

Carolina Quick Tips®

Carolina's Perfect Solution® Cow Eye Dissection

Carolina's Perfect Solution® cow eye dissection introduces students to the anatomy of the mammalian eye. This activity allows students to identify the major structures of the eye.

- **TEKS HS**

B.c.5.A: Relate the functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids, to the structure and function of a cell.

B.c.5.B: Compare and contrast prokaryotic and eukaryotic cells, including their complexity. Compare and contrast scientific explanations for cellular complexity.

- **TEKS MS**

7.b.13.B: Describe the hierarchical organization of cells, tissues, organs, and organ systems within plants and animals.

Materials Required

Carolina's Perfect Solution® Cow Eye (228903)

Adjustable Safety Glasses (646705)

Laboratory Aprons Value Pack (706245)

Nitrile Disposable Gloves (706335, 706336, 706337)

Disposable Tray

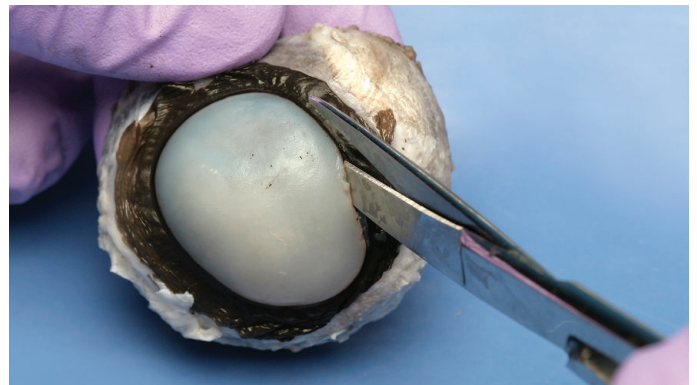
Scissors

Activity Procedure

1. Obtain a Carolina's Perfect Solution® cow eye and place it on a dissecting tray.
2. Trim away any excess tissue surrounding the eyeball and observe the external features of the eye. Identify the following structures: optic nerve, sclera, and cornea.
3. Hold the eye gently with your thumb and forefinger at the cornea and near the optic nerve.
4. Begin a cross section of the eye by making an incision slightly behind the middle of the eyeball through the sclera.
5. Once you have made a cut around the eyeball, separate the eye into halves.
6. Let the vitreous humor and any associated material slowly slide out of the eye. You may need to tease the vitreous humor gently away from the lining of the eye.

Safety

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



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7. Observe the inside front portion of the eye. Locate and remove the lens.
8. To remove the cornea, cut around the front of the eye where the cornea meets the sclera. Locate the iris. Carefully pull out the iris and lay it flat on the tray.
9. Identify the optic nerve, retina, and blind spot on the back of the eyeball.

Results/Summary

Students should identify the major structures of a mammalian eye. Exploring the cow eye can lead to further discussions concerning form and function, specialized tissue types, and the interdependence of organ systems.

Additional Information

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