**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Seat:\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Plants and Animal Cells**

**Background Information:**

One of the first scientists to look at cells under a microscope was an English scientist by the name of **Robert Hooke**. He viewed and described the appearance of cork under the microscope and decided to name the tiny box-like structures that he observed “cells” because they looked like the small chambers where monks lived.

By the early part of the 19th century, it was accepted that all living things are composed of cells. Cells come in a variety of shapes and sizes, and cells perform different functions. Although cells may appear outwardly different, they resemble each other because they share common structures. In this lab you will look at two types of cells, a human cheek cell and an onion cell and see how they are similar and how they are different.

**Previous Knowledge:** Compare and contrast **plant** and **animal** cells



**Reading Station:**

1. While you wait to use a microscope at one of the prepared stations, you will be reading and taking notes on a reading.
2. Read pages\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Write down every heading (usually underlined, large font, or bold)
4. Record any key information in bullets from the paragraph(s) under each heading
5. Record any vocabulary (usually in bold, can also be defined in the glossary)
6. Groups will be called by table to visit the microscope stations

**Plant Cell Procedure:**

1. Set up the microscope.
2. Place plant slide on the stage and focus under low power
3. Turn to medium power and focus using only the fine adjustment knob.
4. Turn to high power and focus using only the fine adjustment knob.
5. Neatly draw one or two of the plant cells in the space provided. Label the following: **cell wall, cell membrane, nucleus, nuclear membrane, cytoplasm**
6. Return to your seat

**Animal Cell Procedure:**

1. Set up the microscope.
2. Place animal cell slide on the stage and focus under low power
3. Turn to medium power and focus using only the fine adjustment knob.
4. Turn to high power and focus using only the fine adjustment knob.
5. Neatly draw one or two of the plant cells in the space provided. Label the following: **cell membrane, nucleus, nuclear membrane, cytoplasm**
6. Return to your seat

**Drawings:**

 **Plant Cell Animal Cell**

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**Discussion Questions:** Answer the following questions in complete sentences

1. How does the shape of the plant cells differ from that of the animal cells?
2. Which cells seem to be arranged in a more regular pattern?
3. What structures were you able to see in both types of cells?

**Post Lab Understanding:**  Use observations from the labs to further your venn diagram from the beginning of the lab. Compare and contrast plant and animal cells.

