

Interactions CD: Support & Movement

Bone Formation: Bone Growth & Remodeling

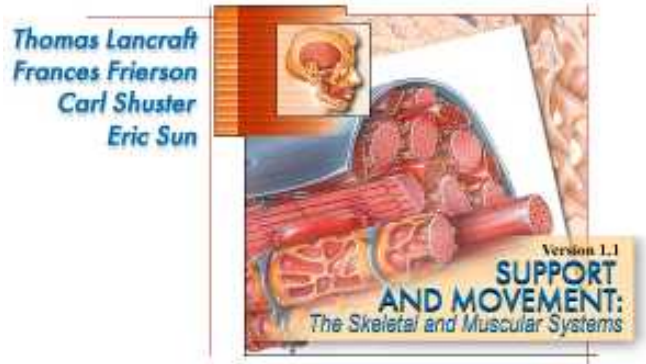
Directions:

Insert and install your Interactions: Foundations CD.

- Click the "Contents" button,
- Open the Skeletal System file,
- Click on Animations,
- Work through Bone Growth & Remodeling.

Complete the following worksheet and add it to your notes.

Interactions: Support & Movement CD/Contents/Skeletal System/Animations/Bone Growth & Remodeling



1. Which bones undergo intramembranous ossification? Which bones undergo endochondral ossification?

2. Where does bone widening occur?

3. Where does bone lengthening occur?



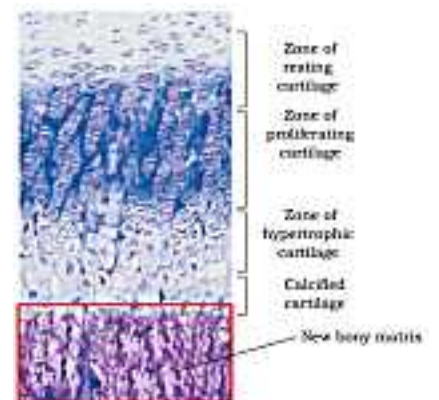
- 4 Describe the four zones of the epiphyseal plate, and the function of each:

a. *Zone of Resting Cartilage* - _____

b. *Zone of Proliferating Cartilage* - _____

c. *Zone of Hypertrophic Cartilage* - _____

d. *Zone of Calcified Cartilage* - _____



6. Describe the role of the *osteoclasts* and *osteoblasts*.



7. What forms the *epiphyseal line*? _____

8. What is the role of the *periosteum*? _____

9. Describe the role of the following with regard to bone widening.

a. *Osteogenic cells* - _____

b. *Osteoblasts* - _____

c. *Groove formation* - _____

d. *Central canal* - _____

e. *Endosteum* - _____

f. *Lamellae formation* - _____

g. *New Osteon formation* - _____

10. Describe the role of *osteoclasts* along the inner surface of bone at the *endosteum*.

