

Biology Chapter 7: Homework 7-1, 7-2, 7-3, 7-4

Hmwrk 7-1

1. Who is Robert Hooke? What is the term he used to describe what he saw?
2. Write the three fundamental concepts of the Cell Theory?
3. What are the differences between a cell membrane and cell wall?
4. Why is a nucleus important?
5. Define prokaryotes and eukaryotes and state their differences.

Hmwrk 7-2

1. What is the main function of the cell wall? Name two other cell wall properties.
2. Draw the structure of the nucleus. Label it and define the structures.
3. What is the cytoskeleton? Define the structures that make it up.
4. Define Endoplasmic Reticulum. What is the difference between the rough and smooth ER?
5. What organelles help plant and animals cells get their energy?
6. Why do some organelles have DNA? Why isn't this DNA in the nucleus?

Hmwrk 7-3

1. What is a lipid bilayer, where is it and what is its importance?
2. How does diffusion work?
3. What is the difference between diffusion and osmosis?
4. Define isotonic, hypotonic and hypertonic solutions.
5. If molecules cannot easily cross the cell membrane, what method do they use to enter the cell?
6. What is active transport? Define endocytosis, phagocytosis and exocytosis *in your own words*.

Hmwrk 7-4

1. How do some cells stretch the concept of unicellularity?
2. Define cell specialization. Which type of cells exhibit cell specialization?
3. Describe the levels of organization. Define each one.