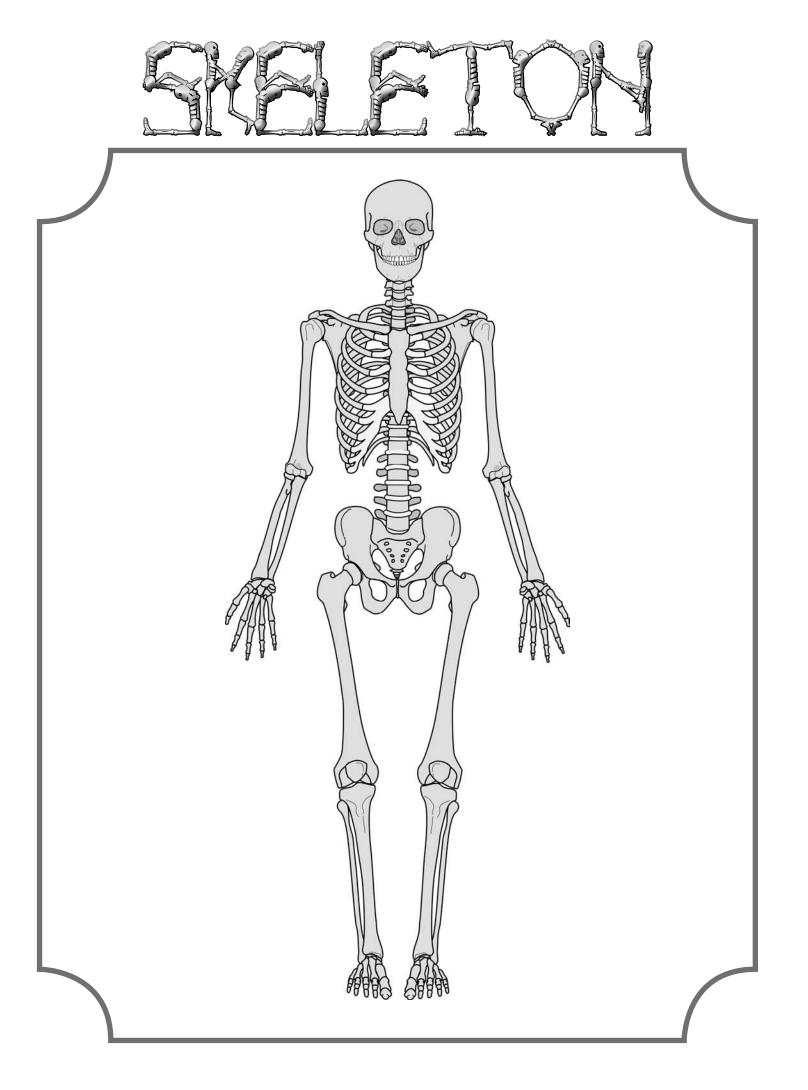






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NAME

## DATE.\_\_\_\_\_\_ NHĂT DO YOU RE ME MBER? LESSON 2

- 1. Name the different things that bones do for your body.
- 2. What is the periosteum?
- 3. What mineral makes compact bone strong and hard?
- 4. What is the bone tissue that forms tunnels and pores called?
- 5. What are the two kinds of bone marrow?
- 6. What are osteoblasts?
- 7. Where are the smallest bones in your body found?
- 8. Which is the longest bone in your body?
- 9. What do ligaments do?
- 10. What is the rounded part of your skull called?
- 11. Can you name at least five other bones in your body by their scientific names?

12.Can you name at least one kind of joint?

