

Carolina's Perfect Solution[®] Bullfrog Dissection

Carolina's Perfect Solution[®] bullfrog dissection introduces students to basic vertebrate anatomy. This activity allows students to identify the major external features of the bullfrog and gain a better understanding of vertebrate internal tissues, organs, and systems. The bullfrog is larger than the common grass frog, which allows students to examine anatomical structures more easily. The activity supports 3-dimensional learning and builds toward the following:

- NGSS Scientific and Engineering Practice: Developing and Using Models
- NGSS Core Idea: Life Science 1: From Molecules to Organisms: Structures and Processes; Life Science 4: Biological Evolution: Unity and Diversity

Materials Required

Carolina's Perfect Solution[®] Bullfrog (227104)
Adjustable Safety Glasses (646705)
Laboratory Aprons Value Pack (706245)
Nitrile Disposable Gloves (706335, 706336, 706337)
Disposable Tray
Scissors

Activity Procedure

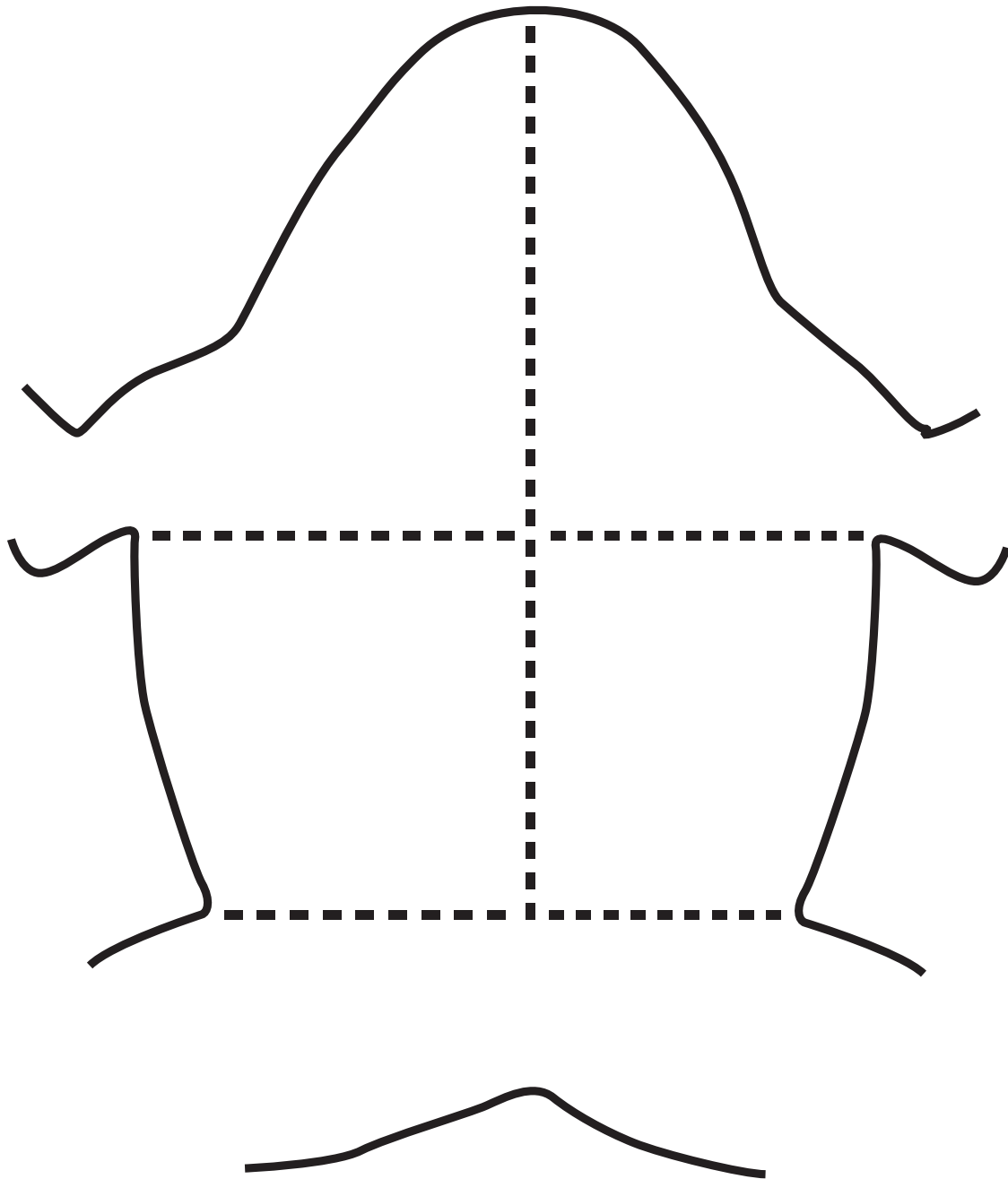
1. Obtain a Carolina's Perfect Solution[®] bullfrog and place it on a dissecting tray, dorsal surface up.
2. Observe the external anatomy of the bullfrog. Identify the different structures listed below:
 - a. Skin
 - b. Nose and eyes
 - c. Eardrums or tympanic membranes
 - d. Upper extremities
 - e. Lower extremities
 - f. Interior of the bullfrog's mouth
 - i. Tongue
 - ii. Vomerine teeth
 - iii. Maxillary teeth
3. Pinch the loose skin at the center of the bullfrog's stomach, and make an initial cut with the scissors into the skin.
4. Cut through the skin, following the pattern shown in the diagram. Follow the same pattern to cut through the muscle and reveal the internal organs.
5. Identify the following internal structures:

a. Liver	f. Spleen
b. Gallbladder	g. Heart
c. Stomach	h. Lungs
d. Small intestine	i. Fat bodies
e. Large intestine	

Safety

Have students wear safety glasses or goggles, gloves and lab aprons when dissecting.





Results/Summary

Students should gain a better understanding of vertebrate anatomy. Bullfrog dissection is an excellent activity for students to explore tissues, organs, and systems, and learn about vertebrate anatomy. Bullfrogs possess all the major organ systems of complex vertebrates. Challenge students to investigate similarities and differences between humans and frogs as they compare amphibians and mammals.

Additional Information

View more information, content links, and products related to this activity at www.carolina.com/takeaways.

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