

## INTRODUCTION TO ANATOMY AND PHYSIOLOGY WORKSHEETS

### Anatomy

- 1 Define anatomy. \_\_\_\_\_  
\_\_\_\_\_
- 2 Define cellular anatomy. \_\_\_\_\_  
\_\_\_\_\_
- 3 Define cytology. \_\_\_\_\_  
\_\_\_\_\_
- 4 Define developmental anatomy (embryology). \_\_\_\_\_  
\_\_\_\_\_
- 5 Define gross anatomy. \_\_\_\_\_  
\_\_\_\_\_
- 6 Define histological anatomy. \_\_\_\_\_  
\_\_\_\_\_
- 7 Define histology. \_\_\_\_\_  
\_\_\_\_\_
- 8 Define microscopic anatomy. \_\_\_\_\_  
\_\_\_\_\_
- 9 Define regional anatomy. \_\_\_\_\_  
\_\_\_\_\_
- 10 Define systemic anatomy. \_\_\_\_\_  
\_\_\_\_\_
- 11 Define surface anatomy. \_\_\_\_\_  
\_\_\_\_\_

### Physiology

- 12 Define physiology. \_\_\_\_\_  
\_\_\_\_\_
- 13 Define cell physiology. \_\_\_\_\_  
\_\_\_\_\_
- 14 Define pathology. \_\_\_\_\_  
\_\_\_\_\_
- 15 Define systemic physiology. \_\_\_\_\_  
\_\_\_\_\_
- 16 Define special (organ) physiology. \_\_\_\_\_  
\_\_\_\_\_

### Complementarity

- 17 What does complementarity of anatomy and physiology refer to? \_\_\_\_\_  
\_\_\_\_\_

### Organizational Levels

- 18 List in sequence (lowest first) the six hierarchical levels of anatomy and physiology.  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_  
(3) \_\_\_\_\_  
(4) \_\_\_\_\_  
(5) \_\_\_\_\_  
(6) \_\_\_\_\_
- 19 How does the chemical level (atoms, molecules, and their interactions) relate to cells? \_\_\_\_\_  
\_\_\_\_\_
- 20 Cells are built on the \_\_\_\_\_ level and are organized into the \_\_\_\_\_ level.

- 21 What are the three components of the cell theory?  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_  
(3) \_\_\_\_\_
- 22 Tissues are built on the \_\_\_\_\_ level and are organized into the \_\_\_\_\_ level.
- 23 What are the four fundamental groups of tissues?  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_  
(3) \_\_\_\_\_  
(4) \_\_\_\_\_
- 24 Organs are built on the \_\_\_\_\_ level and are organized into the \_\_\_\_\_ level.
- 25 Organ systems are built on the \_\_\_\_\_ level and are organized into the \_\_\_\_\_ level.
- 26 Match the following systems with their components:

**Cardiovascular system**

**Digestive system**

**Endocrine system**

**Female reproductive system**

**Integumentary system**

**Lymphatic system**

**Male reproductive system**

**Muscular system**

**Nervous system**

**Respiratory system**

**Skeletal system**

**Urinary system**

- \_\_\_\_\_ Brain, spinal cord, nerves, and receptors
- \_\_\_\_\_ Heart, blood vessels, and blood
- \_\_\_\_\_ Kidneys, ureters, urinary bladder, and urethra
- \_\_\_\_\_ Lymph nodes, lymphatic vessels and their fluid called lymph, tonsils, spleen, and thymus
- \_\_\_\_\_ Mouth, esophagus, stomach, small intestine, large intestine, anus, and accessory
- \_\_\_\_\_ Nasal cavity, voice box (larynx), windpipe (trachea), and lungs
- \_\_\_\_\_ Organs such as salivary gland, pancreas, liver and gallbladder
- \_\_\_\_\_ Organs which produce hormones (chemical messengers) which include pituitary, testes, ovaries, thymus, thyroid
- \_\_\_\_\_ Ovaries, fallopian tubes, uterus, and vagina
- \_\_\_\_\_ Skeletal muscles
- \_\_\_\_\_ Skeleton
- \_\_\_\_\_ Skin, hair, nails, sweat glands and oil glands
- \_\_\_\_\_ Testes, ductus (vas) deferens, prostate, seminal vesicles, and penis

