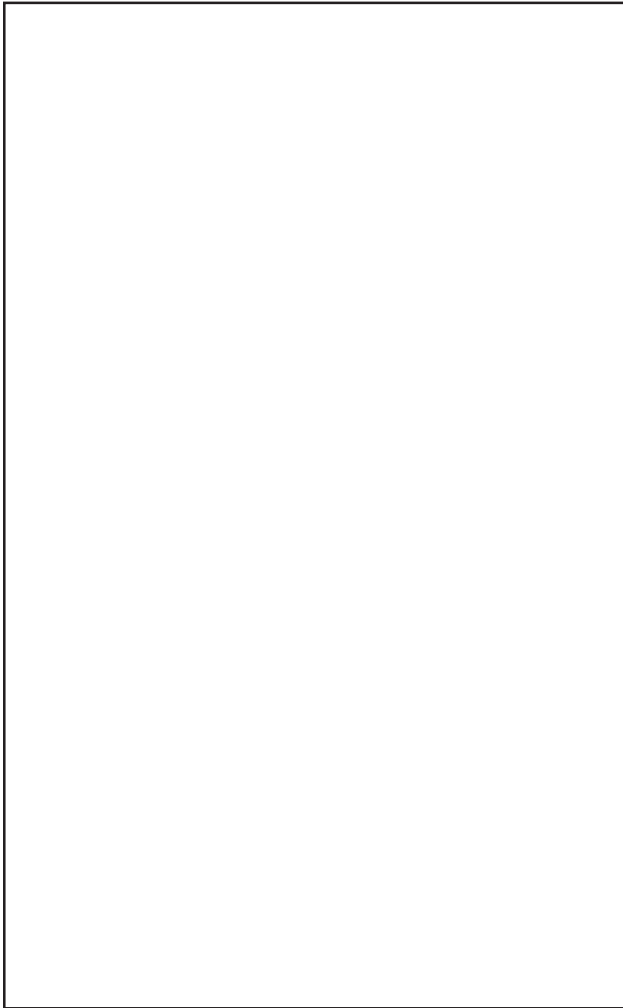
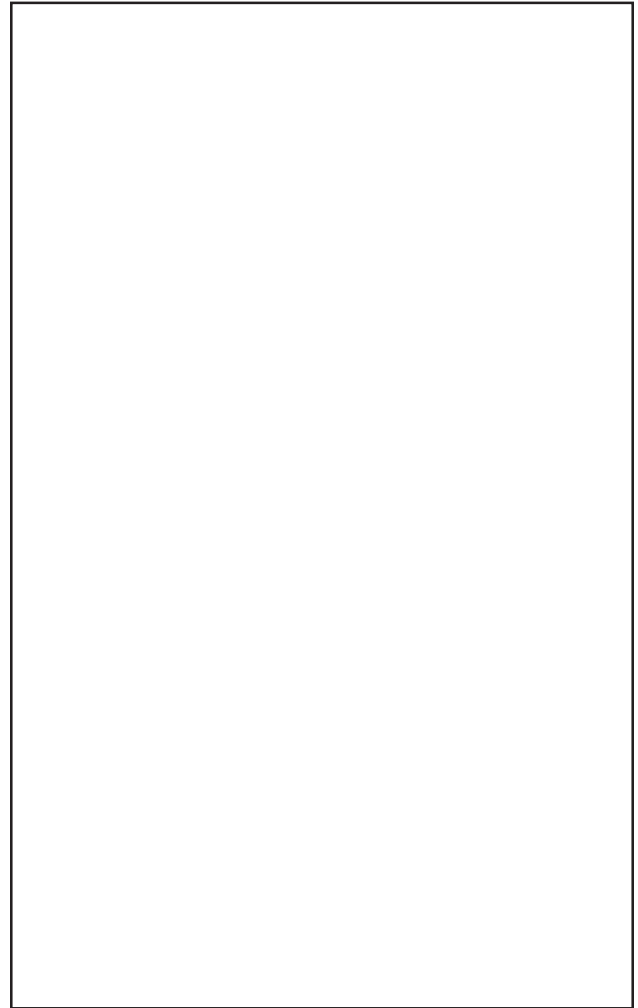


ACTIVITY 2H: THE INSIDE STORY-STUDENT HANDOUT CHANGES IN THE SKELETON ACROSS A LIFE SPAN

Most of the bones that will form are made from cartilage. This process starts before birth. The cartilage turns into true bone by a process known as ossification. The areas of ossification appear at set times during the growth of a healthy child. As we grow, our body proportions change somewhat. For example, the infant's head, in proportion to the rest of its body, is larger than the adult's head in proportion to the rest of its body.

