

# Viral Specificity Mini-Lab

## Purpose

The purpose of this exercise is to examine the specificity of viruses, their structure, and how they interact with the cells they infect.

## Materials

virus models

cell models

map pencils

## Safety Precautions

No special safety precautions required.

## Procedure

1. Select a virus model from the ones available for study. Draw a color diagram of your virus in the space below, labeling the nucleic acid, capsid, viral envelope and spikes (surface markers).

2. Is your virus a DNA virus or an RNA virus? \_\_\_\_\_

What evidence do you have to support your answer?

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3. The viral envelope is made of two different macromolecules. What are they?

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4. What macromolecule is the capsid made of? \_\_\_\_\_

5. What macromolecule are the spikes made of? \_\_\_\_\_

6. Now locate the cell that your virus will infect. How do you know when you have selected the correct one?

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7. Draw a color diagram showing the interaction between the virus and the cell. Label the receptor sites on the cell and the spikes on the virus.

8. Write a conclusion about the ability of viruses to infect specific cells. In your conclusion, form a hypothesis about what might happen if mutations cause viral spikes or cell receptor sites to change shape.

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