27 Match the following systems with their functions:

- Cardiovascular system
- Digestive system
- Endocrine system
- Female reproductive system
- Integumentary system
- Lymphatic system
- Male reproductive system
- Muscular system
- Nervous system
- Respiratory system
- Skeletal system
- Urinary system

- \_\_\_\_\_ Delivery of air to lungs for oxygen and carbon dioxide exchange between air and blood
- \_\_\_\_\_ Immediate control of systems, personality, emotions, etc.
- \_\_\_\_\_ Includes the production, storage, and elimination of urine, which involves regulation of water, electrolytes, and blood pH.
- \_\_\_\_\_ Includes the skeleton which supports, protects, provides for storage of calcium, and serves as a site of blood cell production
- \_\_\_\_\_ Long-term regulation of systems by production and release of hormones
- \_\_\_\_\_ Movement of the body and involved in body temperature regulation
- \_\_\_\_\_ Processing and absorption of nutrients
- \_\_\_\_\_ Production of egg, implantation and development
- \_\_\_\_\_ Production of lymphocytes for immunity, and collects, filters, and transports fluid (lymph)
- \_\_\_\_\_ Production of sperm
- \_\_\_\_\_ Protection (by skin, hair, etc.), site of sensory receptors, involved in body temperature control, etc.
- \_\_\_\_\_ Transport of blood; including cells, nutrients, wastes, gases, hormones, etc.

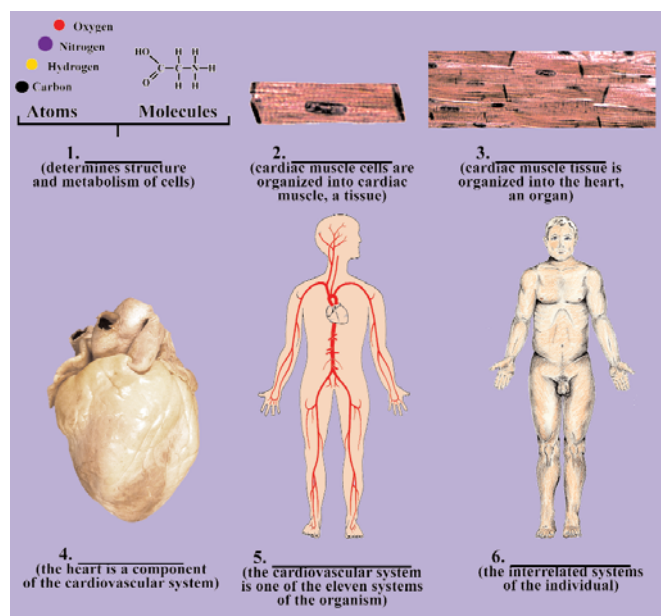


Figure 1.1

28 In reference to **Figure 1.1**, identify levels #1 - #6.

- 1 \_\_\_\_\_ 4 \_\_\_\_\_
- 2 \_\_\_\_\_ 5 \_\_\_\_\_
- 3 \_\_\_\_\_ 6 \_\_\_\_\_

**Characteristics of Human Life**

- 29 Define metabolism. \_\_\_\_\_
- 30 What are the two major divisions of metabolism?  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_
- 31 Define catabolism. \_\_\_\_\_
- 32 Define anabolism. \_\_\_\_\_
- 33 What are three ways growth may occur?  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_  
(3) \_\_\_\_\_
- 34 Define differentiation. \_\_\_\_\_
- 35 Define responsiveness. \_\_\_\_\_
- 36 Motion begins with controlled molecular actions within the \_\_\_\_\_.
- 37 List five areas where movements are seen.  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_  
(3) \_\_\_\_\_  
(4) \_\_\_\_\_  
(5) \_\_\_\_\_
- 38 What are two processes of cell reproduction?  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_
- 39 What does meiosis give rise to? \_\_\_\_\_
- 40 What are three things cell division provides? \_\_\_\_\_