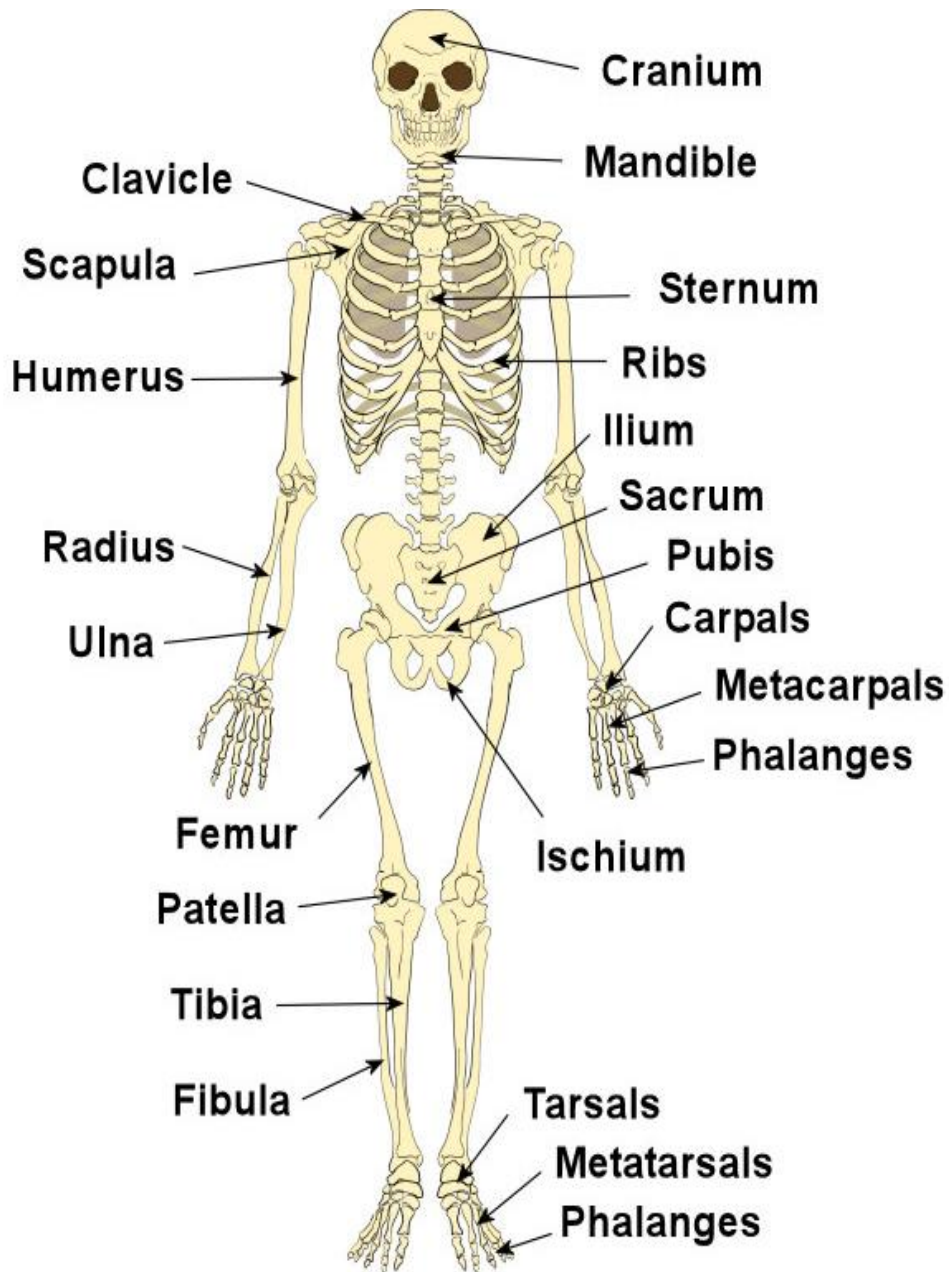


Skeletal System Lapbook



L-SKEL

Designed by
Cyndi Kinney

Skeletal System Lapbook
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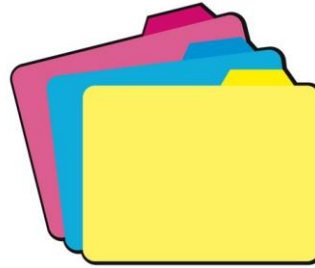
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Special thanks to Carrie Martin-Vegue. She is the author of the Study Guide that is included in this product. The Study Guide is being used with her permission and is now owned by Knowledge Box Central.

How do I get started?

First, you will want to gather your supplies.



*** Assembly:

***Folders:** We use colored file folders, which can be found at Walmart, Sam's, Office Depot, Costco, etc. You will need between 1 and 4 file folders, depending on which product you have purchased. You may use manila folders if you prefer, but we have found that children respond better with the brightly colored folders. Don't worry about the tabs...they aren't important. Within this product, you will be given easy, step-by-step instructions for how to fold and assemble these folders. *If you prefer, you can purchase the assembled lapbook bases from our website.*

***Glue:** For the folder assembly, we use hot glue. For booklet assembly, we use glue sticks and sometimes hot glue, depending on the specific booklet. We have found that bottle glue stays wet for too long, so it's not a great choice for lapbooking. For gluing the folders together, we suggest using hot glue, but **ONLY** with adult supervision. These things get **SUPER** hot, and can cause **SEVERE** burns within seconds.



