

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

Ms. Randall Anatomy and Physiology

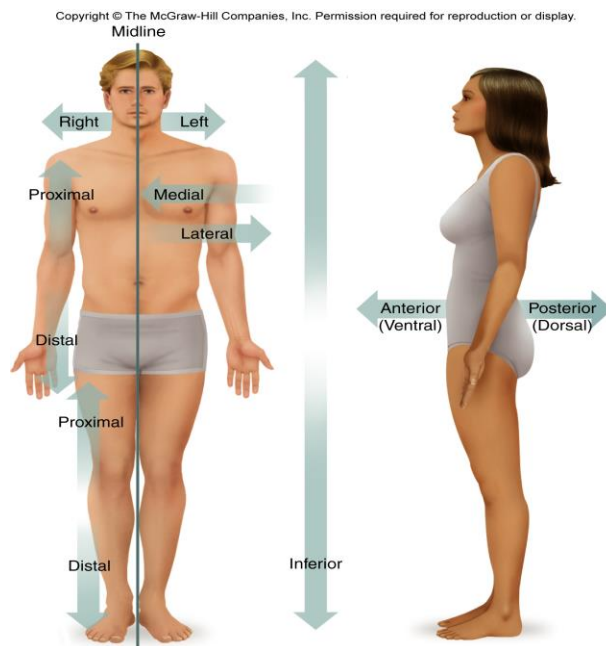
## Activity: Human Body Organization

**Introduction:** This activity will help you to learn the vocabulary describing the human body. This vocabulary consists of directional terms, body sections and planes and body cavities. All the terms are used relative to the anatomical position which provides us with reference for describing the body. This means the person is standing and facing the observer. The arms are at the sides of the body with the palms facing forward.

**Objective:** To learn and understand the terminology used to describe the organization of the human body.

**Material:** gummy bears, razor or knife,

**Procedure:**



**PART I: Directional terms.** There are six pairs most commonly used, each term in a pair is the opposite.

Superior-Inferior  
Anterior-Posterior

Superficial-Deep  
Proximal-Distal

Medial-Lateral  
Right-Left

(Ventral-Dorsal)

Also, the following terms are used to define the location of specific parts of the body in relation to each other.

Bilateral-Ipsilateral-Contralateral

1. Write a statement for each of the six pairs of directional terms. The statements should show the relationship of each pair.

