



# ACTIVITY 18-1

## Observing Bones

**LAB PREVIEW**

1. Where are red and white blood cells produced? \_\_\_\_\_

2. Why is the sharp object safety symbol necessary? \_\_\_\_\_

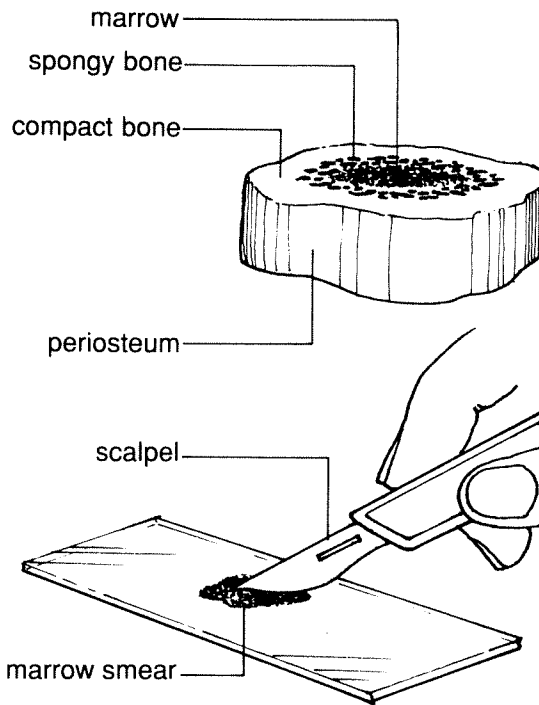
\_\_\_\_\_

**Problem:** What are the parts of a long bone?

**Materials**



- beef bone
- hand lens
- scalpel
- microscope slide
- coverslip
- dropper
- water



**Procedure**

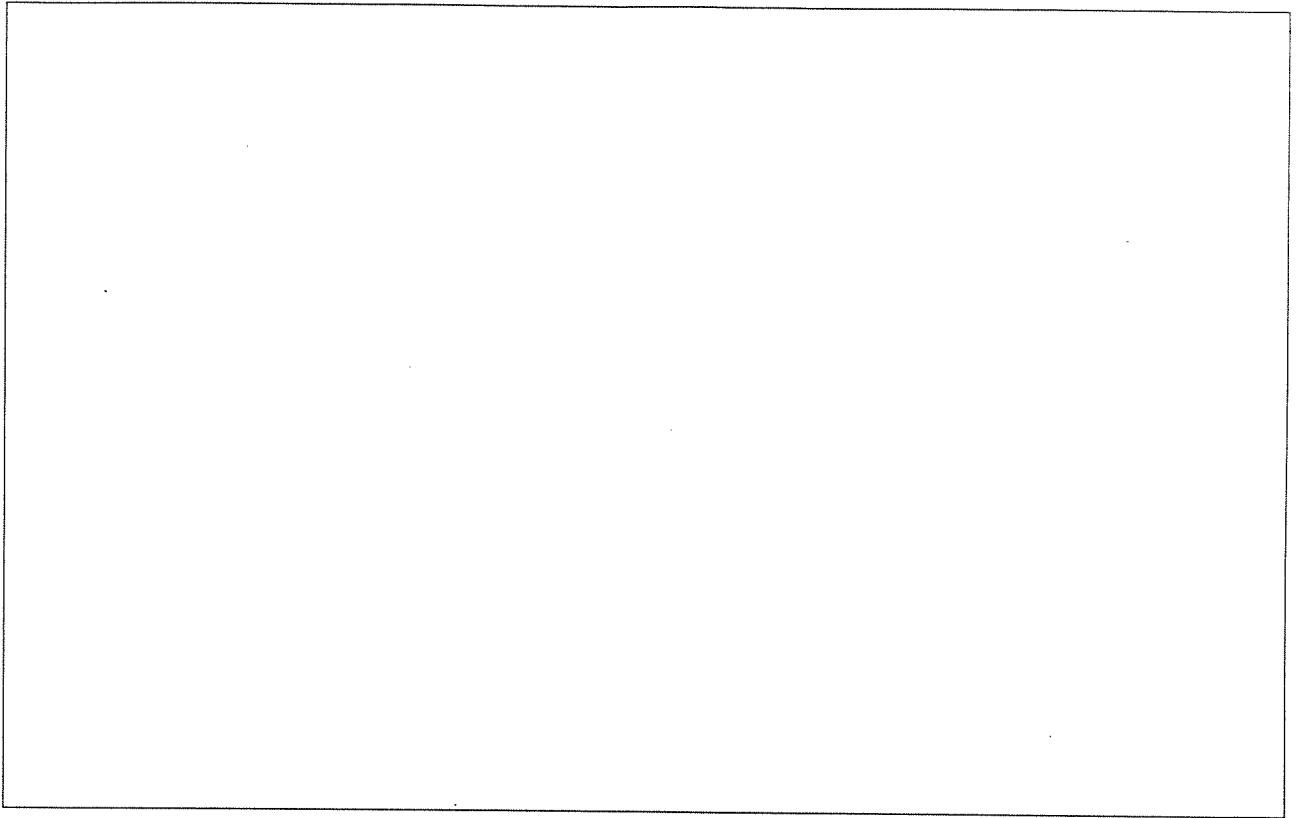
1. Use the table below to record your data.
2. Obtain a beef bone that has been cut in half along the length and width.
3. Observe the bone with a hand lens. Identify the periosteum, compact bone, spongy bone, and any marrow that is present.
4. Draw a diagram of the bone and label the parts you have been able to recognize. In the table, describe each part.
5. Use a scalpel to remove a very small piece of red marrow. **CAUTION:** Always use extreme care when using sharp instruments.
6. Make a temporary wet mount slide of the marrow. Examine it under low power. Describe what you see below and draw what you see on the next page.

**Data and Observations**

FEATURES OF BONE	
Part	Description
Periosteum	
Compact bone	
Spongy bone	
Marrow	

### Activity 18-1 (continued)

#### Drawings



#### Analyze

1. What parts of the bone are you able to identify? \_\_\_\_\_  
\_\_\_\_\_
2. Describe the portions of the bone that contain marrow. \_\_\_\_\_  
\_\_\_\_\_
3. What differences did you observe in the overall shape of the bone? \_\_\_\_\_  
\_\_\_\_\_

#### Conclude and Apply

4. How might the functions of spongy bone and compact bone be related to the shape of the areas in which they are found? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. From your observations, where would you say that most calcium is stored in a long bone? \_\_\_\_\_  
\_\_\_\_\_