***Other Supplies:** Of course, you will need scissors. Many booklets require additional supplies. Some of these include metal brad fasteners, paper clips, ribbon, yarn, staples, hole puncher, etc.



You may want to add decorations of your own, including stickers, buttons, coloring pages, cut-out clipart, etc. Sometimes, we even use scrapbooking supplies. The most important thing is to use your imagination! Make it your own!!



Ok. I've gathered the supplies. Now how do I use this product?

Inside, you will find several sections. They are as follows:

1. **Layout and Pictures:** This section gives instructions and diagrams that will tell the student exactly how to assemble the lapbook base and where to glue each booklet into the base. Depending on the student's age, he or she may need assistance with this process, especially if you choose to allow the student to use hot glue.

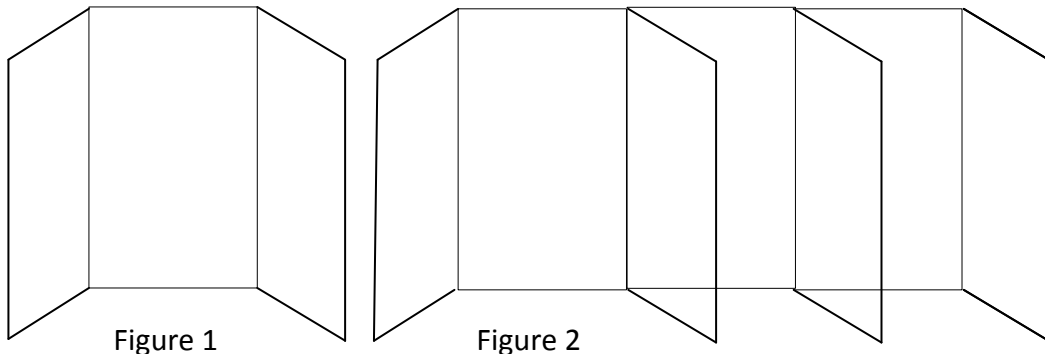
2. **Student Instruction Guide:** This section is written directly to the student, in language that he or she can understand. However, depending on the age of the child, there may be some parent/teacher assistance needed. This section will also tell the student exactly what should be written inside each booklet as he or she comes to it during the study, as well as telling the student which folder each booklet will be glued into.

3. **Booklet Templates:** This section includes ALL of the templates for the booklets. These have been printed on colors that will help to improve retention of the information presented, according to scientific research on color psychology.