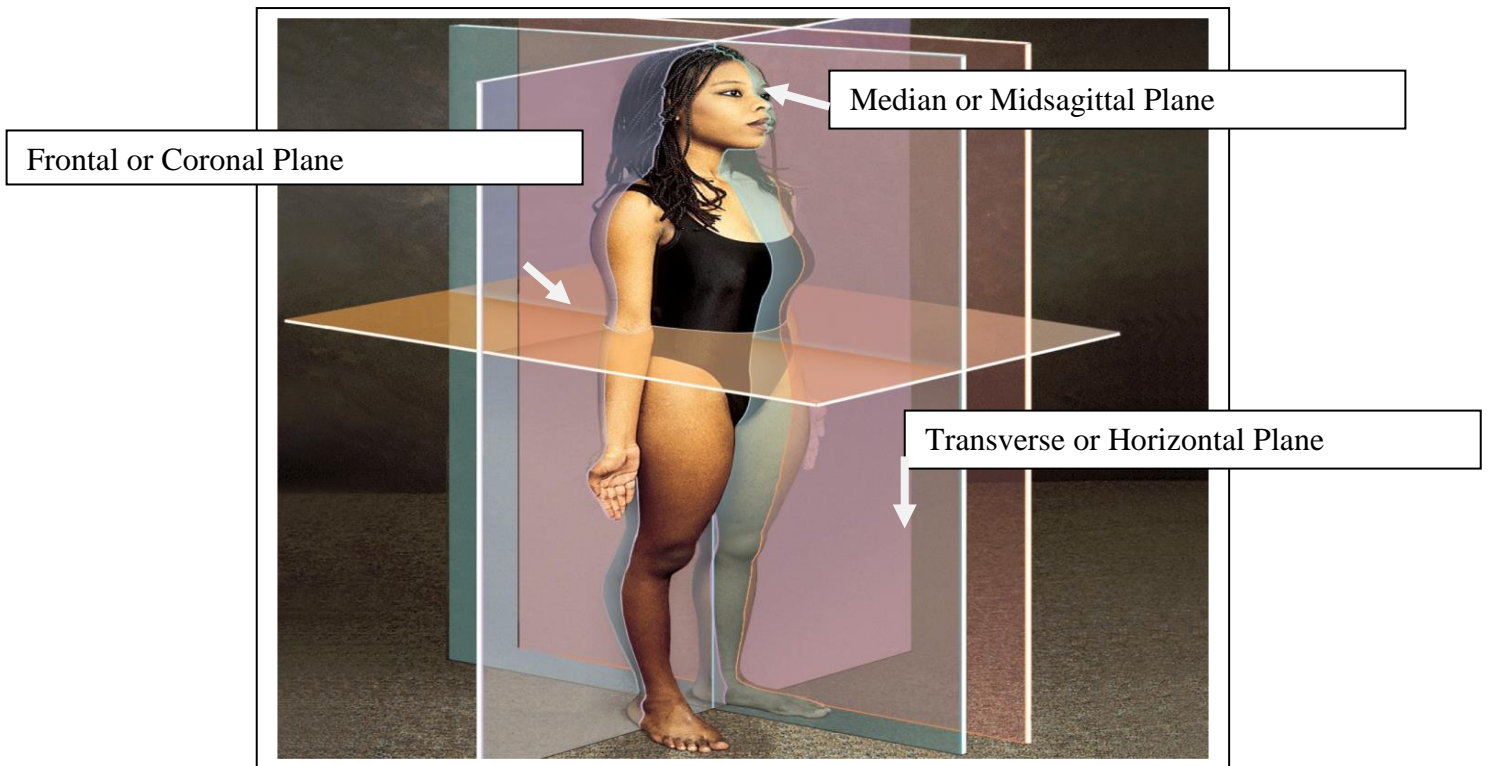
**Example:** *"The wrist is **distal** to the elbow, but the shoulder is **proximal** to the elbow."*

**PART II: Body sections and planes.** The word anatomy is derived from the Greek prefix “meaning to cut up”. The sections are planes produced in the body to reveal its internal anatomy. There are three main sections:

**Median/Midsagittal**

**Frontal or Coronal**

**Transverse or Horizontal**



1. Take one gummy bear and a blade. Cut through the median/midsagittal plane of the bear. Draw a picture of the two parts of the gummy bear after it has been cut and label them **Diagram A-Median/Midsagittal**.

2. Take a second gummy bear. Now make a cut through the frontal or coronal plane. Draw a diagram including the two parts of the gummy bear and label them **Diagram B-Frontal/Coronal**.
3. Take a third gummy bear and cut a transverse or horizontal plane. Label these **Diagram C-Transverse/Horizontal**.
4. Give a description of the cuts you made for each of the planes: median/midsagittal, frontal/coronal and transverse/horizontal under each diagram.

