Name: Period:

**A Visualization Exercise for the Skeletal System**

Where necessary, complete statements by inserting the missing words in the answer blanks.

***…stalagmite- and stalactite-like structures that surround you…***

***Since the texture is so full of holes***

1. For this journey you are miniaturized and injected into the interior of the largest

2. bone of your host’s body, the (1). Once inside this bone, you look around and find

3. yourself examining the stalagmite- and stalactite-like structures that surround you.

4. Although you feel as if you are in an underground cavern, you know that it has to

5. be bone. Since the texture is so full of holes, it obviously is (2) bone. Although the

6. arrangement of these bony spars seems to be haphazard, as if someone randomly

7. dropped straws, they are precisely arranged to resists points of (3). All about you is

8. frantic, hurried activity. Cells are dividing rapidly, nuclei are being ejected, and

9. disk-like cells are appearing. You decide that these disk-like cells are (4), and that

10. this is the (5) cavity. As you explore further, strolling along the edge of the cavity,

11. you spot many tunnels leading into the solid bony area on which you are walking.

12. Walking into one of these drainpipe-like openings, you notice that it contains a

glistening white rope-like structure (a (6), no doubt), and blood vessels running the

length of the tube. You eventually come to a point in the channel where the horizontal passageway joins with a vertical passage that runs with the longitudinal axis of the bone. This is obviously a (7) canal. Since you would like to see how nutrients are brought into (8) bone, you decide to follow this channel. Reasoning that there is no that you can possibly scale the slick walls of the channel, you leap and grab onto a white cord hanging down its length. Since it is easier to slide down than to try to climb up the cord, you begin to lower yourself, hand over hand. During your descent, you notice small openings in the wall, which are barely large enough for you to wriggle through. You conclude that these are the (9) that connect all the (10) to the nutrient supply in the central canal. You decide to investigate one of these tiny openings and begin to swing on your cord, trying to get a foothold on one of the openings. After managing to anchor yourself and squeezing into an opening, you use a flashlight to illuminate the passageway in front of you. You are startled by a giant cell with many dark nuclei. It appears to be plastered around the entire lumen directly ahead of you. As you watch this cell, the bony material beneath it, the (11), begins to liquefy. The cell apparently is a bone-digesting cell, or (12), and since you are unsure whether or not its enzymes can also liquefy you, you slither backwards hurriedly and begin your trek back to your retrieval site.