

**13.2 "The Skeletal System"**

Date \_\_\_\_\_

Last Name \_\_\_\_\_, First \_\_\_\_\_ per \_\_\_\_\_

1. **Compare a bone to a rock.** List some ways in which bones and rock are similar and different.

| Similar | Different |
|---------|-----------|
|         |           |

2. What are the **5 functions of the skeletal system**?

- The skeleton provides \_\_\_\_\_ and support.
- The skeleton enables \_\_\_\_\_.
- The skeleton \_\_\_\_\_ internal organs.
- The skeleton produces \_\_\_\_\_.
- The skeleton \_\_\_\_\_ certain materials.

3. Name **3 bones of the leg**.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. What are all **animals with backbones** called?

Animals with backbones are called \_\_\_\_\_.

26 small bones called \_\_\_\_\_ make up your backbone.

5. What kind of **mechanical system** do bones and joints make up?

Bones and joints make up \_\_\_\_\_ in the body.

6. Describe how **bones protect the internal parts** of the body.

The \_\_\_\_\_ protects the brain

The \_\_\_\_\_ protects the heart and lungs

What protects the spinal chord? \_\_\_\_\_

7. Where are new **red and white blood cells** produced?

New red and white blood cells are produced in \_\_\_\_\_ .

8. **Bones are hard and strong.** Granite is strong. Bones are lighter than granite. Which can withstand more force before breaking?

\_\_\_\_\_ can withstand more force.

Bones are hard because they are made of the \_\_\_\_\_  
\_\_\_\_\_ and \_\_\_\_\_

9. Are bones alive? \_\_\_\_\_

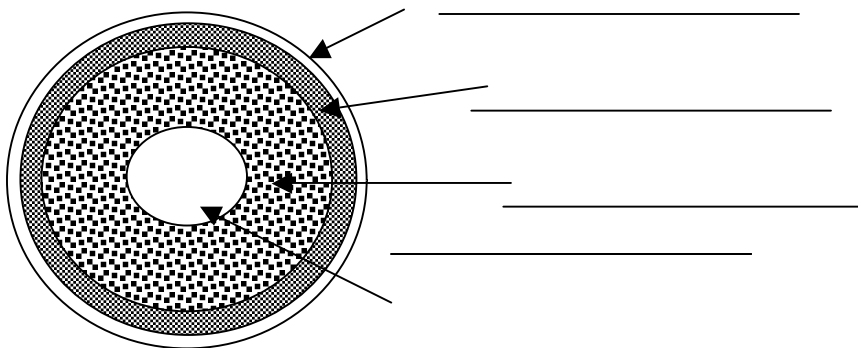
Name **2 things bone cells need.**

Bone cells need \_\_\_\_\_ and \_\_\_\_\_

10. Describe the **4 layers of the bone.**

1. Outer Membrane - this outer layer is \_\_\_\_\_.
2. Compact Bone - this middle layer is \_\_\_\_\_.
3. Spongy Bone - this middle layer is \_\_\_\_\_
4. Marrow - red marrow produces \_\_\_\_\_ and yellow marrow stores \_\_\_\_\_

11. Label the diagram showing the 4 layers of bone



12. What is **cartilage**?

\_\_\_\_\_ is \_\_\_\_\_ tissue that is more flexible than bone.

13. What purpose does the cartilage that covers the **ends of the bones** serve?

Cartilage covers the ends of bones to \_\_\_\_\_ and \_\_\_\_\_ them against wear.

What is your **nose and ears** made of?

Your nose and ears are made of \_\_\_\_\_

14. How does an infants **bones develop**?

An infant's skeleton mostly contains \_\_\_\_\_. Over time the cartilage is \_\_\_\_\_ by \_\_\_\_\_.

15. What is a **joint**?

A \_\_\_\_\_ is where 2 \_\_\_\_\_ join.

16. What are the 2 classes of joints.

1. \_\_\_\_\_ allow little movement
2. \_\_\_\_\_ allow a wide range of movement

Give an example of a immovable joint and a movable joint.

1. \_\_\_\_\_ is an immovable joint
2. \_\_\_\_\_ is a movable joint

17. What are **four types of movable joints**?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

18. Where in the body would you find the following?

- a. ball and socket joint \_\_\_\_\_
- b. hinge joint \_\_\_\_\_
- c. pivot joint \_\_\_\_\_
- d. gliding joint \_\_\_\_\_

19. How are **joints held together**?

Bones are held together at their joints by \_\_\_\_\_.

20. What are 2 things you can do to **keep your bones healthy and strong**?

1. Eat a \_\_\_\_\_ which includes the minerals \_\_\_\_\_  
and \_\_\_\_\_

2. Besides eating healthy, what other way can you make your bones stronger and more flexible?  
\_\_\_\_\_

3. What is **osteoporosis**?