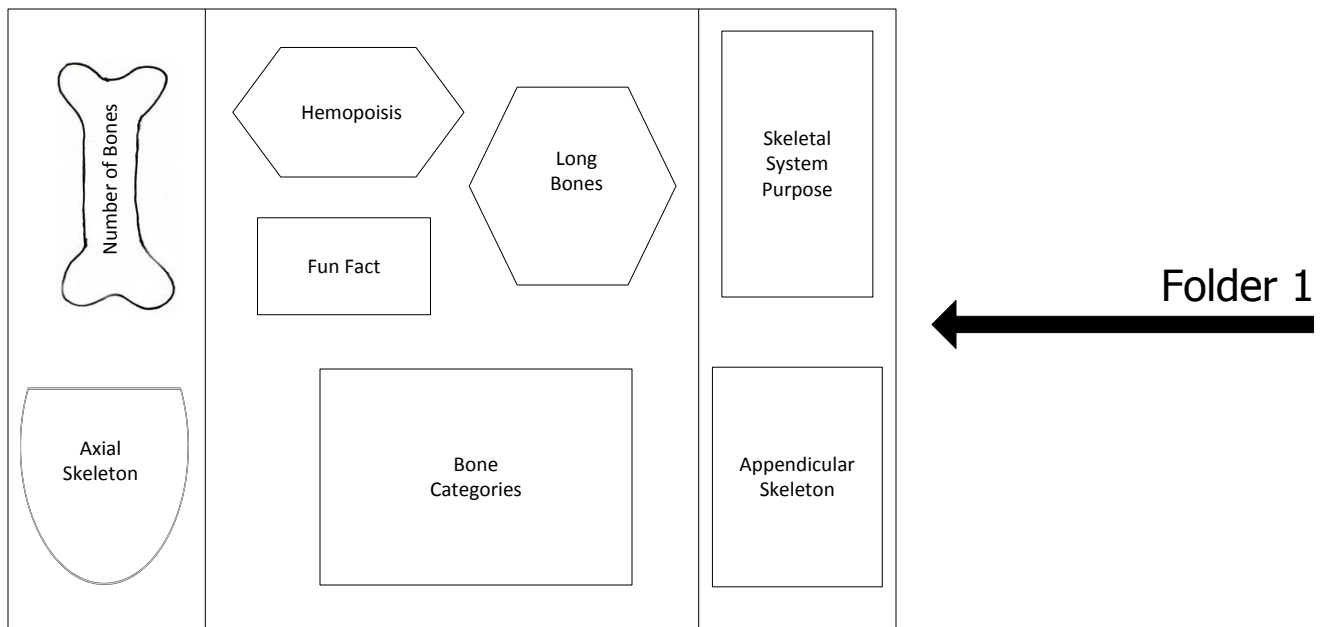
Skeletal System Lapbook

Layout & Pictures

You will need 3 folders of any color. For each folder, you will fold both sides toward the original middle fold and make firm creases on these folds (Figure 1). Then glue the folders together along one flap (Figure 2).



This is the "Layout" for your lapbook. The shapes are not exact on the layout, but you will get the idea of where each booklet should go inside your lapbook.



