### The Function Of The Skeleton

An average human skeleton is made of 206 bones each playing a part in the skeletal system. This system then provides the very base framework for the entire body. It allows tissues and organs to attach to it which then gives the overall shape of the human body.

The skeletal system does 5 main jobs which support the entire body; supports it, protects its organs, provides attachments for tissues and skeletal muscles, a source of blood cell production and stores vital minerals for the health of the body.

# **Support**

The skeleton maintains our upright positions and makes sure our organs stay in the correct places. The spine makes sure we stand up and keep our posture and the spaces in our bones provide space for our organs to sit in. Our skeletons, or any skeleton, provides us with our particular shape. If our organs, muscles and tissues didn't have bones to attach to or be protected by then we would all just be fluid sacs.

#### **Protection**

Within our bodies we have organs. These organs are vital for the health and well being of us and without them we wouldn't be able to do the things we do on a daily basis. This is why they need protecting. The skeletal system provides protection to our organs. For example, ribs/costal bones give our heart and lungs protection and also part of the liver, our cranium looks after our brain, our vertebrae offer protection to the spinal cord and our pelvis makes sure the reproductive system is safe. All of these examples act like protective "boxes" almost; they keep the organs well protected and safe and also keep them in one place.

## **Attachment for Tissues and Skeletal Muscles**

All around our bodies our muscle, soft tissue, ligaments and tendons need to attach to something. Our skeleton gives them a surface which they connect with. This is often the reason why our bones aren't just straight; they need their irregular shape and styles to be more "practical". The more boney points in our bones or the places where our bones stick out more just give our muscles an easier, more attachable surface.

#### **Production of Blood Cells**

In some of our bones there will be red bone marrow. This same marrow helps in the production of red blood cells, white blood cells and platelets. These are incredibly important to help fight infections, heal wounds and move oxygen, water and minerals around our bodies. Some examples of these bones are the "pelvis, sternum, vertebrae, costals, cranial bones and clavicle.

# **Storage of Vital Minerals**

Most, if not all, of our bones have been made from minerals which are stored in cartilage. This means they are a perfect storage for calcium, magnesium and phosphorus. These minerals can also be shared around the body if they are needed for other jobs. In the yellow bone marrow our bones store triglycerides which are dietary fats (these are the fats and oils stored in our bones).

2/2