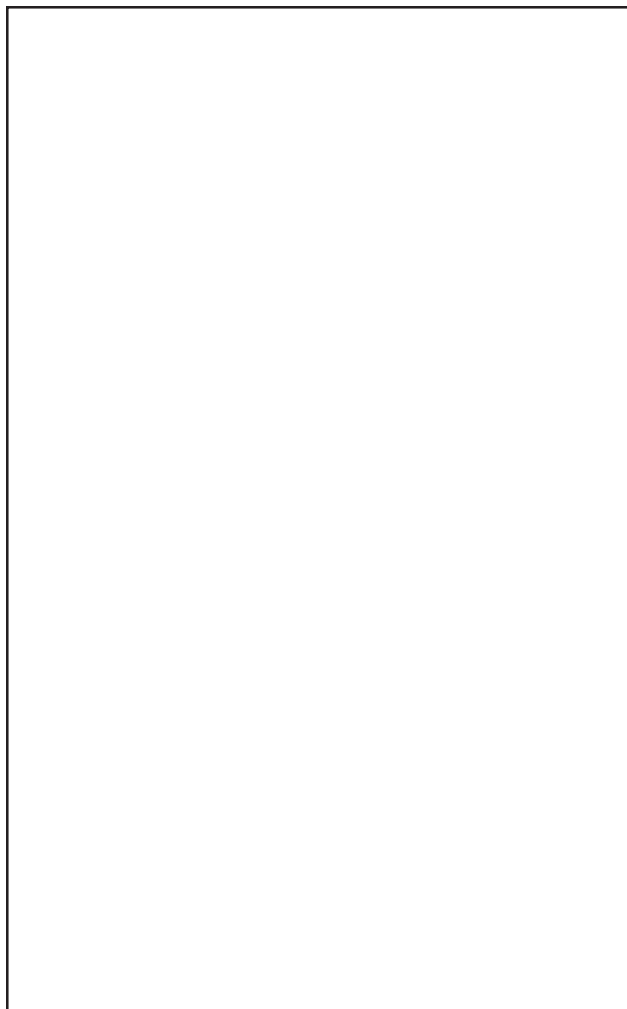


INFANT (LESS THAN 1 YEAR)

