SfS Away from the Classroom!

AP 7: Spread of Infectious Diseases (Recommended for Grades 3-8)

Please use the following resources to learn about infectious diseases.

Watch this Video: https://www.youtube.com/watch?v=4uzNnKm41W8

Answer these questions:

- How does a virus typically enter the body?
- What are some ways the body may try to get rid of or slow down a virus?
- What are some of the ways you can prevent the spread of viruses or other diseases?

Activities:
Follow these instructions to play a game that models the spread of an infectious disease!

You will need:

• 1 piece of paper	• 1 pencil	• Scissors (optional)

1. Fold your piece of paper in half 5 times (2 folds from the long edge and 3 folds from the short edge). Unfold the paper and cut (or carefully rip) along the creases. You should now have 32 pieces of paper.
2. Use your pencil to make a large "X" on one piece of paper. This piece is "infected": our "Patient Zero".

Round 1:

3. Spread out all the pieces of paper on a flat surface. The piece of paper with the "X" should be face-up.
4. Close your eyes and randomly move the pieces around.
5. Open your eyes and find the piece with the "X". Imagine that card has coughed or sneezed (without covering their mouth) and has infected the nearest piece of paper. Mark that piece with an "X" as well. How many total infected pieces are there now? *(There should be 2!)*

Round 2:

6. Repeat steps 3-5, starting with your 2 infected "X" pieces.
   How many total infected pieces are there now? *(There should be 2-4!)*

7. Continue repeating steps 3-5 for a total of 5 rounds. Note how many infected pieces there are at the end of each round. *(6th-8th graders: Make a bar graph of your data with "Number of rounds" on the X axis and "Number of infected" on the Y axis. What do you notice about this pattern?)*

What do you think would have happened if the infected pieces realize they might be sick and decide to self-quarantine? Erase all the "X"s from your pieces of paper (except for the "Patient Zero"). Play the game again, starting with Step 1, but put the infected "X" card to the side, out of play. How many infected pieces do you have at the end of each round this time?

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Make observations & use Claims, Evidence, and Reasoning!

1. **Claim**: Some diseases are contagious, but some are not.
    - **Evidence**:
    - **Reasoning**:
2. **Claim**: Quarantining individuals with an infectious disease helps limit disease spread.
    - **Evidence**:
    - **Reasoning**:

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