# VOCABULARY CROSSWORD SKELETAL SYSTEM 10 11 13 14 15 16 17 18 19 20 21 22 23 24 **SKELETAL SYSTEM OSTEOPOROSIS** REMODELING

SKULL RIB CAGE LIPIDS CALCIUM SUTURES CALLUS YELLOW OSTEOCLASTS OSTEOPOROSIS VITAMIN D RICKETS MALNUTRITION PERIOSTEUM SYNOVIAL FLUID FUSED RED REMODELING COLLAGEN SPONGY BONE LIGAMENTS CRANIUM FEMUR OSTEOBLASTS CARTILAGE



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# VOCABULARY CROSSWORD SKELETAL SYSTEM

### Across

- 1. This is the kind of bone marrow in which lipids (fats) are stored.
- 5. A mineral stored in your bones that helps keep your heart beating and your brain thinking. It also makes your bones strong.
- 6. This is the kind of bone marrow in which blood cells are made.
- 7. A disease that results in weak bones with lots of tiny holes in them.
- 9. A firm but resilient material in the body and on the ends of bones that absorbs shock well and keeps the bones from getting hurt when they rub against one another.
- 10. The bone cells that eat away at the spongy layer, causing your bones to get wider.
- 11. A disease that causes weak and misformed bones. People can get this disease when they do not get enough vitamin D.
- 14. This is what occurs when two smaller bones are joined together to form one bone.
- 15. The bony supportive structure within the human body. TWO WORDS
- 16. The tough fiber that makes up part of the bone.
- 18. The bones that protect your heart and lungs. TWO WORDS
- 19. The layer of bone under the compact bone. It is a network of pores and tunnels interconnected in a pattern that makes the bone strong yet resilient. TWO WORDS
- 20. The bones of your skull that protect your brain.
- 21. Joints that do not move.
- 22. A bulge that occurs in a broken bone while it is healing.
- 23. When a person doesn't get enough of the right kinds of nutrients.
- 24. Your body needs \_\_\_\_\_\_ to make strong bones. Your body makes this when it is exposed to the sun. TWO WORDS

## Down

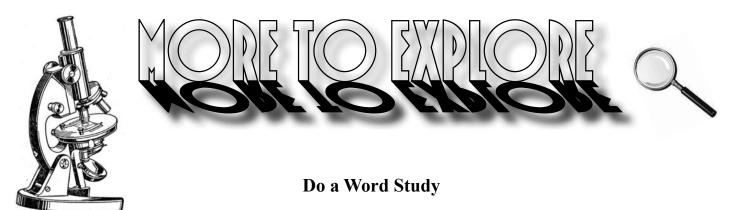
- 2. The cells that make new bones.
- 3. Fats that are stored in your bones, as well as elsewhere in your body.
- 4. The outside layer of a bone: a thin, tough membrane.
- 8. What scientists call it when the body breaks down old bone and rebuilds new bone.
- 12. The group of bones that make up your head.
- 13. Fluid that allows the joints to move more easily. TWO WORDS
- 14. The longest bone in the body the thigh bone.
- 17. The tissue that connects one bone to another bone.





A righteous man may have many troubles, but the LORD delivers him from them all; he protects all his bones, not one of them will be broken. Psalm 34:19-20 a righteous man may have many troubles, but the LORD delivers him from them all; he protects all his bones, not one of them will be broken. Paalm 34:19-20 30





What does the Bible say about bones? Use a concordance to find out! Look up the words "bone" and "bones" to see all the verses that contain these two words. Do a word study by looking up the verses. Write down your findings and present what the Bible says about bones to your family.

#### **Reconstruct a Skeleton**

Find a large picture of a skeleton and study the locations of the bones. Cut out each bone from the skeleton, then see if you can reconstruct the skeleton without looking at a model.

#### Test the Bone Strength of Different Animals

Over the course of a few weeks, save any bones from the different meals your family eats. Try to get an assortment of bones from different kinds of animals: cows, chickens, pigs and fish.

Now make a guess about which animal you think has the strongest bones. Test all the bones by submerging them in vinegar to find out which ones break down the quickest. Check the bones every day for two weeks, noting which ones are soft and pliable. Which animal's bones remained strong and sturdy? Was your original guess correct?

