

**Lesson Outline****LESSON 2*****Structure, Movement, and Control*****A. Structure and Movement**

1. The \_\_\_\_\_ includes bones, ligaments, tendons, and cartilage.
2. The skeletal system protects internal \_\_\_\_\_, provides support, aids body movement, and stores \_\_\_\_\_.
  - a. The element \_\_\_\_\_, which is required for healthy muscular and nervous systems, is stored in bones.
  - b. The \_\_\_\_\_ gives your body structure and support.
  - c. Your brain is protected by the \_\_\_\_\_, which is one way bones protect organs.
  - d. The skeleton works with the \_\_\_\_\_ to help the body move.
3. Bones contain two types of \_\_\_\_\_.
  - a. The hard, outer part of the bone is called \_\_\_\_\_.
  - b. The bone tissue that contains many holes is called \_\_\_\_\_.
  - c. Some bones also contain bone \_\_\_\_\_, which is a part of the lymphatic system and makes white blood cells.
4. Almost half of your body mass is muscle cells, which make up the \_\_\_\_\_.
  - a. The type of muscle tissue that works with the skeletal system to help you move is \_\_\_\_\_ muscle.
  - b. \_\_\_\_\_ connect skeletal muscles to bone.
  - c. Muscle in the heart is \_\_\_\_\_ muscle.
  - d. \_\_\_\_\_ muscle tissue is in organs.

**B. Control and Coordination**

1. The \_\_\_\_\_ detects, processes, and responds to information in the body.
  - a. The basic unit of the nervous system is the \_\_\_\_\_ cell, also called a(n) \_\_\_\_\_.
  - b. The central nervous system contains the \_\_\_\_\_ and the \_\_\_\_\_ cord.

## Lesson Outline continued

- c. Nerves outside the brain and spinal cord make up the \_\_\_\_\_.
  - d. Information entering the body through \_\_\_\_\_ is sent to the central nervous system.
  - e. After the central nervous system processes the information, it sends signals to the \_\_\_\_\_.
  - f. Functions, such as breathing and digestion, are automatic, or \_\_\_\_\_, and do not require you to think about them to make them happen.
  - g. Many functions of the nervous system require you to think about them to make them happen and are called \_\_\_\_\_.
  - h. Automatic movements in response to a signal are called \_\_\_\_\_. Signals for these movements are processed by the \_\_\_\_\_, not the brain.
  - i. Humans detect their external environment by using five senses—vision, touch, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
2. The \_\_\_\_\_ uses hormones to communicate with other organ systems.
- a. \_\_\_\_\_ are chemical signals sent from the organs of the endocrine system.
  - b. Hormones take longer to send a signal than \_\_\_\_\_ do, but the effect lasts longer.
  - c. The endocrine system works with other body systems to maintain \_\_\_\_\_.