

## Chapter 1: The Human Organism

### I. Anatomy and Physiology

#### A. Anatomy - study of structure

1. Studying structural changes from conception to adulthood is called:

\_\_\_\_\_

2. Embryology is the study of \_\_\_\_\_

\_\_\_\_\_

3. The study of cellular structure is referred to as \_\_\_\_\_

4. A histologist studies the anatomical structure of \_\_\_\_\_

5. Gross anatomy refers to \_\_\_\_\_

\_\_\_\_\_

6. Studying one body system at a time is \_\_\_\_\_

7. Studying all structures contained in the arm is \_\_\_\_\_

8. Surface Anatomy refers to \_\_\_\_\_

\_\_\_\_\_

9. Creating pictures of internal body structures is \_\_\_\_\_

#### B. Physiology - study of function

1. A cell physiologist would study \_\_\_\_\_

\_\_\_\_\_

2. Studying how the mouth, esophagus, stomach, and intestines function together to digest food would be an example of \_\_\_\_\_

### II. Structural and Functional Organization

#### A. Chemical Level

1. Basic components are \_\_\_\_\_

2. The basic components are joined together to form \_\_\_\_\_

#### B. Cell Level

1. Basic unit of \_\_\_\_\_

2. Made up of small structures called \_\_\_\_\_

C. Tissue Level

1. Composed of: \_\_\_\_\_  
\_\_\_\_\_
2. Four basic types: \_\_\_\_\_, \_\_\_\_\_  
\_\_\_\_\_, and \_\_\_\_\_

D. Organ Level

1. Composed of: \_\_\_\_\_  
\_\_\_\_\_

E. Organ System Level

1. Composed of: \_\_\_\_\_  
\_\_\_\_\_

F. Organism Level

1. In humans a \_\_\_\_\_  
\_\_\_\_\_

**III. The Human Organism - Characteristics of Life**

A. Organization

1. Large \_\_\_\_\_ are organized into \_\_\_\_\_  
which in turn form \_\_\_\_\_

B. Metabolism

1. Consists of \_\_\_\_\_

C. Responsiveness

1. Sense \_\_\_\_\_ and  
\_\_\_\_\_ to the changes

D. Growth

1. Due to cells increasing in \_\_\_\_\_ or \_\_\_\_\_

E. Development = \_\_\_\_\_

1. A primitive cell becoming specialized for vision is \_\_\_\_\_
2. Body changes that occur at puberty are \_\_\_\_\_

**F. Reproduction**

1. Involves formation of \_\_\_\_\_ or \_\_\_\_\_

**IV. Homeostasis**

A. Homeostasis is \_\_\_\_\_

1. Body conditions that change over time are known as \_\_\_\_\_
2. The normal value for a body condition is referred to as \_\_\_\_\_
3. Body conditions are not constant but vary within a \_\_\_\_\_

**B. Negative Feedback**

1. Negative means that \_\_\_\_\_
2. Negative feedback maintaining homeostasis involves:
  - a. Deviation from the set point called a \_\_\_\_\_
  - b. The deviation being detected by a \_\_\_\_\_
  - c. The deviation being analyzed by the \_\_\_\_\_
  - d. The \_\_\_\_\_ moving the variable back toward the set point.

**C. Positive Feedback**

1. Positive means that a deviation from set point causes \_\_\_\_\_

**V. Terminology and the Body Plan****A. Body Positions**

1. Describe "anatomic position": \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. If you lay down on your back you are \_\_\_\_\_
3. If you lay down on your stomach you are \_\_\_\_\_

