Name _____ Per. _____ Date _____

Chapter 7- Lab (Honors)
Building Muscles From Clay

Purpose: **You will be learning about skeletal muscles by group; their origins and insertions, how muscles are named and the actions of muscles.**

You will be building muscles out of clay by group and attaching them to a skeleton at the correct origin and insertions.

Materials: **Clay, 16" Skeleton, clay knife, and a clay rolling pin.**

Procedure:

1. Prior to building muscles, you will fill out the muscle table identifying the origins, insertions, and actions of each muscle. There is a muscle chart in the references section of the class website that will have all of the origins, insertions, and actions for you.
2. During labs, you will build muscles out of clay. You may need to use a clay knife and your clay rolling pin to construct the muscles. Be sure to accurately portray the muscles' striations on the clay.
3. Attach your clay muscle to the appropriate area and landmarks on the skeleton.
4. You will then take a pictures of each muscle making sure that each muscle is visible and distinct.

   Use the whiteboard and marker to name your muscles.

5. For your pictures, you will need to identify the muscles by name and you will need to identify their origins, insertions, and actions. You will not receive credit for this lab without pictures.
6. Organize the pictures of your muscles on each page by their action and counter action. For example, Biceps brachii and Triceps brachii will be on the same page because both of these muscles counteracts the actions of the other.

Helpful Website

Here is a helpful website that will have images of actual student work. The detail is not as exact as I would like, but the images are good for you to see.

1. http://www2.estrellamountain.edu/muscledb/musclelist.asp
2. http://www.rad.washington.edu/academics/academic-sections/msk/muscle-atlas

Conclusion Questions

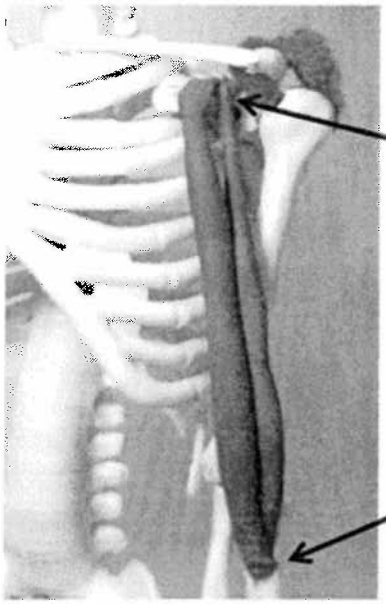
1. A person enters a doctor's office and is complaining that he has a severe pain in his anterior thigh. He can barely walk. Upon examination, the doctor notices swelling and extreme tenderness to the touch. He asks the patient to sit on the table allowing his knee to hang freely. The doctor asks the patient to extend his knee. When the patient does this, the patient complains of extreme pain and discomfort and the doctor notices an abnormal bulge in his thigh. Discuss what type of injury the patient could possibly have. What muscle group has been affected? List all muscles that are part of this group.

   You will create your own slide at the end of your lab group's presentation. You will answer this task on your slide.

   Along with answering your task, find a picture of the injury and insert it into your slide along with your answer to the task.

Example of Layout for Clay Muscles

Biceps brachii

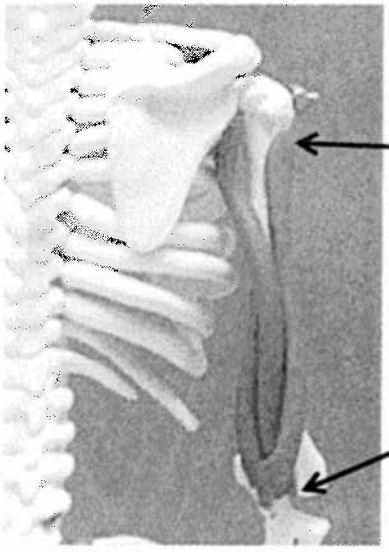


Action: _____

Origin: _____

Insertion: _____

Triceps brachii



Action:

Origin: _____

Insertion: _____

Pre-Lab Table- Given the muscles and their groups, fill in their origin and insertion attachments on the bones.

1.	Muscles of the Chest	Origin	Insertion	Action
	Pectoralis major (arm mover)			

2..	Muscles of the Back	Origin	Insertion	Action
	Latissiumus dorsi (arm mover)			

3.	Muscles of the Shoulder	Origin	Insertion	Action
	Deltoid (arm mover)			

4.	Muscles of the Arm (Anterior)	Origin	Insertion	Action
	Biceps brachii(Long & Short Head)- (forearm mover)			

5.	Muscles of the Arm (Posterior)	Origin	Insertion	Action
	Triceps brachii (Long and Lateral Head)- (forearm mover)			

6.	Muscles of the Hip and Thigh (Anterior)	Origin	Insertion	Action
	Rectus femoris (quadricep)			

7.

Muscles of the Hip and Thigh (Posterior)	Origin	Insertion	Action
Gluteus maximus (thigh mover)			
Iliopsoas Iliacus			
Biceps femoris (hamstring)			

8.

Muscles of the Thigh (Medial)	Origin	Insertion	Action
Adductor magnus (thigh mover)			

9.

Muscles of the Thigh (Lateral)	Origin	Insertion	Action
Tensor fasciae latae (thigh mover)			

10.

Muscles of the Lower Leg, Ankle, and Foot (Anterior)	Origin	Insertion	Action
Tibialis anterior (foot mover)			

11.

Muscles of the Lower Leg, Ankle, and Foot (Posterior)	Origin	Insertion	Action
Gastrocnemius (foot mover)			