


Name _____

Exploring Muscles & Bones

	<p><u>Goggles, gloves & aprons must be worn at all times.</u></p> <p>Scalpels & scissors are sharp – be careful.</p> <p>Dispose of chicken parts according to instructions.</p> <p>Use Clorox wipe to clean table.</p> <p>Wash your hands when you are finished.</p>
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Materials:

Dissecting tray	Scalpel	Plastic bag
Probe	Gloves	Chicken wing
Forceps	Goggles	Apron
Clorox wipes		

Procedure:

- 1. PUT ON GOGGLES, GLOVES & APRON. THEY MUST REMAIN ON FOR THE ENTIRE LAB.**
2. There are several teacher checks during this lab, make sure to get initials where needed.
3. Put the chicken wing on a paper towel in the dissecting tray. Do not take it out of the tray.
4. Use the scalpel to cut a small section at the tip of the upper part of the wing. The upper part of the wing has one bone, just like a human arm.



5. Use closed scissors to “tease” the skin from the muscle. Stick the scissor tip between the muscle and skin, pointing toward the skin and away from the muscle. Open the scissors to tear the skin from the muscle. You will see clear connective tissue. Pull the skin back gently. Use the scissors and forceps, to cut the skin and peel it away from the muscle below.
6. Work slowly and carefully with scissors and forceps until all skin is removed. Put the skin in the plastic bag.

Teacher Initials:

7. You will see a layer of fat right under the skin. The fat makes the skin greasy & hard to hold. Blot it dry with a paper towel.
8. Once the skin is pulled back, observe the wing carefully.
 - a. Observe the yellowish clumps of fat tissue - What do you think is the function of the layer of fat underneath skin?

b. Do you think humans have this fatty layer under their skins?

9. Observe bundles of pale, pink muscle tissue surrounding the bones.
10. Use a probe to find the **tendons** of the chicken wing. They are shiny, white tissue at the end of muscles. **Tendons connect muscle to bone.**
11. Remove a single muscle by cutting the tendons and peeling

the muscle away from the bone.

Teacher Initials:

- a. Which joint in your body corresponds to this joint in the chicken wing?

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12. Use a blunt probe to separate the individual muscles from each other without tearing them.
13. Straighten the chicken wing and hold it horizontally above the tray. Pull on each of the muscles and note the movement that each muscle causes. Turn the wing upside down and bend the joints. Pull on each muscle and note how the bones move

Teacher Initials:

14. Find as many tendons as possible in your chicken wing. Determine where each tendon connects to a bone

Teacher Initials:

15. Cut through the middle of a muscle that flexes (bends) the upper wing.

- a. What happens to the wing?
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16. Cut through the middle of a muscle that extends (straightens) the lower wing.

a. What happens to the wing?

17. Examine the joint between the upper wing and the lower wing and identify the ligaments.

Teacher Initials:

18. Bend and straighten the joint and observe how the bones fit together. The shiny, white covering of the joint surfaces is made of cartilage.

a. What is the purpose of the cartilage?

19. Other things to look for:

- a. Point of origin (the attached end of muscle that does not move a bone)
- b. Point of insertion (the attached end of muscle that moves a bone)
- c. Blood vessels (thin red lines running through the muscles)
- d. Nerve tissue (thin white thread that runs through the muscles)