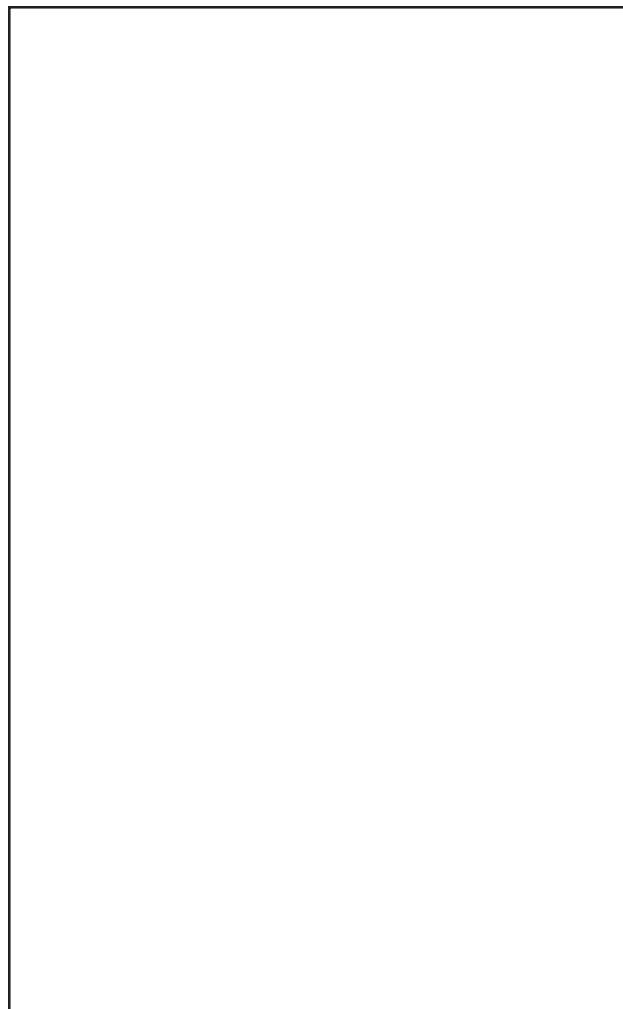


TODDLER (AGE 1 TO 2)

ACTIVITY 2H: THE INSIDE STORY



YOUNGSTER (AGE 3 TO 9)



YOUTH (AGE 10 TO 13)

ACTIVITY 2H: THE INSIDE STORY

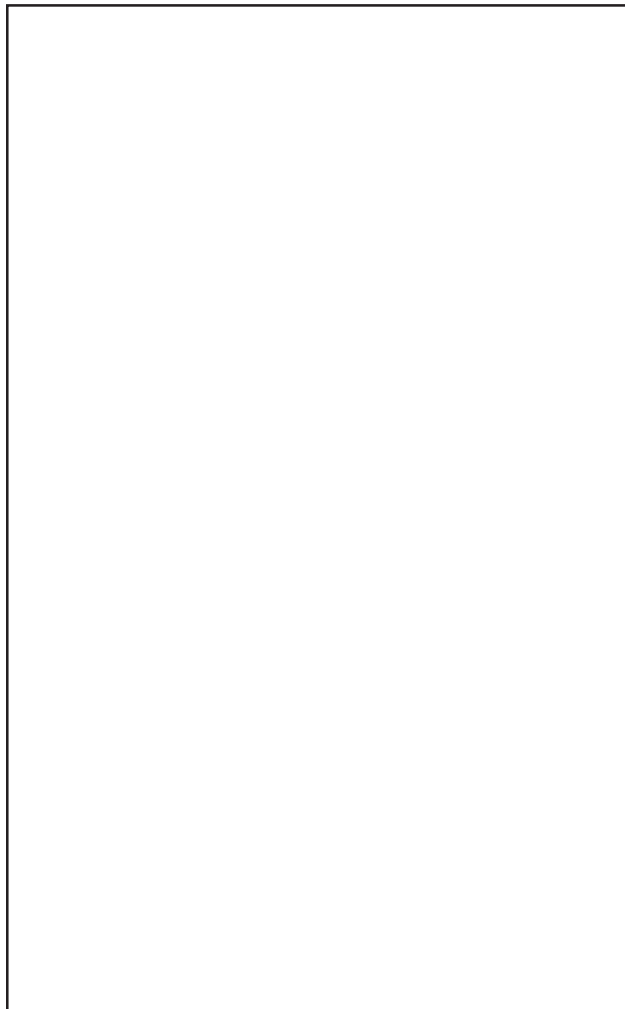
There is dramatic growth spurt in the length of long bones. New bone is added to skeleton faster than old bone is removed. Therefore, bone grows larger, heavier, and denser. Long bone growth ends at about 18 years of age in females and 21 years of age in males. Bones are still continuing to grow in width.



ADOLESCENT TO YOUNG ADULT (AGE 14 TO 25)

ACTIVITY 2H: THE INSIDE STORY

Peak bone mass (maximum bone density and strength) has occurred. Bone removal begins to overtake bone replacement. If removal is too quick, replacement is too slow and bone becomes weaker.



ADULT

ACTIVITY 2H: THE INSIDE STORY

Progressive spinal deformity—if compression fractures of thoracic and lumbar vertebrae occur, this may cause loss of height. In severe bone loss, the lower ribs eventually rest on top of the pelvis, and downward pressure on internal organs causes the abdomen to distend or bulge. Skeletal mass may be reduced to half what it was at age 30. This process may be delayed with good nutrition and exercise.



AGED ADULT WITH OSTEOPOROSIS