Folder 2



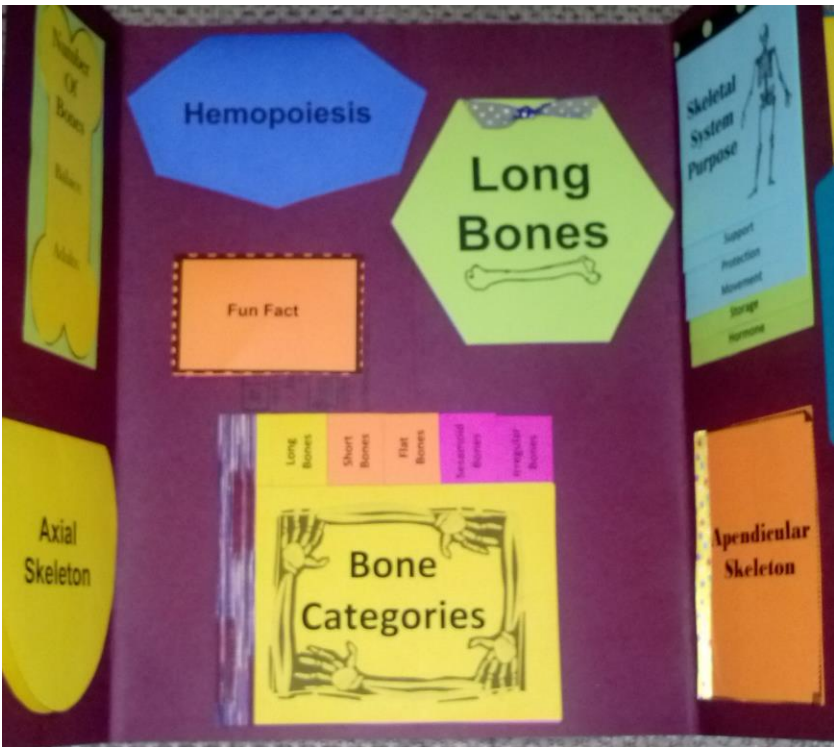
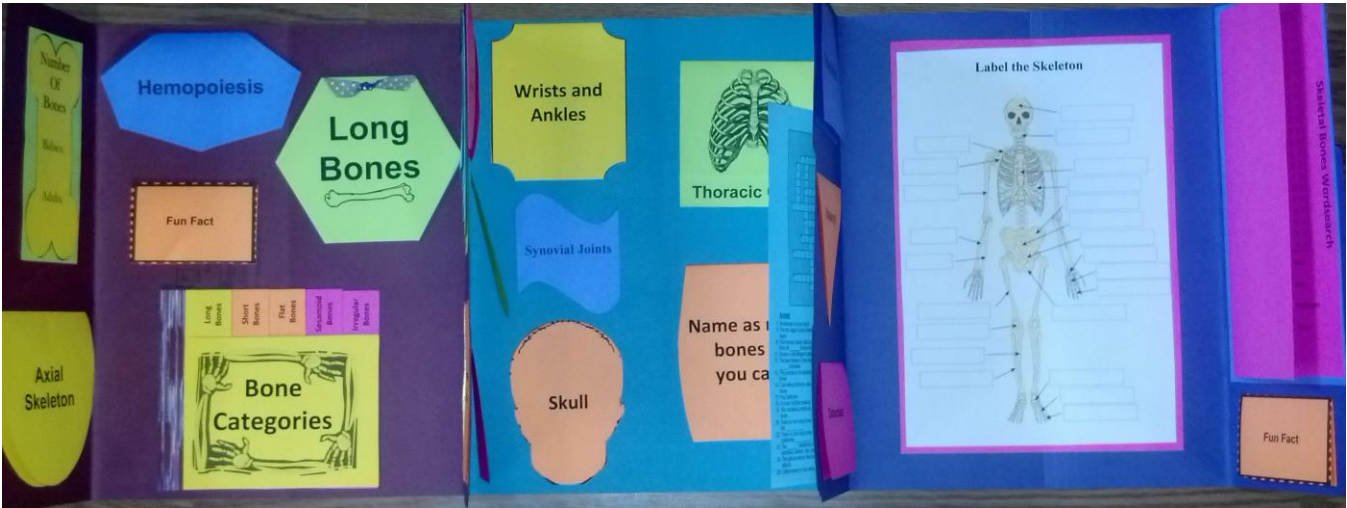
Leg Bones	Wrists and Ankles	Thoracic Cage	Fun Fact
Arm Bones	Synovial Joints	Name as many bones as you can.	Crossword
Vertebral Column	Skull		

