

Name: \_\_\_\_\_ Class period: \_\_\_\_\_ Date: \_\_\_\_\_

### **Muscular System Study Guide**

Describe the three main functions of the muscular system.

1.

2.

.

3.

Name the three types of muscle tissue.

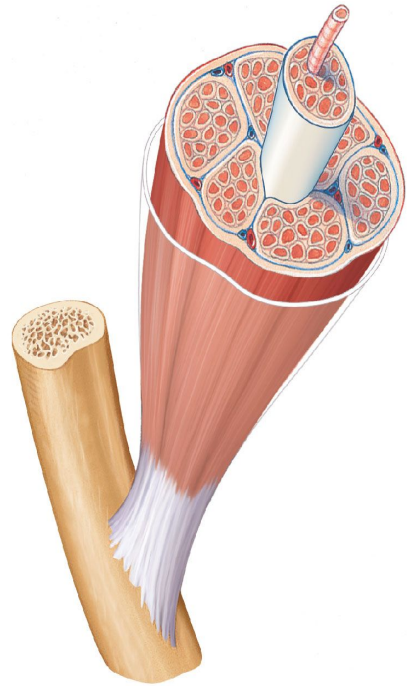
1.

2.

3.

Compare the structure, function, location, and regulation of contraction between cardiac, smooth, and skeletal muscle.

Define (include type of connective tissue) and label the following parts of a muscle: endomysium, perimysium, epimysium, fascia, fascicle, and muscle fiber.



What is the origin and insertion of a muscle? How does the muscle move in relation to the origin and insertion when it contracts?

Define the following skeletal muscular movements and provide an example of each.

Flexion:

Plantar flexion:

Extension:

Inversion:

Rotation:

Eversion:

Abduction:

Supination:

Adduction:

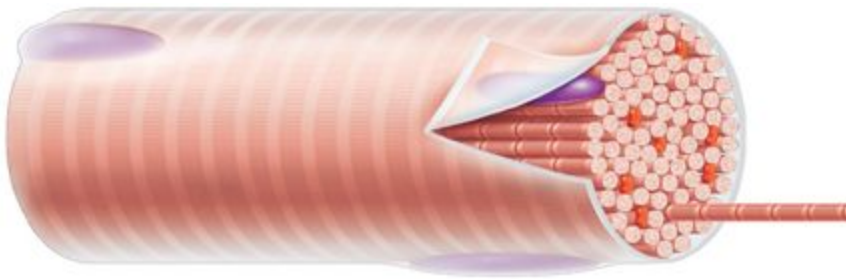
Pronation:

Circumduction:

Opposition:

Dorsiflexion:

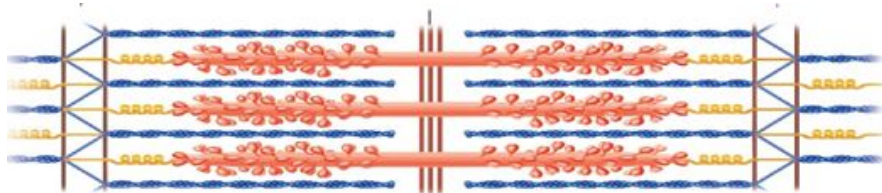
Label and define the following parts of a muscle fiber: sarcolemma, myofibril



Label and define the following parts of a myofibril: sarcoplasmic reticulum, I band, A band, sarcomere, thick filaments, thin filaments.



Label the following parts of a sarcomere: thick filaments (including myosin heads), thin filaments



I bands are composed only of \_\_\_\_\_ filaments containing the protein \_\_\_\_\_

A bands are composed of both thin filaments and \_\_\_\_\_ filaments containing the protein \_\_\_\_\_

Summarize the steps in the sliding filament theory.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

What event is common to all muscle contractions?

Compare and contrast tonic, isotonic, and isometric contractions.