

Mask versus No Mask Lab Results (9/20)

I. Watch the video ***Mask Versus No Mask Lab Results***. Then answer the following questions. **Sixth graders** must answer questions 1-5. **Seventh graders** must answer all 7 questions.

Background Information:

Respiratory droplets are small drops of moisture that come out of our mouths when breathing, talking, coughing, or sneezing. Some droplets are big enough to see, but many are too small. The coronavirus can attach itself to bacteria in these droplets.

A ***variable*** is something that changes in an experiment. One variable was wearing a mask or not wearing a mask.

Question 1: What was a second ***variable*** in this experiment?

An ***independent*** variable is a variable that does not rely on another variable. A ***dependent*** variable is a variable that is affected by the independent variable.

Question 2: Was wearing a mask an ***independent*** or a ***dependent*** variable?

Question 3: Was the amount of bacteria in the dish an ***independent*** or a ***dependent*** variable?

A ***control*** is something you keep the same throughout an experiment.

Question 4: One test they ran was ***sneezing*** with and without a mask. What was a ***control*** in this experiment?

Mask versus No Mask Lab Results--Grade 6 cont'd (9/20)

Scientific questions can often be phrased as “**if, then**” questions. **Conclusions**, based on evidence, tell what happened in an experiment. We often can write conclusions as “**When, then**” statements.

Here was the question investigated in these experiments: **If** a mask is worn, **then** how does this affect the amount of bacteria that reaches the plate?

Question 5: What is the conclusion for this question? (I’ll help you with the beginning. **Rewrite this** in your answer.)

When a mask was worn, **then**

The last two questions are required for **7th graders** only:

Question 6: The plates showed growth of **bacteria** and **fungi**. Why, then, does this tell us anything about masks affecting the spread of the **coronavirus**?

Question 7: Why was there so much more bacteria and fungi on the plates in the laboratory than on the plates?

This is a **formative assessment**. Focus on your **understanding** of the questions--not right/wrong or guessed/didn’t guess. For **sixth graders**, this is mostly new material. For **seventh graders** it should be mostly a review.

Rubrics (number of answers correct):

3: At least 4 out of 5. (at least 6 out of 7)

2: 2 or 3 out of 5. (3, 4 or 5 out of 7)

1: Less than 2 out of 5. (Less than 3 out of 7)