

**Anatomy and Physiology**  
**Honors Anatomy**

**Anatomy**

1. The study of structures of the human body is called \_\_\_\_\_.

**Match the terms to their description.**

- |                           |                                                                  |
|---------------------------|------------------------------------------------------------------|
| _____ 2. Atomic imaging   | A. Study of a structures external features.                      |
| _____ 3. Regional Anatomy | B. Study of the body by systems.                                 |
| _____ 4. Surface anatomy  | C. Study of the organization of the body by areas.               |
| _____ 5. Systemic anatomy | D. Study of internal structures using x-rays, MRI, or ultrasound |

**Physiology**

6. The study of the processes and functions of the human body is called \_\_\_\_\_.

a. The goals of physiology are to understand and predict the body's responses to \_\_\_\_\_ and to understand how the body maintains conditions within a \_\_\_\_\_ of values in the presence of a continually \_\_\_\_\_.

**Match the terms to their description.**

- |                        |                                                                     |
|------------------------|---------------------------------------------------------------------|
| 7. Cellular physiology | A. The study of the processes or functions of organ systems.        |
| 8. Human physiology    | B. The study of the processes or functions of organelles and cells. |
| 9. Systemic physiology | C. The study of the processes or functions of a human organism.     |

**Structural and Functional Organization**

**Using the list below, create a flow map illustrating the levels of organization in the human body.**

- atoms
- cells
- macromolecules
- molecules
- organ systems
- organelles
- organism
- organs
- tissues

Using the list of organ systems below, write the organ systems underneath their general functions. No organ system will be used more than once.

Integration, Coordination and Regulation

Maintenance of the Body

Reproduction and Development

Support, Movement, Protection

Cardiovascular System

Integumentary System

Nervous System

Skeletal System

Digestive System

Lymphatic System

Reproductive System

Urinary System

Endocrine System

Muscular System

Respiratory System

Characteristics of Life

Match the characteristics of life with their descriptions.

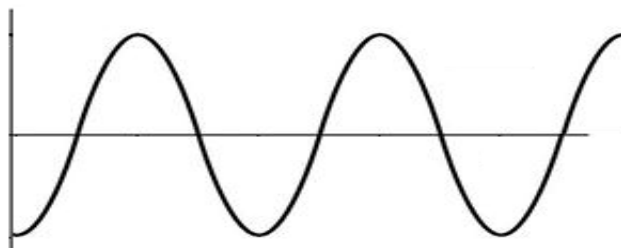
- \_\_\_\_\_ 10. Development
- \_\_\_\_\_ 11. Growth
- \_\_\_\_\_ 12. Metabolism
- \_\_\_\_\_ 13. Organization
- \_\_\_\_\_ 14. Reproduction
- \_\_\_\_\_ 15. Responsiveness

- A. The formation of new cells or new organisms.
- B. The ability to use energy to perform vital functions.
- C. The changes an organism undergoes through life time.
- D. The ability of an organism to sense changes in he environment and make adjustments that help maintain its life.
- E. The condition in which the parts of an organism have specific relationships to each other and the parts interact to perform specific functions.
- F. An increase in size of all or part of the organism.

Homeostasis

16. \_\_\_\_\_ is maintaining a constant, stable environment within the body.
- a. Conditions whose values can change are called \_\_\_\_\_.
  - b. Ideal normal values are called \_\_\_\_\_.
  - c. Increasing or decreasing values around the set point is called the \_\_\_\_\_.

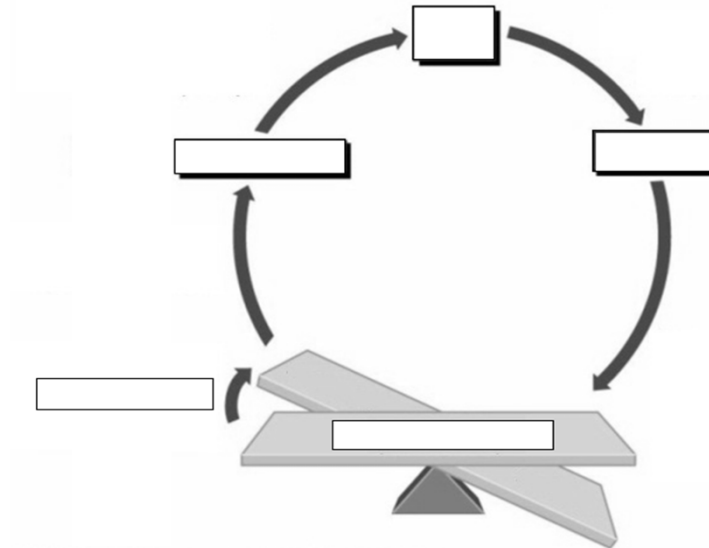
On the graph below, color and label the normal range and set point.



17. A \_\_\_\_\_ - \_\_\_\_\_ mechanism is a homeostatic mechanism that responds to a deviation by making the deviation around the set point smaller or resisting the deviation.
- A \_\_\_\_\_ monitors the value of a variable.
  - A \_\_\_\_\_ establishes a set point around which the variable is maintained.
  - An \_\_\_\_\_ can change the value of the variable

Using the list below, label the parts of a negative-feedback mechanism.

- Control center
- Deviation
- Effector
- Receptor
- Set point



18. A \_\_\_\_\_ - \_\_\_\_\_ mechanism is a homeostatic mechanism that responds to a deviation by making the deviation greater.