

Name _____

Date _____ Period _____

The Cell Theory

Key Concept: The cell theory states that

- All living things are made of cells.
- Cells are the basic units of structure and function in living things.
- Living cells come only from other living cells.

Directions: *Complete the following passage by filling in the correct missing words or phrases.*

A cell is defined as ____the basic units of structure and function in living things____. Cells were first described by the English scientist ____Robert Hooke____, who thought that they resembled the tiny rooms, or cells, where monks live. Actually, ____Hooke____ did not see living cells, just the ____cell walls____ of dead cork cells. Cells contain structures called ____organelles____. This term means tiny ____organs____.

The discovery of cells and their internal parts was made possible by the invention of the ____microscope____ in the ____late 16th____ century. This was around the same time as the English Bill ____of Rights____. During the next two hundred years, the work of many scientists led to the development of the ____cell____theory. This theory can be summarized by three statements:

1. ____All living things are made of cells____
2. ____Cells are the basic units of structure and function in living things____
3. ____Living cells come only from other living cells____

Describe how each of the following scientists contributed to our knowledge of cells, including the year of their contribution. On the back of this sheet, construct a timeline including the scientists and their contributions, Columbus sailing for the New World, the English Bill of Rights, the signing of the Declaration of Independence, the French & Indian War, our War for Independence, and Lewis and Clark exploring the American West.

1. Zacharias & Hans Janssen ____Developed first microscope 1590____
2. Robert Hooke ____coined term "cells" Published Micrographia 1665____
3. Anton van Leeuwenhoek ____Improved microscope. Looked at blood, rainwater, and scrapings from his teeth 1674____
4. Mathias Schleiden ____co-founder of cell theory – 1st and 2nd statements 1838____
5. Theodor Schwann ____co-founder of cell theory – 1st and 2nd statements 1838____
6. Rudolph Virchow ____Added third statement of cell theory 1855____

Timeline
