

## Tour Through the Muscular System Lab Sheet:

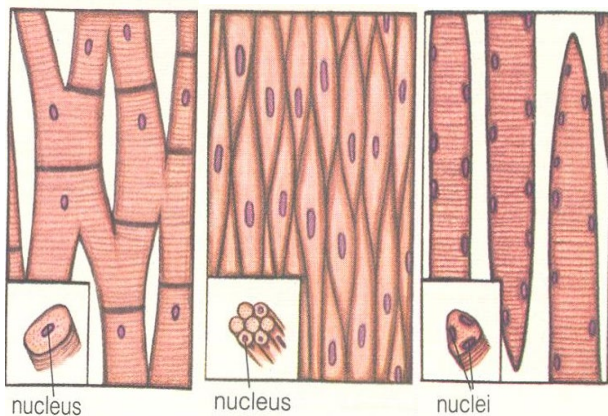
### Muscular System

There are roughly \_\_\_\_\_ muscles in the human body.

Muscles Are:

- ✚ Needed for \_\_\_\_\_
- ✚ Needed to \_\_\_\_\_
- ✚ Needed to \_\_\_\_\_
- ✚ Needed to \_\_\_\_\_
- \_\_\_\_\_
- ✚ Needed to \_\_\_\_\_

**3 Types of Muscle:** Identify each of the types of muscle tissue below:



### Skeletal Muscle Tissue:

- ✚ Moves your \_\_\_\_\_
- ✚ Voluntary (\_\_\_\_\_)
- ✚ Over \_\_\_\_\_ in your body
- ✚ Long cells with \_\_\_\_\_  
(along edges of cell)
- ✚ Stripes called \_\_\_\_\_ in cell
- ✚ **Explain** how to identify this muscle tissue under a microscope:

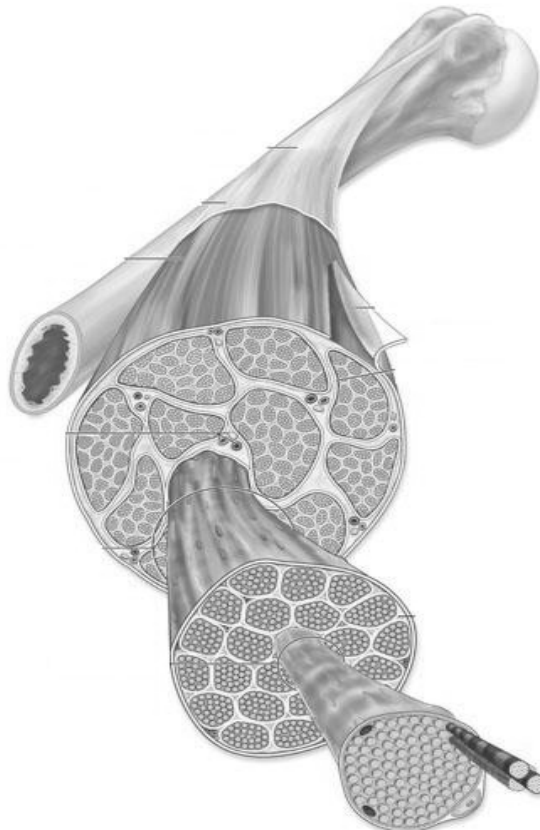
### Cardiac Muscle Tissue:

- ✚ The muscle of the \_\_\_\_\_
- ✚ Involuntary (\_\_\_\_\_)
- ✚ Works \_\_\_\_\_ a day
- ✚ Strongest \_\_\_\_\_
- ✚ Only \_\_\_\_\_ per cell (usually in \_\_\_\_\_)
- ✚ Some \_\_\_\_\_ (\_\_\_\_\_)
- ✚ **Explain** how to identify this muscle tissue under a microscope:

### Smooth Muscle Tissue:

- ✚ Muscles of the \_\_\_\_\_
- ✚ Involuntary (\_\_\_\_\_)
- ✚ Contract \_\_\_\_\_ and \_\_\_\_\_
- ✚ Usually \_\_\_\_\_ per cell.
- ✚ No \_\_\_\_\_
- ✚ **Explain** how to identify this muscle tissue under a microscope:

**Anatomy of a Muscle:** Label the bone, tendon, myofibril, fascicle, body of muscle, and muscle fiber



### How a Muscle Works:

- A skeletal muscle works by \_\_\_\_\_.
- Each muscle cell is made up of many smaller \_\_\_\_\_.
- The \_\_\_\_\_ are in contact with a \_\_\_\_\_.
- Myofibrils are made of two proteins, \_\_\_\_\_ and \_\_\_\_\_.
- The \_\_\_\_\_ and \_\_\_\_\_ past \_\_\_\_\_ causing the muscle to \_\_\_\_\_.
- Explain, in your own words how muscles contract through actin and myosin filaments sliding past each other:

### Opposites Contact and Relax:

- Muscles work in pairs called \_\_\_\_\_.
- The biceps muscle will \_\_\_\_\_ (\_\_\_\_\_) the arm at the elbow = \_\_\_\_\_ and the triceps muscle will \_\_\_\_\_ (\_\_\_\_\_) the arm = \_\_\_\_\_.
- While one muscle in the pair \_\_\_\_\_ the other must \_\_\_\_\_.
- The other opposing groups moves your limbs (like arms and legs) \_\_\_\_\_ or \_\_\_\_\_ the \_\_\_\_\_.
- The deltoid muscle will move the arm \_\_\_\_\_ the body= \_\_\_\_\_ muscle, and the latissimus dorsi will move the arm \_\_\_\_\_ the body= \_\_\_\_\_ muscle.

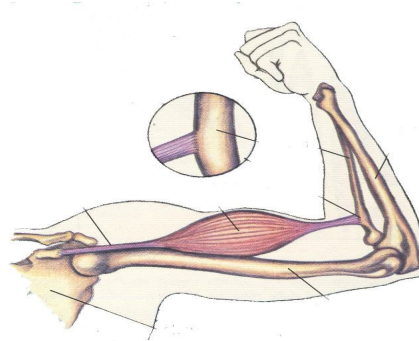
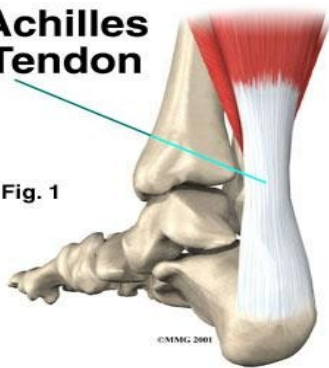
### Muscle to Tendon to Bone:

Tendons attach \_\_\_\_\_ to \_\_\_\_\_.

Label the bone, muscle, and tendon in each picture:

**Achilles Tendon**

Fig. 1



Using the muscle diagrams in the muscle system tour, identify and label the following muscles. Use this word bank of muscles to help you:

Gluteus maximus

Latissimus dorsi

Pectoralis major

Gastrocnemius

Triceps

Brachioradialis

Deltoid

Biceps

Exterior oblique

Gluteus medius

