**SECTION 10: FROG DISSECTION**

**LAB Westminster College**

# INTRODUCTION

Frog dissection is an excellent opportunity for students to learn about the location and appearance of organs and systems. It is important for students to have a good understanding of the body to benefit from dissecting frogs.

ORDER FROGS: Order 1 frog for every 3 students and 2 plastic gloves per student. Call Carolina Biological, 1-800-547-1733. Order 4 weeks in advance: Bullfrog (4 ½ - 5 1/2 )

During frog dissection students will locate:

1. Maxillary Teeth: used to grind food
2. Vomerine Teeth: part of the skull that protrudes through the roof of the mouth. It is used to grab and hold prey.
3. Eye: Frogs retract their eyes into the mouth cavity to help push food down the esophagus. Frogs eyes can only detect motion.
4. Optic Nerve: A bundle of 1 million fibers individually connected to the retina of the eye. It makes sight possible.
5. Tongue: rough texture to hold prey. It is attached to the front of the mouth, so it does not help swallowing. The frog can stretch it several inches to catch prey.
6. Brain: inside the skull. It looks like 2 small cream balls on a stem.
7. Esophagus: a muscular tube that transports food from the mouth to the stomach.
8. Carotid artery: Transports blood from the heart to the brain.
9. Pulmonary artery: Transports blood from the heart to the lungs.
10. Heart: 3 chambers (located under the liver) Pumps blood through the body.
11. Lung: found behind the heart. (deflated, brown, and bumpy) Collects oxygen that is transferred to the capillaries in the alveoli.
12. Gallbladder: stores bile and makes it more concentrated.
13. Liver: Cleans the blood and manufactures essential chemicals.
14. Stomach: a flexible bag that secretes acids and other digestive juices.
15. Bile Duct: transports bile from the gallbladder to the duodenum.
16. Pancreas: makes digestive juice that breaks down fats, proteins, and carbohydrates in the duodenum.
17. Spleen: stores dead red blood cells for removal from the body and manufactures new red blood cells in an emergency.
18. Small intestine: Food that has been liquefied in the stomach is broken down chemically into molecules that can pass through the walls of the small intestine.
19. Large intestine: separates water from digested food. Solid matter is then eliminated from the body.
20. Bladder: stores liquid waste.
21. Rectum: end of intestine
22. Anus: eliminates waste
23. Testes: cream colored oval organs on male kidneys.

 *Frog Dissection*

1. Ovaries and oviducts: produce and store eggs in a female.
2. Adrenal Glands: produce hormones essential for normal development and proper function of nervous system
3. Kidneys: filter out impurities and keep the blood salts steady, regulate blood pressure, make urine and transport it to bladder.
4. Kidney Duct: Carries urine to the bladder.

# ASSESSMENT ANCHORS ADDRESSED PURPOSE

Students will learn about the location and appearance of organs and systems through frog dissection.

# MATERIALS

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| **For each group:** |  |
| Small fingernail scissors | Tweezers |
| 20 pins | 2 large pieces of cardboard |
| 2 plastic gloves per student | 1 bullfrog |

*Teacher provides items marked with \**