Osteoblast	Label the Skeleton	Word Search
Osteocyte		Fun Fact
Osteoclast		

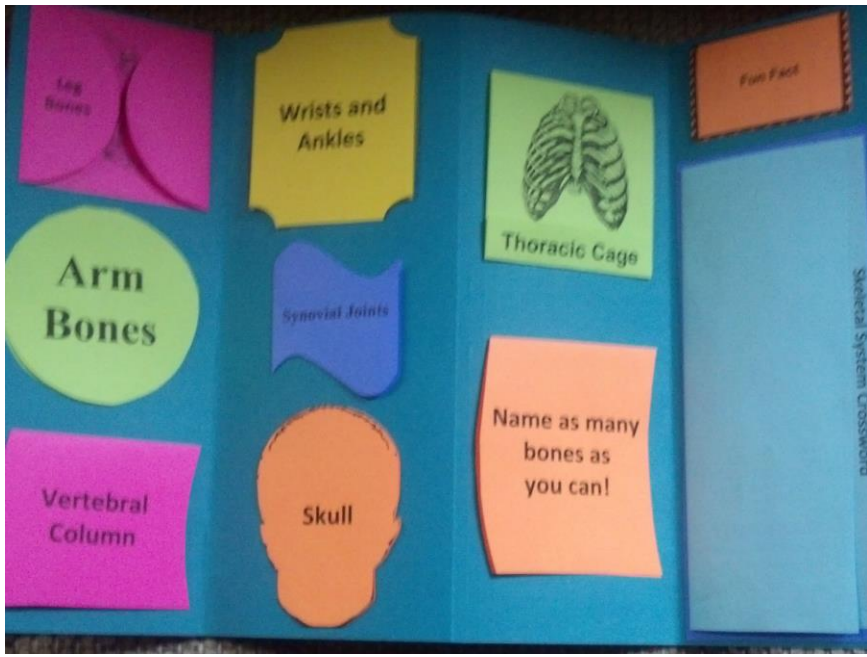
Folder 3



Below is a picture of a completed lapbook!!! This should help in figuring out how to assemble the booklets and then how to put it all together!



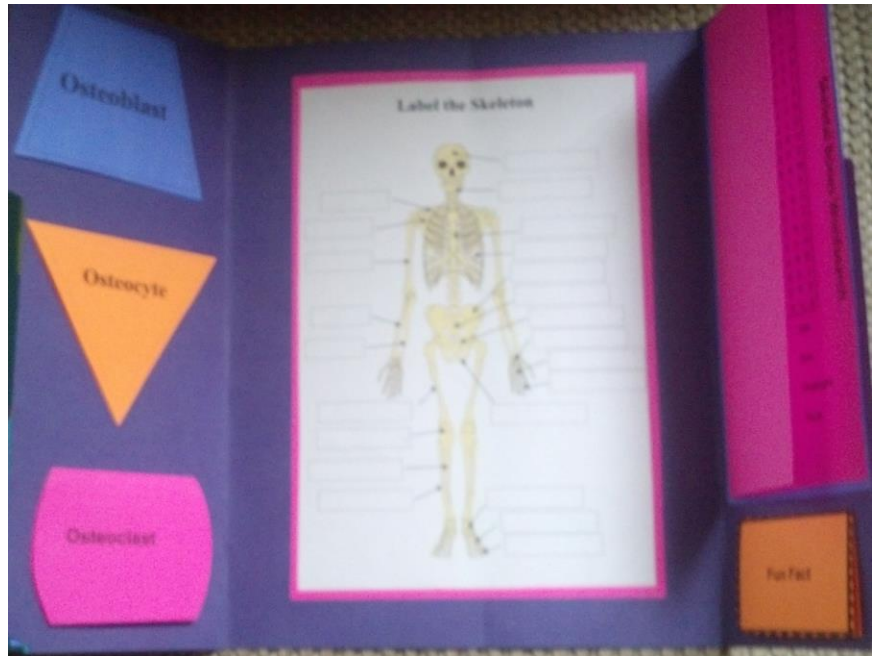
← Folder 1



Folder 2



Folder 3



Skeletal System Lapbook

Student Instruction Guide

Booklet 1: How Many Bones?

Assembly Instructions: Cut out along the outer black line edges of this one-page booklet. Glue to another piece of paper of a different color. Trim around the edges to create a small border.

Completion Instructions: Tell how many bones a baby is born with, and then tell how many bones an adult has.

Booklet 2: Skeletal System Purpose

Assembly Instructions: Cut out along the outer black line edges of each page. Stack so that the title is on the top and the pages get longer toward the back. Secure at the top with staples or metal brad fasteners.

Completion Instructions: Your skeletal system has many purposes. Tell about each one inside this booklet.

Booklet 3: Hemopoiesis

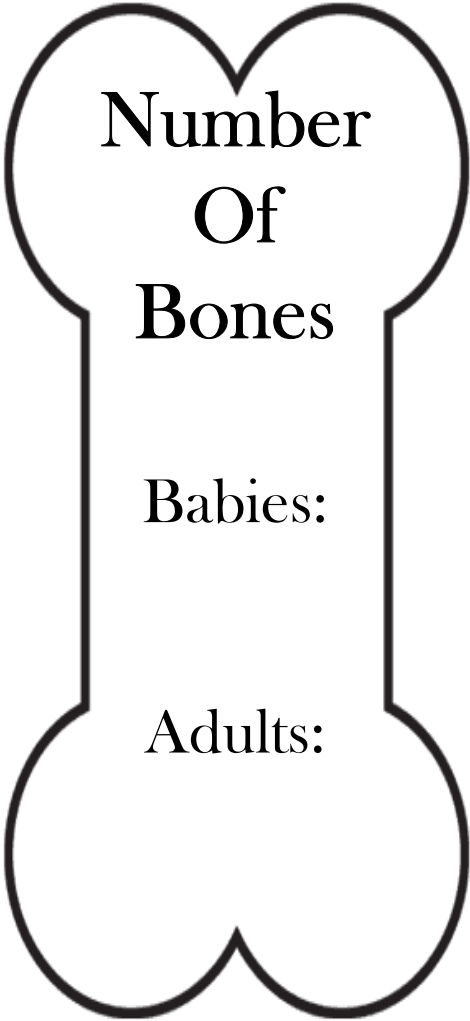
Assembly Instructions: Cut out along the outer black line edges of the booklet. Fold along the center line so that the title is on the front.

Completion Instructions: Inside this booklet, explain hemopoiesis.

Booklet 4: Bone Categories

Assembly Instructions: Cut out along the outer black line edges of each page. Stack so that the title is on top and the tabs on the pages get longer toward the back. Secure along the left side with staples or metal brad fasteners.

Completion Instructions: There are five different types of bones. Tell about each one inside the booklet.



Number
Of
Bones

Babies:

Adults:

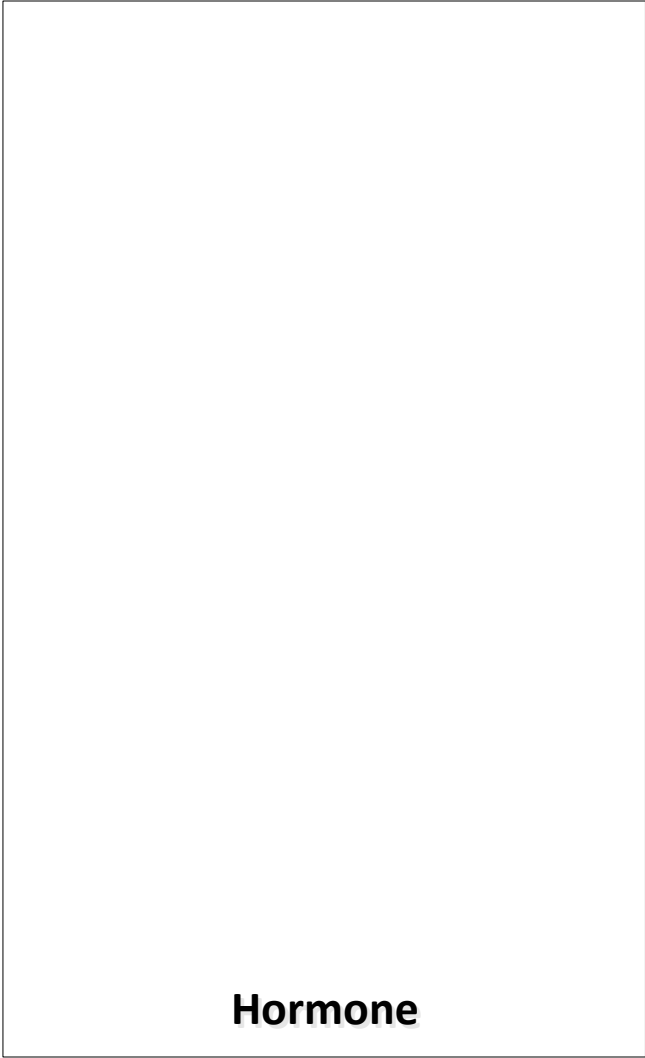
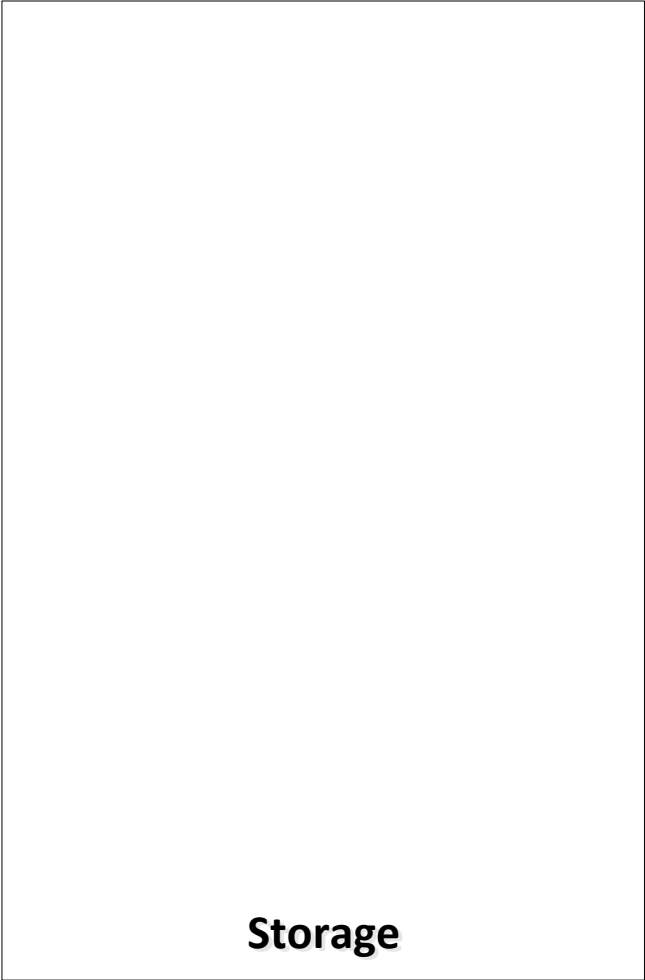
Skeletal System Purpose



Support

Protection

Movement



The Skeletal System

Lapbook

Teacher's/Study Guide

Introduction

Bones are fascinating things. Think about it. What would you look like without your bones? You would be a shapeless blob. Your skull supports your face and gives you your unique look. Your spine helps you to stand straight and tall. Your leg and arm bones allow you to move, walk and run.

Imagine life for a moment with your skeletal system. Pretty creepy, isn't it?

When a baby is born, he has over 270 bones. As he grows and matures some of these bones fuse together so that by the time he is an adult there are only 206 bones in his body.



<https://homes.bio.psu.edu/faculty/strauss/anatomy/skel/skeletal.htm>

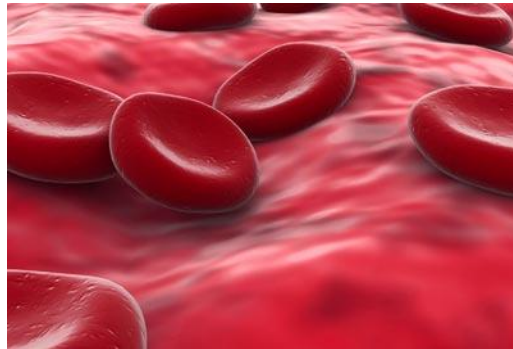
Your skeletal system has many purposes. The first is support. The bones in your body support your body's entire weight. Think about that for a moment. Your bones have to be made strong enough to be able to support the entire weight of your body!

Your bones also provide protection. What protects your brain from being damaged? Your skull. What protects your heart and lungs? Your thoracic cage.

Your skeletal system is also responsible for all of the movement you are able to do. The point at which two bones meet is a joint. And that joint allows you to move your fingers, toes, arms, and legs.

Your bones also store calcium, iron and fat in the form of yellow bone marrow.

And finally your bones play a part in the endocrine system of your body by producing a hormone that helps to regulate your blood sugar and fat deposits throughout your body.



<http://www.fi.edu/learn/heart/blood/red.html>

Hemopoiesis

Hemopoiesis is the production of red blood cells. Your bones are responsible for the production of the red blood cells that carry oxygen to the cells throughout your entire body.

The larger bones in your body are hollow and that hollow space is filled with red bone marrow. The red bone marrow is what actually produce the red blood cells and white blood cells, which are involved in your immune system and help your body to fight off illnesses.

Bone Categories

There are actually five different types of bone.

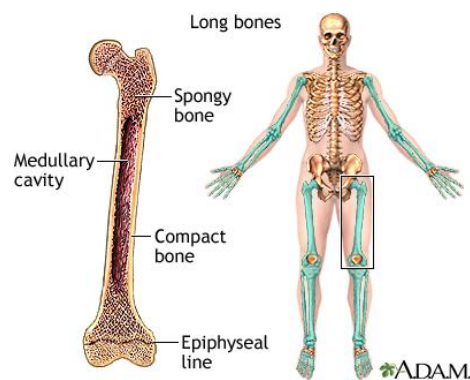
Long bones are ones that are longer than they are wide. They are weight-bearing bones. The growth in these bones is controlled by the endocrine system. The anterior pituitary gland secretes a hormone called the growth hormone that causes the long bones to grow.

Short bones are as long as they are wide. Their main job is to provide support and stability for your body.

Flat bones are thin and curved.

Sesamoid bones are small and round. Sesamoid bones are found with tendons because one of their jobs is to protect its tendon. It works to hold the tendon away from the joint and works to give the tendon as much mobility as possible. (Your kneecap is a good example of a sesamoid bone.)

Irregular bones are ones that don't fit into one of the four above categories.



<http://www.nlm.nih.gov/medlineplus/ency/imagepages/9582.htm>

Long Bones – Epiphysis

The epiphysis of a long bone is found at both ends. It's the rounded portion at either end of the bone. The epiphysis is made from cancellous bone, which is also known as spongy bone. It looks similar to a lattice work with lots of little holes. In those holes is the red bone marrow.

Long Bones – Diaphysis

The diaphysis is the long portion of the bone. It is made up of compact bone, which is extremely dense.

Long Bones – Epiphyseal Plate

The epiphyseal plate is found between the epiphysis and the diaphysis. In a child it is made up of hyaline cartilage.