**Human Body Systems Interactions – Study Guide KEY**

 ***Levels of Organization Fill-in-the-Blank***

1. Cells work together to form \_\_tissues\_\_\_. \_\_Tissues\_\_\_\_\_ work together to form organs. Organs work together to form \_organ\_ \_systems\_\_\_. \_\_Organ\_\_\_\_ \_systems\_\_\_\_\_ make up organisms.
2. Word = \_\_cell\_\_\_\_\_\_\_\_

Sentence = \_\_tissue\_\_\_\_\_\_\_\_

**Word Bank for Questions #1 & #2:**

*cell organ tissue organism organ system*

Paragraph = \_\_organ\_\_\_\_\_\_\_\_

Chapter = \_\_organ\_\_\_ \_\_system\_\_\_

Book = \_organism\_\_\_\_

***Human Body System Matching***

|  |  |
| --- | --- |
| 1. \_\_G\_\_Nervous System
 | 1. The major organs of this system are the lungs. This system allows the body to breathe.
 |
| 1. \_\_E\_\_Integumentary System
 | 1. The major organs of this systems are glands that produce chemicals to help control body functions such as growth and development.
 |
| 1. \_\_K\_\_Digestive System
 | 1. White blood cells in this system fight pathogens (germs).
 |
| 1. \_\_J\_\_Skeletal System
 | 1. The major organs of this system include the tonsils, the spleen, and other lymph nodes that help remove dead pathogens (germs) and other wastes from the body by contracting of skeletal muscles.
 |
| 1. \_\_L\_\_Excretory System
 | 1. The major organ of this system is the skin. This system covers and protects the body.
 |
| 1. \_\_D\_\_Lymphatic System
 | 1. The 3 types of tissue in this system include smooth, striated, and cardiac. This system provide shape, support, and movement for the body.
 |
| 1. \_\_A\_\_Respiratory System
 | 1. The major organs of this system include the brain and spinal cord. This system controls the body.
 |
| 1. \_\_B\_\_Endocrine System
 | 1. The major organs of this system include the kidneys and the bladder. The kidneys filter the blood and produce urine that is stored in the bladder until the body is ready to release the waste.
 |
| 1. \_\_F\_\_Muscular System
 | 1. The major organs of this system are the heart and the blood vessels. This system provides transportation for nutrients, oxygen, and other substances throughout the body.
 |
| 1. \_\_I\_\_Cardiovascular System
 | 1. The human body has 206 bones that help protect the internal organs and a variety of joints that allow movement. This system also produces red blood cells in the marrow of the bones.
 |
| 1. \_\_H\_\_Urinary System
 | 1. This system has many organs including the stomach and the intestines. This system is responsible for breaking down food for the body.
 |
| 1. \_\_C\_\_Immune System
 | 1. This system consists of 4 other systems that help the body removes wastes. These systems include the integumentary (sweating), respiratory (exhaling carbon dioxide), urinary (releasing urine), and digestive systems (releasing feces).
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***Systems Interactions***

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| --- | --- | --- |
| **Action** | **Which body systems are in use****during this action?** | **How do you know these systems****are part of this action?** |
| Brushing your teeth | skeletal, muscular, nervous, respiration, cardiovascular | respiration and cardiovascular give you energy to move your muscles; the muscles are moving the bones to lift and maneuver the toothbrush to clean the teeth which are also bones; the nervous system is directing the action using information from the senses (eyes, touch, taste) |
| Scoring a touchdown |  | \*answer should include at least nervous, senses, muscular, and skeletal |
| Texting |  | \*answer should include at least nervous, senses, muscular, and skeletal |
| Eating breakfast |  | \*answer should include at least nervous, senses, muscular, skeletal, and digestive |

How does the skeletal system interact with the…

1. …muscular system? \_\_muscles are attached to bones by tendons; when muscles contract, they pull on the bones causing movement\_\_
2. …respiratory system? \_the rib cage protects the lung\_\_
3. …cardiovascular system? \_\_red blood cells are produced in the marrow bones; the cardiovascular system uses red blood cells to transport oxygen to the body\_\_\_
4. …nervous system? \_\_when muscles receive a signal from the nervous systems, they pull on the bones causing movement\_\_
5. …digestive system? \_\_the teeth grind the food to help break it down; the bones store minerals such as calcium and phosphorous\_\_
6. …immune system? \_\_movement of the skeletal muscles cause the lymph fluid to be transported throughout the body helping the body get rid of wastes from fighting pathogens (germs)\_\_\_\_\_
7. What 2 systems are pictured in the diagram and

how do they work together?

\_\_The two systems are the cardiovascular (circulatory) system and the respiratory systems. These two systems work together to supply the body with oxygen and get rid of carbon dioxide. The lungs filter oxygen from the environment (inhale) and pass it the blood cell in the cardiovascular system. The heart pumps the blood through the blood vessel to the body. Carbon dioxide passes into the blood from body cells after cellular respiration. The carbon dioxide is then passed from the blood to lungs for release into the environment (exhale).\_\_\_