

# Summer Preparation for Anatomy and Physiology

This completed assignment is due the first day of class. There will be an assessment on this material the first week of class.

Web resources - Use the following resources to complete this assignment. Other resources are available online with a basic search of terms. Also, books on Anatomy and Physiology are available to borrow from the public library or for purchase at local or online stores.

CrashCourse A&P Video Intro - covers many of the terms in this assignment

Pearsons Chapter 1 Into to A&P - matching, fill in the blank, and labeling practice

GW Learning Health Sciences - use Chapter 1, Lessons 1.1 and 1.2 which include flash cards, crossword puzzles, vocabulary games, matching activities, and self-assessments

Cliff Notes Introduction to Anatomy and Physiology - Overview of key terms

1. Define anatomy.

2. Define physiology.

3. Describe how anatomy and physiology are interrelated (complementarity of structure and function).

4. Below are the different levels of structural organization that make up the human body, define them and explain their relationships.

a. Chemical

i. Atoms

ii. Molecules

b. Cellular

i. Organelles

c. Tissue

d. Organs

e. Organ Systems

f. Organism

5. Construct a diagram with your drawings that shows the different levels of structural organization of the human body and how they are related.

6. Define the following characteristics necessary to maintain life in humans. Along with each definition sketch a small picture that will remind you of the characteristic.

Maintain boundaries

Metabolism

Movement

Excretion

Responsiveness

Reproduction

Digestion

Growth

7. Define homeostasis.

8. Explain how the receptor, control center, and effector work together to maintain homeostasis.

9. What is the anatomical position?

10. Watch the video found on the following website. Write about the various systems of the body and their relationship with each other and with the outside world.

[The Body Relationship to the Outside World](#)

11. For anatomical studies, the body is often cut along various planes. Define the following planes.

a. Sagittal plane

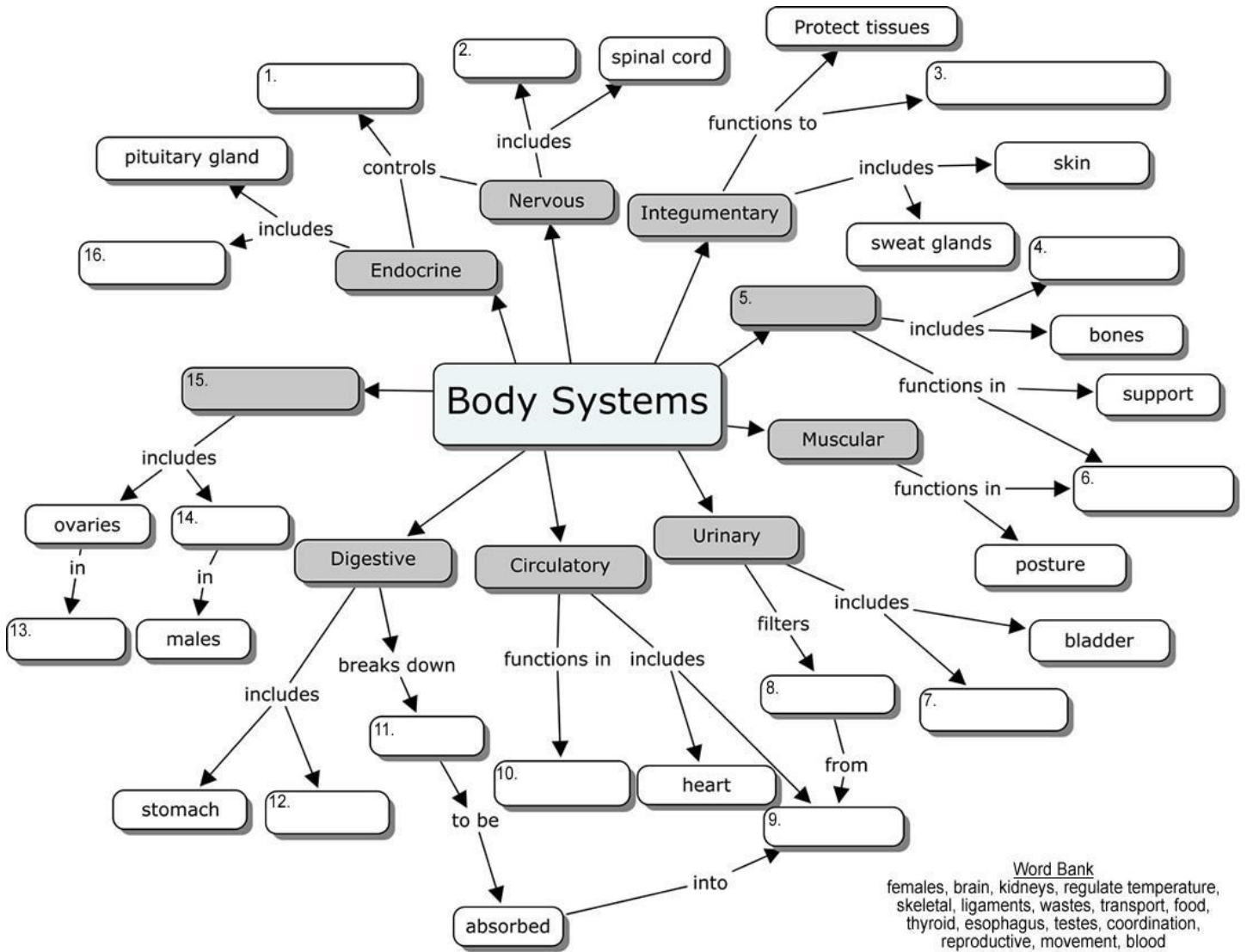
b. Parasagittal plane

c. Frontal plane

d. Transverse plane

12. Below are the 11 organ systems of the body; identify their major components, and briefly explain the major functions of each system.
- a. Integumentary system
  
