



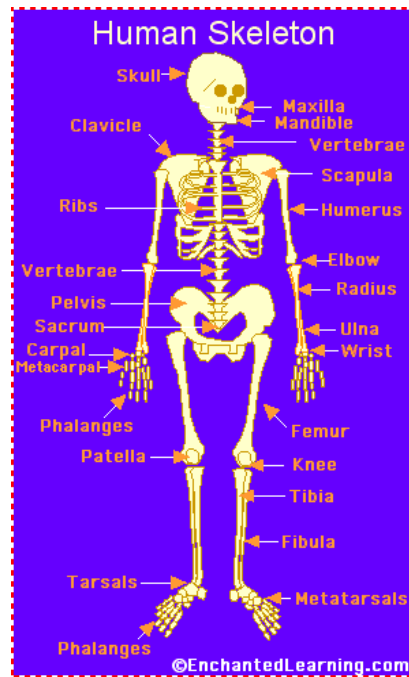
Notes: Introduction to Bones

The word “skeleton” is derived from a Greek word that means “dried-up body”. However, bones are actually composed of a complex living system. Humans rely on a sturdy internal frame that is centered on a prominent spine. The human skeletal system consists of bones, cartilage, ligaments and tendons and accounts for about 20 percent of the body weight.

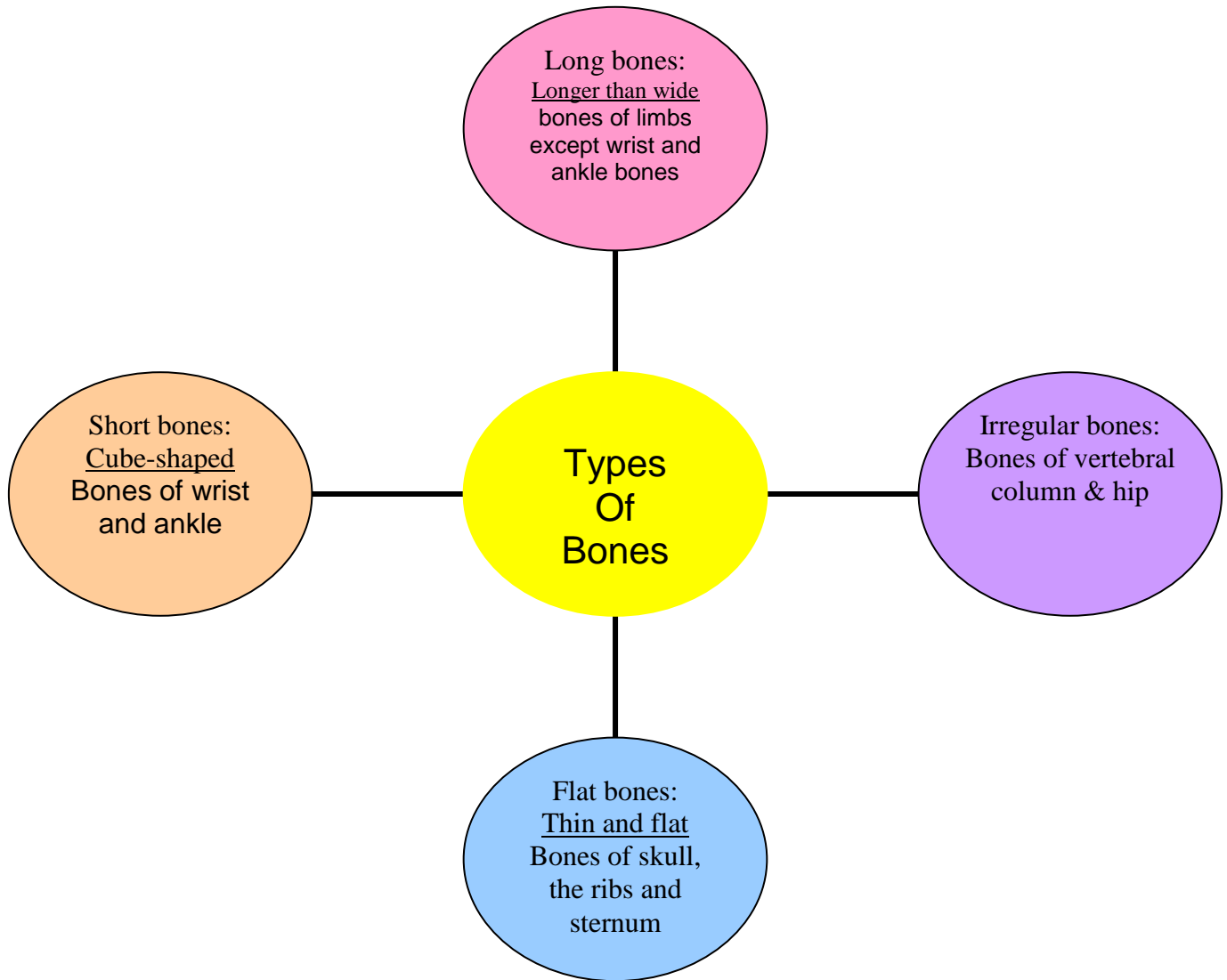
The living bones in our bodies use oxygen and give off waste products in metabolism. They contain active tissues that consume nutrients, require a blood supply and change shape in response to changes in mechanical stress.

Functions of Bones

- ✚ Support-provides internal framework that support tissues
- ✚ Protection-protects soft body organs
- ✚ Movement-Skeletal muscles that are attached to bones use the bones as levers to move the body.
- ✚ Storage-Bone is a storehouse for minerals such as calcium
- ✚ Blood Cell Formation-site of blood cell formation



Classification of Bones (by shape)



The human skeleton consists of 206 bones. The longest bone in our bodies is the **femur** (thigh bone). The smallest bones are the malleus, incus and stapes bones in the inner ear. Each hand has 26 bones in it. Your nose and ears are not made of bone; they are made of cartilage, a flexible substance that is not as hard as bone.

Bones are connected to other bones at joints. There are many different types of joints, including: **fixed joints** (such as in the skull, which consists of many bones), **hinged joints** (such as in the fingers and toes), and **ball-and-socket joints** (such as the shoulders and hips).