Worksheet 62

Skeleton and Joints

Use with Chapter 34, Section 34.2

1. Explain how a pivot joint works.

2. What is the difference between ligaments and tendons?

3. Look at the different types of joints highlighted in the separate boxes on the transparency. What do all of the joints have in common? What type of joint is not highlighted in a separate box?

4. Describe the action of a gliding joint.

5. Why is it important for the structure known as a bursa to be located between moveable bones in places such as the shoulder and knee?

6. Identify three hinge joints other than the elbow.


8. Where do most joint injuries tend to occur? Why?

Worksheet 63

Structure of Bone

Use with Chapter 34, Section 34.2

1. Describe the location and function of the osteon systems.

2. What is the function of the membrane that covers compact bone?

3. What are the various sites in the skeletal system where bone marrow can be found?

4. Briefly describe the formation of bone from cartilage.

5. Where do bones grow in diameter? Where do they grow in length?

6. What types of cells are produced by red bone marrow?

7. What is the function of yellow bone marrow?

8. What is the innermost layer component of a bone?

9. What component of bone secretes a substance in which minerals are deposited?

10. Describe a vital function of bones other than providing physical support for the body. What parts of the bone carry out this function?
Worksheet 64
Muscle Contraction

Basic Concepts

1. What causes the striated appearance of skeletal muscles?

2. What is a sarcomere?

3. When a nerve signals a muscle to contract, where is calcium released?

4. Study the drawings in the transparency showing two sarcomeres in relaxed, contracting, and maximally contracted states. What happens in the presence of calcium?

5. What is needed besides calcium for contraction to occur?

6. What is the name of the theory of muscle contraction illustrated in the transparency?

7. In terms of your control over muscle contraction, how does skeletal muscle differ from smooth muscle or cardiac muscle?

8. In what way is the appearance of cardiac muscle similar to that of skeletal muscle?

Worksheet 49
The Muscular System

Reteaching Skills

1. What do all the muscles shown in the transparency have in common?

2. Using the transparency, determine what movement occurs when the deltoid muscle contracts.

3. If you are sitting and want to raise your lower leg so that your entire leg is straight, what muscle must your brain order to contract?

4. If you want to bend your foot upward from the ankle, what muscle must you contract?

5. If you were to bend your elbow in order to touch your shoulder, what arm muscle would contract?

6. Which abdominal muscles help you to do a sit-up?

7. What happens to the gastrocnemius when you stand on the balls of your feet, lifting your heels off the ground?

8. You are sitting in a chair at your desk. Someone enters the room, and you turn at the waist to see who it is. Which abdominal muscles allow you to make this turn?

9. Which chest muscles are primarily responsible for your ability to do a push-up?

10. Which muscle allows you to lift your eyebrows?