

13.3 The Muscular System

date _____

Last Name _____ First _____ per _____

1. **Major Function of the Muscular System.** *Complete the sentences.*
 - a. The major function of the _____ system is to _____ and its _____.
 - b. How do muscles change when they contract? _____
 - c. How do muscles change when they relax? _____

2. **Compare and contrast: Voluntary vs. involuntary muscles**
 - a. What type of muscle is under conscious control? _____
 - i. Example _____
 - b. What type of muscle works unconsciously? _____
 - i. Example _____

3. What are the **three types of muscles and their functions?**
 - a. _____ move _____
 - b. _____ move _____
 - c. _____ move _____

4. **Skeletal Muscles**
 - a. Why are skeletal muscles also called striated muscles? _____
 - b. Are skeletal muscles voluntary or involuntary? _____

5. **Tendons**
 - a. How are muscles connected to bones? _____
 - b. What are tendons made of? _____

6. Describe how **muscles work in pairs** when you flex and extend your arm.
 - a. To flex your arm your biceps _____ while your triceps _____
 - b. To extend your arm your biceps _____ while your triceps _____

7. **Cardiac Muscle**
 - a. Name an organ that is made of cardiac muscle. _____
 - b. What does cardiac muscle move? _____
 - c. Are cardiac muscle smooth or striated? _____
 - d. Which of these types of muscles do not get tired? *Circle our answer.*
 - i. skeletal, cardiac, or smooth

8. **Heart Rate**
 - a. How many times is your heart likely to beat if you live until your 90?
 - i. Your pulse in 15 seconds = _____
 - ii. 15 second heart rate X 4 = _____
 - iii. Heart rate/ minute X 60 = _____
 - iv. Heart rate per hour X 24 = _____
 - v. Heart rate per day X 365 = _____
 - vi. Heart rate per year X 90 = _____

9. Smooth Muscle

a. Which type of muscle moves food and waste through your digestive system?

b. What do you call this type of muscle movement? _____

c. Why are smooth muscles called involuntary muscles? _____

10. Review Name the 3 kinds of muscle.

a. _____

b. _____

c. _____

11. Name 4 things you can do to take care of your muscles.

a. _____

b. _____

c. _____

d. _____

12 Color the muscles.

