

## SUPPLEMENTAL INFORMATION

### Lesson 1 – Does Size Matter? Comparing Viruses, Bacteria, and Human Cells

#### **GAME SUPPLEMENT: What Causes the Disease?**

This supplement includes instructions and disease game cards for an optional sorting game activity during the ENGAGE section of lesson 1. Use the “List of Diseases and Causes” on page 10 of the lesson plan as a reference for this game.

#### **Game Prep**

- Players will need 3 columns to sort disease game cards when playing the game.
  - Draw 3 columns on a piece of poster board or butcher paper, or designate the columns on a table top with masking tape.
  - Label each of the 3 columns with one of the following game categories: bacteria, virus and neither.
- Each team will need a disease game card set of 5 cards.
  - This supplement provides 5 sets of game cards designed to contain at least one card for each disease category. Each set is pre-sorted onto a single page for easy printing. See pages 3-7 of this document.
  - We recommend printing each game card set on a different colored paper, or color coding the cards with highlighters or markers. Alternatively, you may wish to write the disease names on sticky notes or index cards.
- Empty blocks are provided in case you wish to add other diseases to the game.

#### **Game Play**

- Divide students into teams and give each team a set of disease game cards.
- Each card should be placed into the column students think it is caused by (virus, bacteria or neither).
- After the teams have finished placing their cards, discuss the cause for each disease. Depending on time, you can reveal the correct responses, or you can have students share their guesses and why. If you plan to have students research the causes online, you may have teams record their results and reveal winners after the class research is complete.
- Score the results. Teams get one point for each correctly placed card. The team with the most points wins.
- You may wish to prepare a few tie-breaker cards in case of a tie.

## Variations

- Small groups:
  - Set up teams of 4-5 students per table and have them make 3 disease columns.
  - Each individual gets their own set of cards to sort.
  - Individuals can compete within their group. To make this activity more challenging, set a time limit.
  
- Relays:
  - Set up the class in the small group format, but don't hand out the cards.
  - Tell students they will have 5 minutes, but only 1 student can add their cards at a time.
  - When the first student is done, they should then tag the next student who picks up their card set, places them, tags the next player, etc.
  - To increase team interaction, add a "lightning" round after the 5-minute initial play. During this period (e.g., 1 minute), allow team members the opportunity to confer about, and adjust their responses as a group before revealing the correct answers.

**CERVICAL  
CANCER**

**TYPHOID**

**EBOLA**

**DIPHTHERIA**

**RINGWORM**

**CANCER**

**MONONUCLEOSIS**

**LYME  
DISEASE**

**SALMONELLOSIS**

**CHICKENPOX**

**ALZHEIMER'S  
DISEASE**

**HEPATITIS B**

**MALARIA**

**TETANUS**

**RUBELLA**

**PERTUSSIS**

**JAPANESE  
ENCEPHALITIS**

**DIABETES**

**MEASLES**

**ROTAVIRUS  
GASTROENTERITIS**

**CHOLERA**

**ZIKA**

**COMMON  
COLD**

**CTE**  
**(CHRONIC TRAUMATIC  
ENCEPHALOPATHY)**

**MENINGOCOCCAL  
MENINGITIS**