**Unit 2 Cells, and Tissue Study Guide**

**A. Cells**—Define and describe function and shapes

**B. Organelles**- Know the functions of the following organelles and where they are found in a typical cell.

1. Endoplasmic Reticulum

2. Chromosomes

3. Ribosomes

4. Mitochondria

5. Plasma Membrane (aka- SPM)

6. Vacuoles

7. Lysosomes

8. Perioxisomes

9. Nucleolus

**C. Cell Transport**

1. Define diffusion, osmosis, phagocytosis, pinocytosis, endocytosis and exocytosis.

2. Describe the purpose of the Sugar Sausage Lab… be able to predict results

3. Describe the purpose of the Goldilocks Lab

4. Difference between Passive and Active Transport

5. List some things that affect the rate of diffusion

6. Another term for simple diffusion is \_\_\_\_\_\_\_\_\_\_\_\_\_.

7. Solute pumps (Sodium/ Potassium Pumps) usually use what type of cell transport?

**D. Cell Cycle**

1. Know the steps of the Cell Cycle in order and what happens during each phase.

2. When and why does DNA replicate before the cell divides?

3. Mitotic vs. Amitotic tissue types

4. Cancer is also known as \_\_\_\_\_\_\_\_\_\_\_\_\_.

5. Benign vs. malignant tumors

**E. Epithelial Tissue**

1. Define epithelial tissue.

2. What are the three main shapes of epithelial cells?

3. Cheek cells are what type of epithelial tissue?

4. Simple epithelial cells allow for \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_.

5. Describe the difference between endocrine and exocrine ducts.

6. Lymph cells are an example of what type of tissue?

**F. Connective Tissue**

1. What is the difference between a tendon and a ligament?

2. Adipose is also known as \_\_\_\_\_\_\_\_\_\_\_.

3. Define connective tissue.

4. Give 4 examples of typical connective tissues.

**G. Muscle Tissue**

1. Describe muscle tissue

2. List and give a brief description of the three different types of muscle tissues.

**H. Nervous Tissue**

1. Describe the function of nervous tissue.

2. Give some examples of nervous tissue.

**I. Lab Practical Section**

Be able to correctly identify the following tissue types using the microscope.

Simple squamous, Simple cuboidal, Simple columnar, Stratified Squamous, Different types of Connective tissue ( Bone and blood), Nervous tissue, Cardiac Muscle, Striated Muscle and Smooth Muscle.

Be able to calculate total magnification on a microscope.