# Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_

**\* Did you know that the egg yolk is the largest cell?**

**Cell Theory Notes/ Questions**

Explain how each of the following scientists contributed to the formation of the cell theory.

1. Anton van Leeuwenhook:
2. Robert Hooke:
3. Matthias Schleiden:
4. Theodore Schwann:
5. Rudolf Virchow:
6. Now put it all together. List the three parts of the cell theory

a.

b.

c.

**Endosymbiotic Theory Notes**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells developed into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells.

* They evolved by developing a symbiotic relationship with a primitive \_\_\_\_\_\_\_\_\_\_\_\_ bacteria and a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + This happened through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (engulfing)
  + The result was the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of eukaryotic cells.

Support for this theory: - Same size and structure

* Cell division same as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Mitochondria and Chloroplast have their own \_\_\_\_\_\_\_\_\_\_ that is different from the DNA of the nucleus.
* Double \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**So in summary:** Chloroplasts and Mitochondria are descendants of once free-living prokaryotes that were engulfed by larger cells, establishing a symbiotic (mutually beneficial) relationship.

**Draw, and color Fig. 14.5 pg. 385 below…. Endosymbiotic Theory**