7-2 Cell Structure

Cell organization

* The Cell consists of many parts, but there are 2 main parts: and
* The holds the organelles of the cell, the “ ”
* Read on Page 197, how is a cell like a factory?

The Nucleus

* The nucleus of the cells by containing the and the
* Nuclear allow material (RNA, proteins, etc) to
* The region of the nucleus is the – where are assembled

Organelles that Store, Clean, and Support

* Vacuoles and Vesicles
* Vacuoles help and inside the cell
* A plant cell has vacuole that helps support structures (flowers)
* On Page 198, what is the purpose of the contractile vacuole in the paramecium?
* Vesicles materials between cell organelles, in and out of cell
* Lysosomes
* The of the cell – breakdown
* Remove “ ” that accumulates in the cell – may occur from Lysosome function
* Write 2 bullet points on the cytoskeleton and centrioles on page 199

Organelles that Build Proteins

* Ribosomes
* Small particles of found in the cytoplasm
* Produce following
* Endoplasmic Reticulum
* Where components of the cell membrane are and where are out of a cell
* Rough ER (RER)
* The ER involved in – on the surface
* Smooth ER (SER)
* Ribosomes not found on the surface
* Contains a collection of to synthesize the membrane or drugs
  + Liver
* Golgi Apparatus
* After a is made in the , it moves to the Golgi Apparatus (appears as a )
* Modifies, , and other materials to be
* The GA is similar to what on page 201?

Organelles that capture and Release energy

* Chloroplasts
* Solar
* Capture and it into during
* Stacks inside the chloroplasts are the
* Mitochondria
* Converts energy from food into the cells can use

Cellular Boundaries

* Barriers to keep things of a cell
* Cell Wall
* Support, , and the cell – to allow water and air through
* Prokaryotes and plant cells
* Cell provide the strength in plants ( )
* Where can you find cell walls? Page 203
* Cell Membranes
* Double layer ( ) that regulates what a cell
* Fatty acids (lipids) that can be hydrophobic or hydrophilic (what do they mean?)
* Draw a phospholipid molecule and label which parts are hydrophobic and philic
* On the surface of cell membranes lie attached to
* These carbohydrates act like chemical allowing cells to identify one another
* The membranes allow for certain things to cross and others to not. This is known as a