

Skeletal & Muscular System Study Guide

The purpose of the **SKELTAL SYSTEM** is that it provides support for the body and protects vital organs. A major difference between human bodies and the bodies of animals that do not have skeletal system is that animals without skeletal systems have less protection for their organs. The primary purpose of the rib cage is to protecting vital soft organs like the heart and lungs, the skull to protect the brain, and the spine to protect the spinal cord.

Your bones are made up of living cells. Bones are not dry! They are flexible, light, and strong. There are 206 bones in an adult skeleton. The bones in our body come in many different shapes and sizes. This is because each bone is designed to do a unique job in your body. Places in the skeletal system where points come together are called joints.

The **MUSCULAR SYSTEM** provides movement for the body. Many bones have more than one muscle attached to them because each muscle pulls the bone in a different direction.

There are involuntary muscles (muscles that you *cannot* control) and voluntary muscles (muscles that you *can* control). Involuntary muscles include the heart, muscles involved in blinking, digesting food, and breathing. Voluntary muscles include leg and arm muscles.

There are also smooth muscles (esophagus and blood vessels), cardiac muscle (only the heart) and skeletal muscles (biceps and quadriceps). The skeletal muscles found in your leg function differently than the heart muscle by being voluntary and moving when you want them to move. To help you understand some of the characteristics of a skeletal muscle, gently pull and release the ends of rubber band. To help you understand some of the characteristics of the muscle in your heart, gently squeeze and release a balloon partially filled with water.

MAJOR BONES IN THE BODY:

