



Can you make a wheel that will roll?

1. Were you able to make an effective wheel at first? Why or why not?
2. How were the toothpicks helpful?
3. What body system to the toothpicks remind you of?
 - > What do the toothpicks represent?
 - > What does the candy part represent?

The Bones
The Skeletal System

The Skeletal System

Questioning Those Bones Handout

Functions of the Skeletal System

Bones and Cartilage

BrainPop: Skeleton

Science Textbook p A25 and R28-29

Health Textbook p 10

Erase

What is the purpose of the skeletal system?

- protects organs
- give the body shape
- helps the body move

Explain how bones are important in the production of red blood cells.

Marrow is a soft tissue inside the bones that produces blood cells

Explain why it is necessary to have the minerals calcium and phosphorous in your balanced diet.

helps build strong bones and teeth

The Skeletal System

Name two bones that protect the body. Name two bones that support the body

Protection- ribs, cranium (skull)

Support- femur, tibia, fibula, humerus, radius, ulna

Where do bones meet and how are they attached to each other and to muscles?

Bones meet at joints where they attach to each other and to muscles.

Describe hinge, ball-and-socket, and immovable joints.

Hinge-- allow for back and forth movement

Ball and Socket-- allow for circular movement

Immovable Joints-- don't allow any movement (i.e. skull)

The Skeletal System

What is the function of bones?

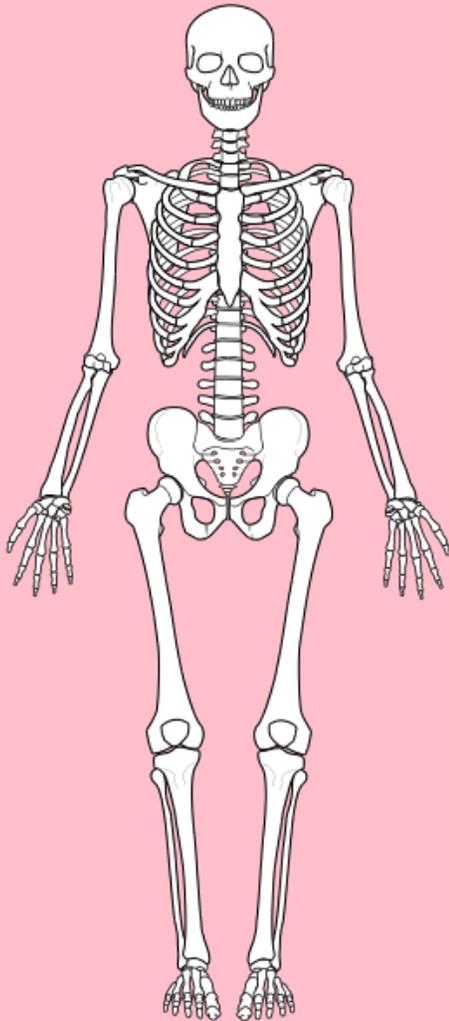
- protect organs
- work with muscles for movement
- make blood cells

Vocabulary

Skeletal System	the body system with bones, their cartilage, and the joints
Cranium	the skull of a vertebrate
Spine	the column of bones called vertebrae that protects the
Vertebrae	any of the bones or cartilage tissue that make the spinal column
Joint	a movable body part where two bones are connected to each other with special tissue
Cartilage	strong, flexible connective tissue in body parts such as joints, outer ear, and larynx
Bone Marrow	The soft, fatty, vein filled tissue that is on the inside of most bones; when most red and white blood cells are made

The Skeletal System

Human Body Outline

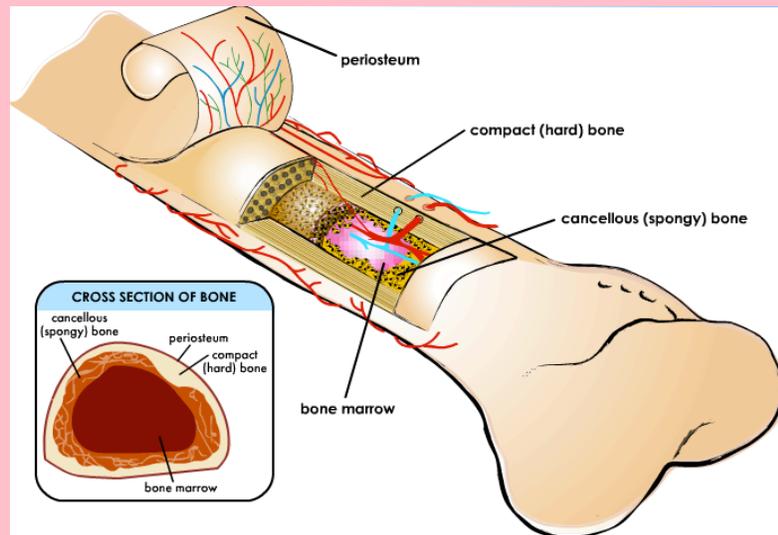


- Use your pencil to add the labels for the following bones on your outline.

- > cranium
- > spine
- > joints
- > cartilage

The Skeletal System

What happens when bones become injured.



The Skeletal System

What happens when bones do not have an adequate supply of calcium?

Hypothesis: _____

Procedure:

1. Examine a bone and record observations in your science notebooks.
 - Describe the texture.
 - Is the bone hard or soft?
 - Will it bend?
2. Fill one jar half full of water and one jar half full of vinegar.
3. Add one bone to each jar and tightly close the lids.

Observations:

4. After 5 days, review each bone again and describe your observations.

<u>Bone in water</u>	<u>Bone in vinegar</u>
<ul style="list-style-type: none"> • Describe the texture. • Is the bone hard or soft? • Will it bend? 	<ul style="list-style-type: none"> • Describe the texture. • Is the bone hard or soft? • Will it bend?

Conclusion:

5. Compare the changes in the bone that was in water to the bone that was in the vinegar and draw conclusions for the differences.

The Skeletal System

Write a paragraph to explain what you know about the skeletal system. As you write your paragraph, make sure you include the following:

1. Explain the function of the skeletal system.
2. Describe adaptations of the bones in the skeletal system.
3. Identify ways to keep this system healthy.