**B. Directional Terms**

1. The proper anatomical term for up is \_\_\_\_\_
2. The proper anatomical term for down is \_\_\_\_\_

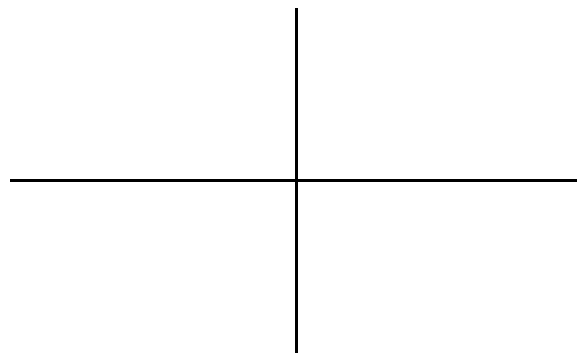
3. The proper anatomical term for front is \_\_\_\_\_
4. The proper anatomical term for back is \_\_\_\_\_
5. The term "cephalic" is synonymous with \_\_\_\_\_
6. The term "caudal" is synonymous with \_\_\_\_\_
7. In humans the term "ventral surface" refers to the \_\_\_\_\_
8. In humans the term "dorsal surface" refers to the \_\_\_\_\_
9. The end of a structure nearer the point of origin is \_\_\_\_\_
10. The end of a structure farther from the point of origin is \_\_\_\_\_
11. A structure closer to the midline of the body is said to be \_\_\_\_\_
12. A structure farther from the midline of the body is \_\_\_\_\_
13. Structures near the body surface are referred to as \_\_\_\_\_
14. Structures that are in the interior of the body are said to be \_\_\_\_\_

### C. Body Parts and Regions

1. The body from the shoulder to the elbow is properly called \_\_\_\_\_
2. The body from the elbow to the wrist is properly called \_\_\_\_\_
3. The body from the hip to the knee is properly called \_\_\_\_\_
4. The body from the knee to the ankle is properly called \_\_\_\_\_
5. Label the four quadrants of the abdomen on the diagram below:

Right

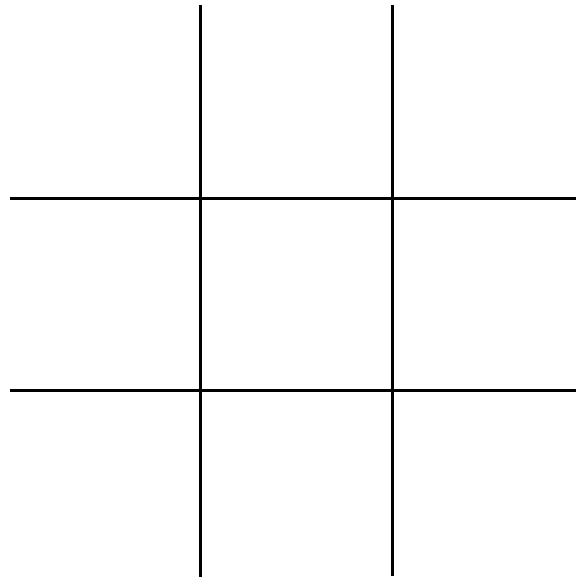
Left



6. Label the nine regions of the abdomen on the diagram below:

Right

Left



#### D. Planes

1. What vertical plane divides the body into right and left portions?  
\_\_\_\_\_
2. What vertical plane divides the body into equal right and left halves?  
\_\_\_\_\_
3. What plane divides the body into superior and inferior portions?  
\_\_\_\_\_
4. What vertical plane divides the body into anterior and posterior portions?  
\_\_\_\_\_
5. Cutting through the long axis of an organ creates a \_\_\_\_\_
6. Cutting at right angles to the long axis of an organ creates a \_\_\_\_\_
7. An oblique section is created by \_\_\_\_\_

#### E. Body Cavities

1. Thoracic Cavity
  - a. Located: \_\_\_\_\_
  - b. Median portion, which is known as the \_\_\_\_\_

- c. On either side of the median portion are found the \_\_\_\_\_
  2. Abdominal Cavity
    - a. Enclosed by \_\_\_\_\_
    - b. Contains the \_\_\_\_\_
  3. Pelvic Cavity
    - a. Enclosed by \_\_\_\_\_
    - b. Contains the \_\_\_\_\_
  4. Term "abdominopelvic cavity" refers to \_\_\_\_\_
- F. Serous Membranes
1. Found \_\_\_\_\_ and \_\_\_\_\_
  2. Visceral serous membrane will be found \_\_\_\_\_
  3. Parietal serous membrane will be found \_\_\_\_\_
  4. Between serous membranes is \_\_\_\_\_ which \_\_\_\_\_  
\_\_\_\_\_
  5. The pericardial cavity is found \_\_\_\_\_
  6. The pleural cavity is found \_\_\_\_\_
  7. The peritoneal cavity is found \_\_\_\_\_
  8. Mesenteries
    - a. Composed of \_\_\_\_\_
    - b. Connect what to what? \_\_\_\_\_  
\_\_\_\_\_
    - c. Functionally mesenteries \_\_\_\_\_  
and \_\_\_\_\_
    - d. Organs that are directly attached to the body wall and covered only with a parietal peritoneum are referred to as being \_\_\_\_\_