Dissecting a Chicken Wing Lab Name _____
7th Grade PSI

Description:
Organs are structures that are made up of many types of tissues. In this lab, you will dissect a chicken wing to observe the different types of tissues present in a wing. There is a strong similarity between wings and mammal arms. You will become familiar with mammal arms as well.

You will be dissecting a whole chicken wing. These have three sections, an upper wing, forewing and hand. Chicken wings even have an "alula" or thumb.

Materials:
- Chicken wings (whole)
- Scissors
- Dissecting tray
- Disposable gloves

Safety: Most chicken carries bacteria called salmonella. Be careful to wash your hands thoroughly before and after the dissection. Clean your work surface and all items which touch the raw chicken.

Procedure:

1. External Anatomy: Compare the external structure of the wing with your arm. Bend, flex, and extend your arm, feeling the bones and muscles. Do the same with the wing. Record similarities and differences.

   _____

   _____

   _____

   _____

2. Examine the skin covering of the wing. Is it the same on all sides? Explain.

   _____

   _____

   _____

3. Use scissors to cut under the skin of the upper wing down to the first joint. Repeat on both sides.

4. Using your fingers, remove the skin. Pull gently, you may have to separate the skin from the muscles where connective tissue is present.

5. Observe the muscle of the upper wing. Pull on the lower muscle, what happens to the wing? Pull the upper muscle, what is the result? Can you find the tendon (whitish) where the muscle attaches to the bone?

   _____

   _____

6. Remove the rest of the skin, to expose the lower wing. Find the two muscle groups of the lower wing. What happens when you pull them?

   _____

7. Locate a tendon. They are shiny whitish at the end of a muscle.

8. Locate a ligament. Ligaments are shiny whitish at the end of a bone.

9. Locate cartilage. This is slippery white at the end of the bone.

10. You may find globs of yellowish tissue. This is fat.

11. What do tendons, ligaments, cartilage and fat all have in common? What kind of tissue are they?

    _____

12. Remove the muscles by cutting the tendons.

13. Observe the bones of the wing. Draw and label the bones.

14. Break a bone in half, look inside the bone. This is the marrow. If possible, look at a small amount under a microscope. Diagram what you see.

15. Clean up by throwing all parts into the trash, clean desk and all tools with soapy water. Don't forget to clean your pencil!

Analysis:

1. What is a tissue?
   _____
   _____
2. List at least 7 kinds of tissue you found in the chicken wing.
   _____
   _____
   _____
3. Compare tendons and ligaments. How are they similar? How are they different?
   _____
   _____
4. Compare a chicken wing with your arm. How are they similar? How are they different?
   _____
   _____
5. Which area of the wing was the most *different* from a human arm (upper, middle or lower sections). What does that imply about the functions of each?
   _____
   _____

Diagrams:

Key to Latin terms

- *Bi. = bisep*
- *Pector = pectorals*
- *Tri. = tricep*
- *Lig. = ligament*