

## **Cell Biology Study Guide**

Review all of your Cell Biology NOTES

Study the vocabulary terms

Review the Chapter Summary for Chapter 2 and Chapter 3 in your textbook

Answer the Review and Assessment questions at the end of these chapters in your textbook

### **Cell Theory**

Recognize the individuals involved in discovering cells and developing cell theory and what they did

Hooke

Van Leeuwenhoek

Schwann

Schleiden

Virchow

List the 3 parts of the cell theory

### **Microscope**

Identify the microscope parts and state what each part does

Calculate the total magnification

Distinguish between a simple and compound microscope

Properly carry and use a microscope

### **Organelles**

Identify the parts of a cell

Describe the structure (shape) of each organelle

State the function (job) of each organelle

### **Plant vs Animal Cells**

Distinguish between organelles found in plant and animal cells

### **Cell Membrane Structure and Function/ Diffusion and Osmosis**

Identify the characteristics of a cell membrane

Distinguish between diffusion and osmosis

Distinguish between passive and active transport

Recognize diffusion and osmosis as types of passive transport

### **Obtaining Energy**

Explain the process of photosynthesis, what materials go in and the products

Identify where photosynthesis takes place

Explain the process of cellular respiration, what materials go in and the products

Identify where cellular respiration takes place

### **Cell Division (Cell Reproduction)**

Define mitosis

List the stages of cell division (the cell cycle) and what happens during each stage

Explain how cell division differs in plant cells than in animal cells

### **Cell Shapes**

Be familiar with examples provided in class (amoeba, red blood cells, nerve cells, guard cells) and how their shape allows them to do their job