#### **Examine X rays**

X rays were discovered because of how radiation changed photo paper. Do some fun experiments with photosensitive paper. You can either get a Photo Print Kit (I saw some on eBay) or buy some paper from a supplier. Alternately, you can make photosensitive paper yourself using ferric ammonium citrate (be sure to discard properly as it can contaminate the environment).

#### **Bones for Dinner?**

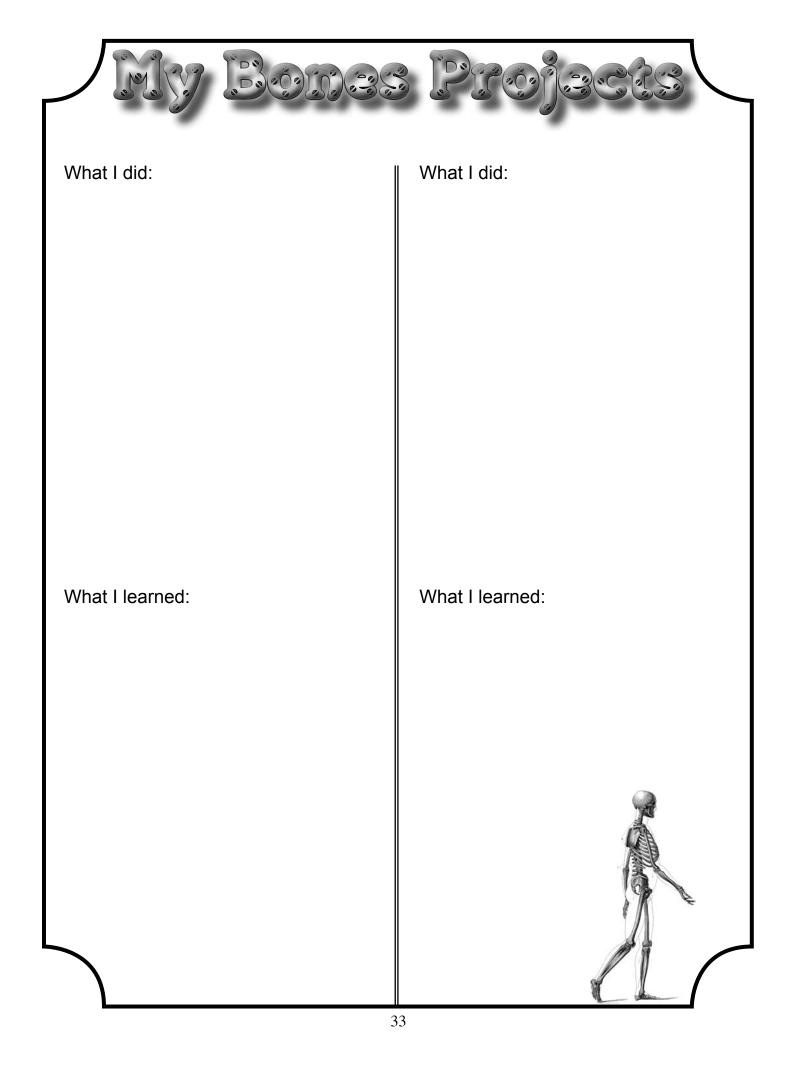
Did you know that bones are full of nutrition? It's true! People used to eat bone marrow for its nutritional value. It was even considered a delicacy! Chicken bones were also used in soups because of the minerals they provide. You can do an Internet search to find other ways in which people enjoyed the nutritional value of bones! Yum!

#### **Book Suggestions**

*Roentgen: The Head Bone's Connected to the Neck Bone* by McClafferty. I personally read and enjoyed this book.

#### **DVD Suggestions**

*Standard Deviants School - Anatomy, Program 1 - Bones* (Classroom Edition). This fast paced, action packed DVD takes you on an exciting journey into the skeletal system. It's available through Netflix.



SCIENTIFIC SPEC	ULATION SHEET
Name	Date
Materials Used:	
Procedure:	
Hypothesis:	
Results:	
Conclusion:	
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