**Cell ORGANELLES**

Cells are composed of many different organelles that serve separate purposes within the cell.

**The Cell Membrane** separates the \_\_\_\_\_\_\_\_\_\_\_ of the cell from it’s \_\_\_\_\_\_\_\_\_\_\_.

**The Cytosol or Cytoplasm** is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ found in the cell. The organelles are suspended in the cytosol.

**The Nucleus** is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell. The nucleus contains \_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. DNA dictates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and how it is going to do it (through controlling the production of proteins).

**Ribosomes** make \_\_\_\_\_\_\_\_\_\_ from amino \_\_\_\_\_\_\_\_\_\_.

**Rough Endoplasmic Reticulum** (rER)has \_\_\_\_\_\_\_\_\_\_\_ attached to it. The Smooth Endoplasmic Reticulum (sER) has no ribosomes attached to it

The **Endoplasmic Reticulum** is for \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ such as \_\_\_\_\_\_\_\_\_\_\_\_. The protiens and other materials are transported away from the ER in small \_\_\_\_\_\_\_\_\_\_ , which travel to the golgi apparatus.

**The** **Golgi Apparatus** sometimes called the \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_. It is responsible for the \_\_\_\_\_\_\_\_\_\_\_ of proteins and the addition of \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to them.

**The Vacuole** are \_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ that store \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_. *Vacuoles are especially important in plant cells as they provide internal support to cell rigidity. When a vacuole shrinks through water loss you can see the leaves of the plant wilt.*

**Lysosomes** are the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_. They take in \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cell parts. Lysomes contain (are filled with) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ which breakdown this \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Mitochondria** are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell. During \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the mitochondria make ATP molecules which provide all of the \_\_\_\_\_\_\_\_\_\_\_\_ the cell needs. Cells which need more \_\_\_\_\_\_\_\_\_\_\_ have more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The **Cytoskeleton** holds the threadlike \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which help hold the cell together.

**Chloroplasts** is where \_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs. This is where carbon dioxide and water are converted to glucose and oxygen. Chloroplasts are green because they contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Plant cells also have a **cell wall**. A cell wall is outside the cell \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and it shapes, \_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_ the plant cell. It is made of cellulose, a tough protein.