  - b. Skeletal system
  
  - c. Muscular system
  
  - d. Nervous system
  
  - e. Endocrine system
  
  - f. Cardiovascular system
  
  - g. Lymphatic system/Immunity
  
  - h. Respiratory system
  
  - i. Digestive system
  
  - j. Urinary system
  
  - k. Reproductive system
    - i. Male
    - ii. Female

13. Complete the following diagram. Original version found [here](#).



**Word Bank**  
 females, brain, kidneys, regulate temperature,  
 skeletal, ligaments, wastes, transport, food,  
 thyroid, esophagus, testes, coordination,  
 reproductive, movement, blood

14. Complete the following chart of directional terms.

<b>Term</b>	<b>Definition</b>	<b>Example</b>
Superior		
Inferior		
Anterior		
Posterior		
Medial		
Lateral		
Proximal		
Distal		
Superficial		
Deep		



15. Complete the following diagram.

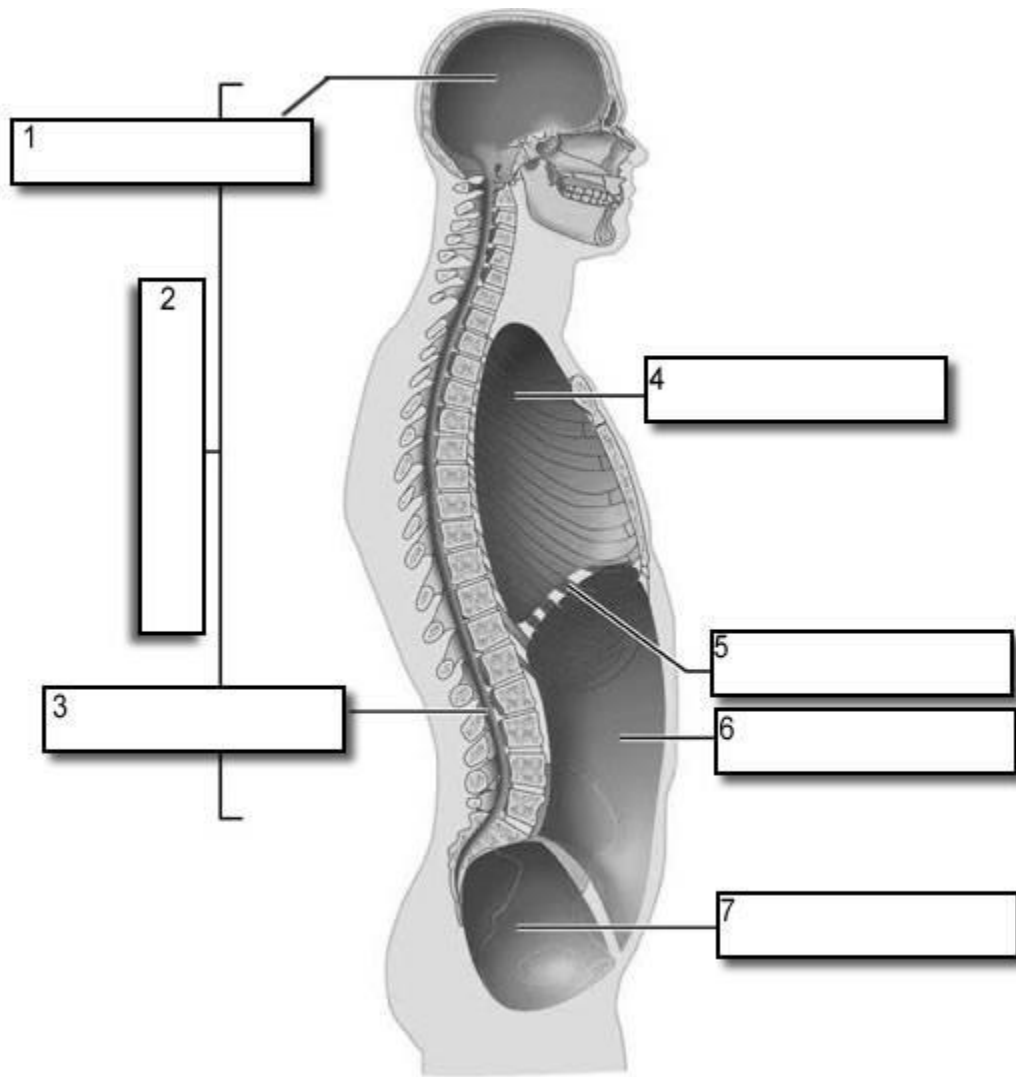


Image from [http://www.biologycorner.com/anatomy/intro/BodyCavity2\\_label.jpg](http://www.biologycorner.com/anatomy/intro/BodyCavity2_label.jpg)

16. Using the diagram above, what are organs found in each of the designated body cavities?

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.