

# STUDENT WORKSHEET

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

Name \_\_\_\_\_

### Key Concepts Summary Table

<b>My Words</b> <ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li></ul>	<b>Group Words</b> <ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li></ul>
<b>Whole Class Words</b>	
<b>My Summary Statement</b>	

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### Questions: Structure and Size Comparison

Answer these questions after you have completed building your model.

1. The influenza virus measures 120 nanometers (nm) across. The bacterium that causes diphtheria measures 0.5 microns ( $\mu\text{m}$ ) in diameter. What is the approximate ratio of the sizes of these two disease-causing agents? Show your method.

2. What is the significance of the size of viruses compared to human cells?

3. Josh couldn't make it to class and missed this lesson. Describe an example using everyday objects that illustrates the difference in scale between a human cell and a virus that you could use to explain the model learned in this lesson to Josh.