**PART III: Body Cavities.** There are two principle body regions and these are broken up into smaller cavities.

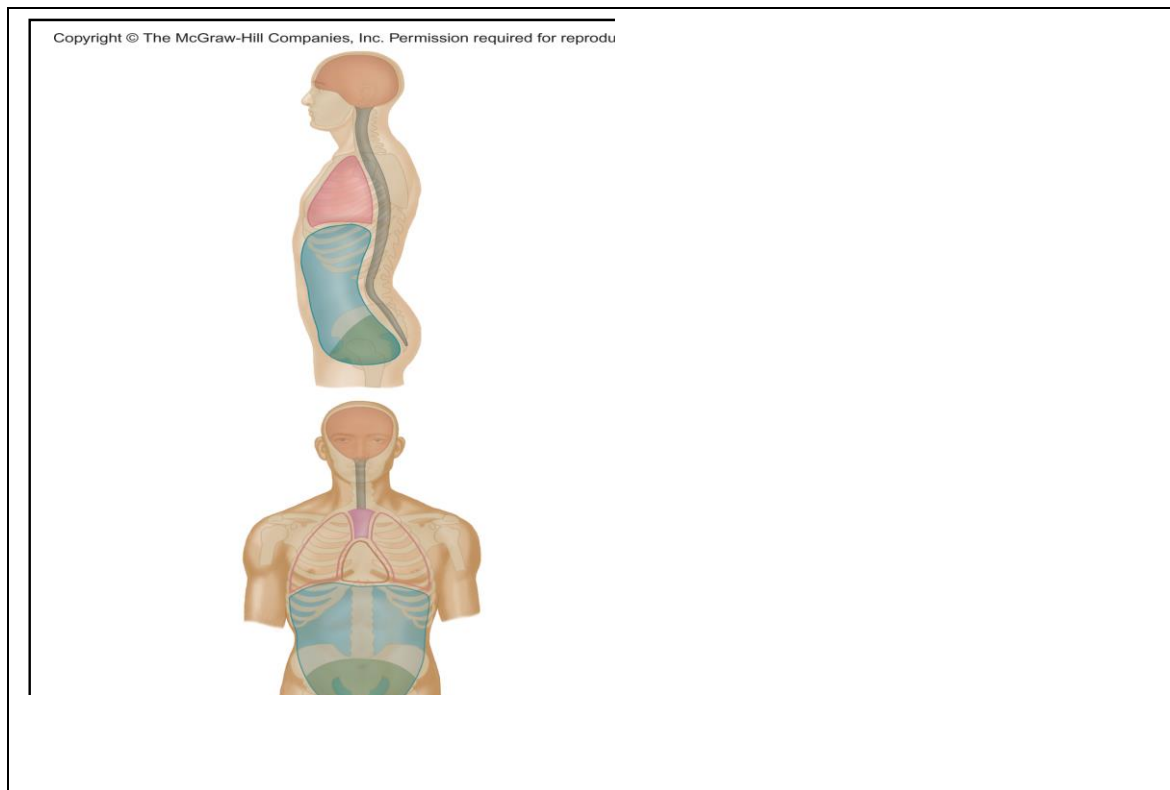
**1.) Axial portion**

- **Cranial cavity**
- **Vertebral canal**
- **Thoracic cavity**
  - **Right and left pleural cavities**
  - **Pericardial cavity**
- **Abdominopelvic cavity**
  - **Abdominal cavity**
  - **Pelvic cavity**

**2.) Appendicular portion**

- **Limbs**

1. Label the diagrams below each using the terms above. You should also include the **diaphragm** and the **mediastinum**.



2. Identify which principle body cavity each structure below would be found in

**Example: trachea= thoracic cavity**

Brain \_\_\_\_\_  
Stomach \_\_\_\_\_  
Lungs \_\_\_\_\_  
Liver \_\_\_\_\_  
Bladder \_\_\_\_\_  
spinal cord \_\_\_\_\_  
Heart \_\_\_\_\_  
Ovary \_\_\_\_\_  
Uterus \_\_\_\_\_  
Esophagus \_\_\_\_\_  
Small intestines \_\_\_\_\_  
Pancreas \_\_\_\_\_

#### **PART IV: Practice**

1. Fill in the appropriate word choice.

##### **(superior or inferior)**

- a. Abdomen \_\_\_\_\_ vs. pectoral region \_\_\_\_\_
- b. Oral region \_\_\_\_\_ vs. nose \_\_\_\_\_
- c. Cervical region \_\_\_\_\_ vs. tail bone \_\_\_\_\_

##### **(anterior/ventral or posterior/dorsal)**

- d. Nose \_\_\_\_\_ vs. ear \_\_\_\_\_
- e. Knuckles \_\_\_\_\_ vs. palm \_\_\_\_\_
- f. Heel \_\_\_\_\_ vs. toes \_\_\_\_\_

##### **(medial or lateral)**

- g. Radius bone \_\_\_\_\_ vs. ulna bone \_\_\_\_\_
- h. Middle toe \_\_\_\_\_ vs. big toe \_\_\_\_\_
- i. Orbital region \_\_\_\_\_ vs. ear \_\_\_\_\_

##### **(proximal or distal)**

- j. Fingers \_\_\_\_\_ vs. carpal region \_\_\_\_\_
- k. Upper arm \_\_\_\_\_ vs. clavicle \_\_\_\_\_
- l. Lower leg \_\_\_\_\_ vs. thigh \_\_\_\_\_