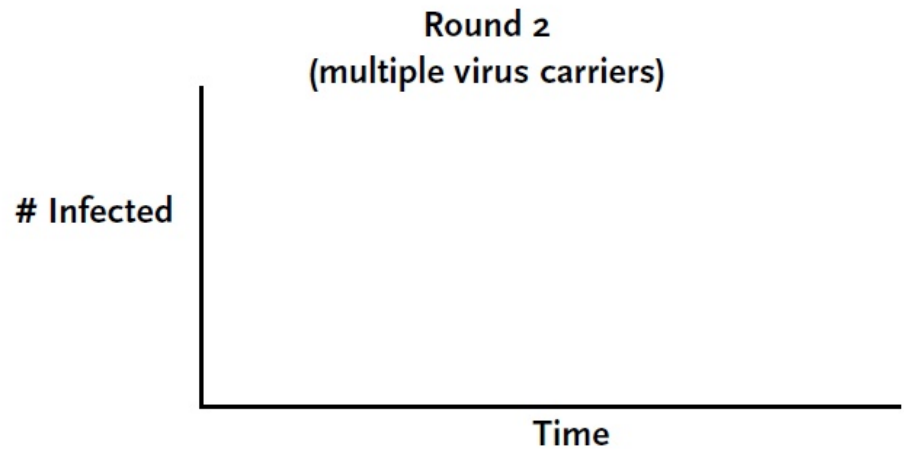
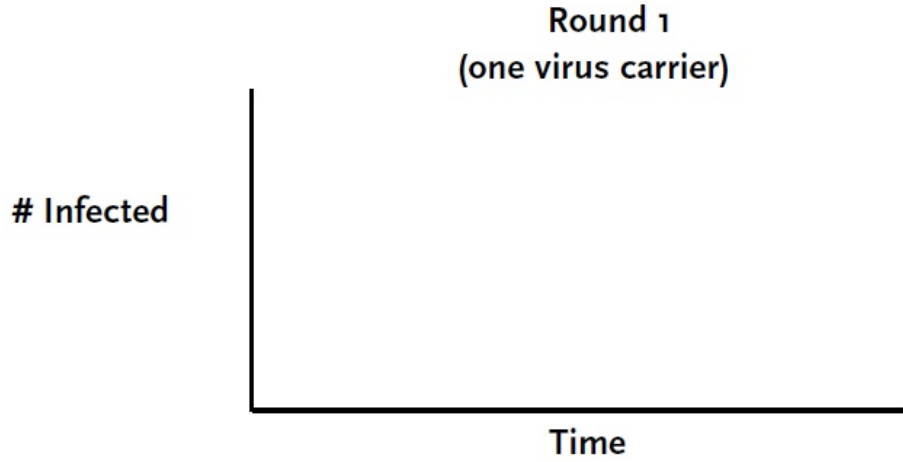
# PROCEDURE

- 1 Ground rules for today's simulation of how a virus spreads through a population:
  - In each round, move slowly, quietly, and calmly around the room.
  - If someone puts a sticker on your arm or hand, make sure it stays in place.
  - Don't actively avoid or seek out the virus carrier.

# DATA TABLE FOR ROUNDS 1 AND 2

|                 | Game Round 1 | Game Round 2 |
|-----------------|--------------|--------------|
| Number Infected |              |              |

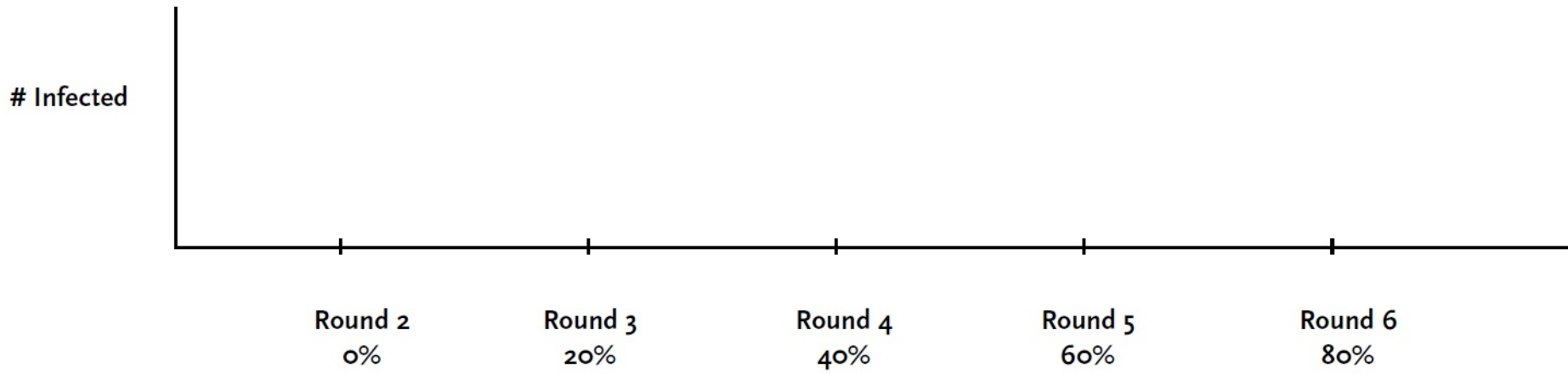
# GRAPHS OF THE GENERAL INFECTION PATTERNS IN ROUNDS 1 AND 2



# DATA TABLE FOR ROUNDS 2 AND 6

| Round | Percent Inoculated | Number Inoculated | Number Infected |
|-------|--------------------|-------------------|-----------------|
| 2     | 0%                 | 0                 |                 |
| 3     | 20%                |                   |                 |
| 4     | 40%                |                   |                 |
| 5     | 60%                |                   |                 |
| 6     | 80%                |                   |                 |

## GRAPH OF DATA FROM ROUNDS 2-6



© 2006 WGBH Educational Foundation