

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. Find print-ready versions of the disease game boards and cards in the middle school lesson 1 resources:

<https://vaccinemakers.org/lessons/middle/does-size-matter-comparing-viruses-bacteria-and-human-cells>

Game Prep

- Players will need 3 columns to sort disease game cards when playing the game.
 - Find three print-ready 8.5” x 11” game boards in the lesson resources.
 - Alternatively, draw three columns on a piece of poster board or butcher paper or designate the columns on a tabletop with masking tape.
 - If not using the print-ready versions, label each of three columns with one of the following game categories: **BACTERIA**, **VIRUS** and **NEITHER**.
- Each team will need a disease game card set of 5 cards.
 - Find five sets of print-ready game cards in the lesson resources.
 - Sets are designed to contain at least one card for each disease category.
 - Each set is pre-sorted for easy printing. The card set pages should be printed using the 2-sided setting as the spacing has been formatted for each set. We recommend printing each game card set on a different colored paper, or color coding the cards with highlighters or markers.
 - Empty blocks are provided if you want to add other diseases to the game.
 - Alternatively, you can write the disease names on sticky notes or index cards.

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.