



STUDENT WORKSHEET

FOR

MICROSLIDE™ LESSON SET 223

THE SKELETAL SYSTEM

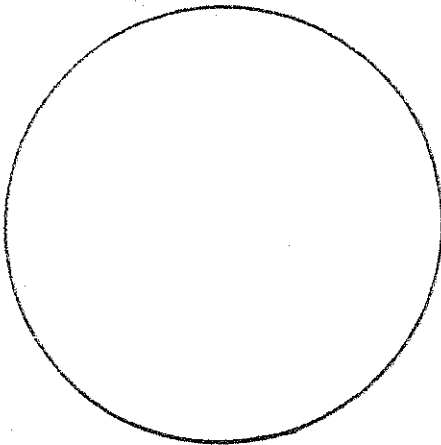
STUDENT'S NAME _____ CLASS _____ DATE _____

INTRODUCTION

In this unit we will examine examples of elements that make up your skeletal system. You will use the Micro-Slide-Viewer™, Microslide™ and Text Folder.

Read and follow the directions for the use of the Micro-Slide-Viewer™ and the Microslide™ on the envelope attached to the text folder and holding the slides.

Examine each slide and study the description in the text folder. After studying each slide and the printed text, answer the question for that slide on this worksheet. If you don't know the answer, go on to the next slide and question. You may find the answer as you learn more about the subject. Draw what you see in the space provided.

SLIDE 1 - BONE

- Draw what you see in this slide.
- The parts labelled 'H' are _____
- The parts labelled 'C' are _____
- The parts labelled 'T' are _____
- What is the function of the material labelled 'C'? _____

SLIDE 2 - MEMBRANOUS BONE

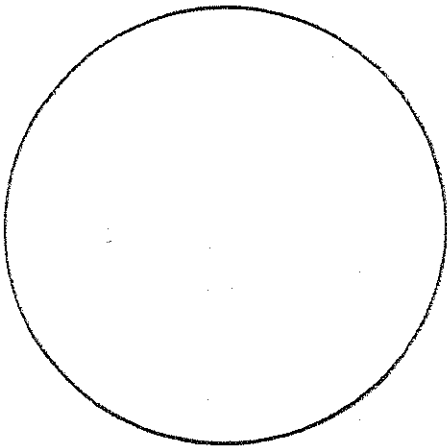
- Most bone in the body starts out as a rubbery material called _____
- What advantage may result from the fact that a baby has soft bones instead of rigid bones? _____
- Hard bones such as the clavicle (collar bone) are called _____ bones.
- Notice the bone cells in this slide (labelled A). How does this tissue sample differ from the tissue labelled 'T' in Slide 1? _____

SLIDE 3 - BONE MARROW

- a. Red blood cells are formed in _____
- b. What are the cells labelled 'R' at the left side of this slide?

- c. The large, dark stained, cells labelled 'L' on the right side of the slide are _____ cells.
- d. What effect do these cells have on formation of normal blood?

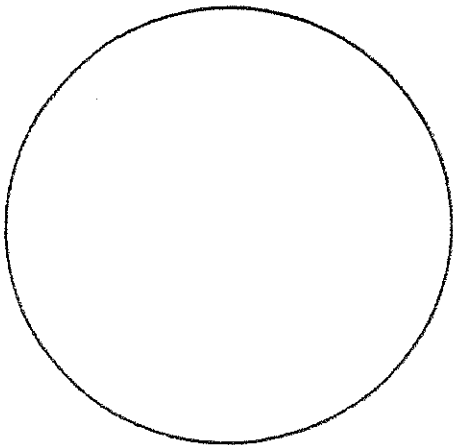
SLIDE 4 - BONE FRACTURE



- a. Draw what you see in this slide. Label the fractured bones with an arrow.
- b. What material in bones do you think causes broken bones to knit together?

- c. Why do you think an arm like the one pictured here has to be put into a cast?

SLIDE 5 - CARTILAGE



- a. Draw what you see in this slide.
- b. Label the cartilage material and the cells that secrete it.
- c. Can you explain why torn cartilage takes a long time to heal?

SLIDE 6 - ARTHRITIS

a. When skeletal joints fail to receive sufficient lubrication the resultant swelling and discomfort is called _____

b. Why do you think the toes seen in the x-ray are bent? _____

SLIDE 7 - LIGAMENTS

a. Most of a ligament is made up of (living) (non-living) fibers. Underline your choice.

b. Damaged ligaments heal (slowly) (rapidly). Underline your choice.

c. Explain your answer to (b). _____

SLIDE 8 - TENDONS

a. Ligaments attach _____ to _____

b. Tendons attach _____ to _____

c. Which are more elastic tendons or ligaments? Underline your choice.

d. What happens if your tendons were stretched too much? _____

e. How does the muscle tissue on the left side of this slide compare with the ligament tissue of Slide 7? _____

f. Tendons are primarily made up of (living) (non-living) tissue and are (quick) (slow) healers. Underline your choices.

EXTRA CREDIT

How do human skeletons compare to exoskeletons of insects and crustaceans? _____

Which do you think is a better arrangement? _____

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