

Student Name:

VR Zoology

Unit 6: Virtual Dissection and Report – Frog Edition

Virtual Lab Instructions for External Anatomy

After you locate and read the information about each organ, use the forceps to lift the organ, then cut it out using the scalpel.

UPDATED INSTRUCTIONS for the Virtual Lab Instructions for Internal Anatomy:

After you locate and read the information about each organ, use the forceps to lift the organ, then cut it out using the scalpel.

1. **Fat Bodies:** Start with the fat bodies. These "fingery" looking structures are usually underneath the stomach. Then continue to learn about the internal organs of the frog by clicking on the organs, reading the information, and removing each organ immediately to the organ tray.
2. **Liver:** Locate the liver (the large, dark, three-lobed organ).
3. **Stomach:** Locate the stomach - the largest of the digestive organs. It has a half-moon shape and is usually found on the left side of the body cavity.
4. **Intestines:** Locate the small and large intestines.
5. **Pancreas:** Locate the small pancreas. It is attached to the "curve" of the stomach, usually lying underneath it, and might look like a thin thread within the mesentery, the membranous tissue that connects the internal organs.
6. **Lungs:** Locate the two small dark pink lungs, which are on either side of the heart. They may appear spongy or floppy and deflated.
7. **Heart:** Locate the heart, usually near the top of the liver.
8. **Gall Bladder:** Locate the gall bladder in the back of where the lungs once were.
9. **Reproductive Organs:** If your frog is a mature female, locate the ovaries, which contain hundreds of darkly colored eggs. If your frog lacks these large egg bodies, look carefully for two small yellow bean-shaped organs. These are the testes, where the sperm is produced in the male.
10. **Spleen:** Locate the dark red spleen, also in the tissues of the mesentery.
11. **Kidneys:** Locate the two dark kidneys towards the back of the frog, surrounded by blood vessels.

Student Analysis Report (100 Points)

Each response that does NOT list steps or requires a numerical value should be in two (2) complete sentences or more. **Your responses should be based on what was covered in the unit and the dissection experience alone. All responses must be original and in your own words. Do not copy from the dissection directly, use peer documentation, AI, or external sources.**

QA Analysis (6 Points Each)

1. Which anatomy does a human have that a frog does not?
2. What do you think is the function of the nictitating membrane? Why?
3. A frog does not chew its food. What do the positions of its teeth suggest about how the frog uses them?
4. Think about the skin of the frog. A frog can respire through its skin, but a fish cannot. Why do you think this is so?
5. Write all of the steps you took during the internal anatomy dissection **Part 1**. This is considered the preparation of the Frog before internal organ exposure. (i.e. opening the frog from external to internal anatomy).
6. How many pins were used in **Part 1** of the dissection?
7. What is the function of the fat bodies?
8. Through which structures does food pass through a frog's digestive system?
9. The frog that is virtual frog that you are dissecting is considered which sex? How can you tell?
10. Through which structures does urine pass in a frog?
11. List which parts of a frog allow it to adapt in both water and land.
12. Explain why each part you've listed allows frogs to adapt in water and land.
13. What was the last organ left in the virtual frog, meaning it was not removed?

Completed Dissection Screenshot (22 Points)

14. Take a screenshot of the virtual frog's appearance after completing the dissection. You will have a message that shows "**You have completed the dissection!**". An image of the whole page with this message will confirm you've completed all required portions of this assignment.