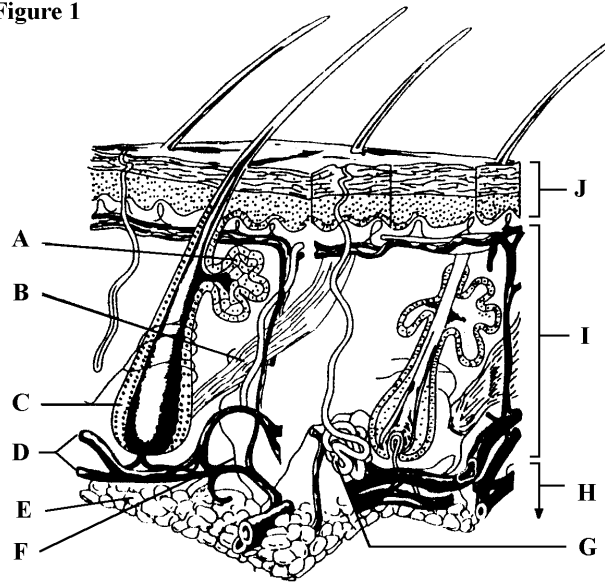


**Introduction**

Being able to read illustrations is an important skill, not only in biology, but in other areas of study as well. In this activity you will interpret illustrations to identify the structures and functions of skin and bones. Figure 1 shows a cross-section of skin.

**Figure 1**



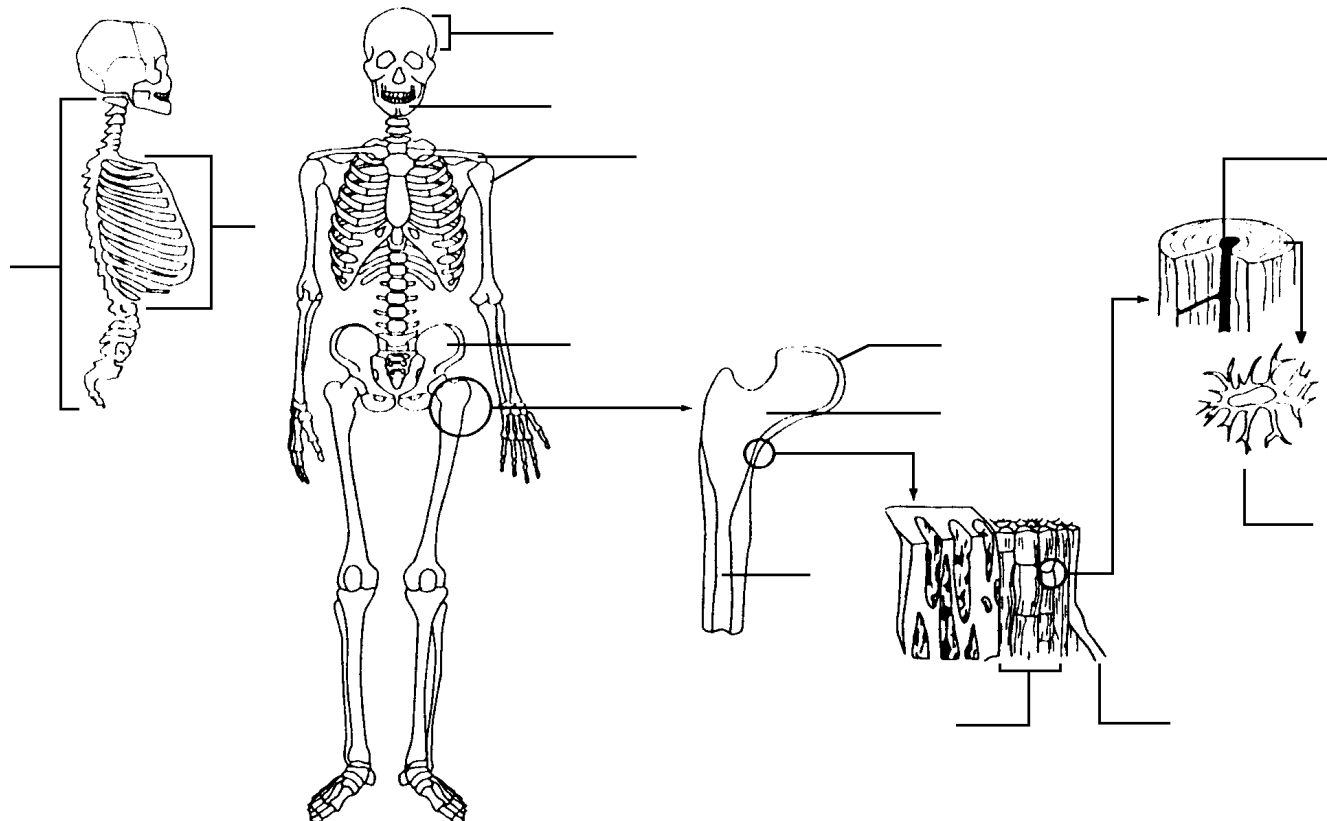
**Procedure**

- Match the letter of each structure in the diagram above with the correct name in the following list and describe its purpose or relationship with the skin..

- \_\_\_\_\_ Blood vessels - \_\_\_\_\_
- \_\_\_\_\_ Sebaceous gland - \_\_\_\_\_
- \_\_\_\_\_ Epidermis - \_\_\_\_\_
- \_\_\_\_\_ Muscle - \_\_\_\_\_
- \_\_\_\_\_ Hair follicle - \_\_\_\_\_
- \_\_\_\_\_ Hypodermis - \_\_\_\_\_
- \_\_\_\_\_ Nerve - \_\_\_\_\_
- \_\_\_\_\_ Fat - \_\_\_\_\_
- \_\_\_\_\_ Dermis - \_\_\_\_\_
- \_\_\_\_\_ Sweat gland - \_\_\_\_\_

- What is the most important function of the integumentary system? How does it perform this function?

**Figure 2**



3. Figure 2 is a diagram of the human skeleton including a magnified section of a typical long bone. Match each of the following functions of the skeletal system parts with the corresponding structure in Figure 2. Write the number of each function on one of the lines provided in the figures.

- |  |  |
|--|--|
| 1. Protects the lungs, heart, and other chest organs   | 8. Makes bones hard  |
| 2. Protects the pelvic organs and anchors the legs     | 9. Reduces friction between bones that touch each other      |
| 3. Protects the spinal cord                            | 10. Provides some support; a storage area for marrow         |
| 4. Protects the brain                                  | 11. Forms blood cells  |
| 5. Shapes the face; allows chewing                     | 12. Repairs and nourishes the bone                           |
| 6. Provides support; anchors the arms                  | 13. Living part of bone that constantly replaces bone tissue |
| 7. Carries food and oxygen to living cells in the bone |  |

4. Describe four important functions of the skeletal system.

- a.
- b.
- c.
- d.