

## Cell Theory

Recall that Robert Hooke discovered cells in the mid-1600s. Many people showed interest in learning more about cells; however, it wasn't until the 1830s that more information was being accepted as common knowledge.

1838 – Matthias Schleiden

Botanist who realized that all plants are made of cells.

1839 – Theodore Schwann

Zoologist who realized that all animals are made of cells.

1855 – Rudolf Virchow

Proposed that all cells come from preexisting cells.

### 3 Major ideas of the Cell Theory

- 1) The cell is the basic functional and organizational unit of life.
- 2) All living things are made of one or more cells.
- 3) All cells come from preexisting cells.

Review cell parts from the powerpoint on the website.

### Plant vs animal cells

Plants	Both	Animals
cell wall chloroplast	nucleus nucleolus ribosomes	cytoskeleton
vacuole – single large vacuole	plasma membrane rough ER smooth ER golgi mitochondria lysosomes	vacuole – many small vacuoles

### Prokaryotes vs. Eukaryotes

Prokaryotes only have cell membrane, ribosomes, DNA, and sometimes cell wall (major point: NO NUCLEUS)

Eukaryotes have all of the more complex structures we have talked about – plant and animal cells are eukaryotic