



Plant Histology Lite

By Carolina Biological Supply

Category: Education

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Grade 8: Living Environment

CCLS: Since there is no Common Core learning standards adapted for secondary science, I will use the (NGSS) Next Generation Science Standards which may be adapted soon.

<http://www.nextgenscience.org/next-generation-science-standards>

NGSS: Students in high school develop understanding of key concepts that will help them make sense of life science. The ideas are built upon students' science understanding of disciplinary core ideas, science and engineering practices, and crosscutting concepts from earlier grades. There are four life science disciplinary core ideas in high school: 1) From Molecules to Organisms: Structures and Processes, 2) Ecosystems: Interactions, Energy, and Dynamics, 3) Heredity: Inheritance and Variation of Traits, 4) Biological Evolution: Unity and Diversity. The performance expectations for high school life science blend core ideas with scientific and engineering practices and crosscutting concepts to support students in developing useable knowledge that can be applied across the science disciplines. While the performance expectations in high school life science couple particular practices with specific disciplinary core ideas, instructional decisions

should include use of many practices underlying the performance expectations.

Website: **category:** education plant histology: Carolina Biological supply

Description: The Plant Histology app features images from Carolina's best microscope slides to highlight plant mitosis and meiosis and to compare monocots and dicots, which are also pictured macroscopically. Meiosis is shown in the lily anther and the ovulary. This reference app includes interactive practice sections and serves in quick review as well as initial learning. The Lite version is free and addresses only mitosis.

Incorporation explanation: The app is great for the unit on cells and cell growth and division. There are many ways you can use this app either before the unit is introduced or at the end as a form of review. The STUDY part has each phase of the cell cycle/mitosis with definitions and pictures, which is exactly what students need to identify for the NYSLS. The other part called PRACTICE is where various pictures are given of each phase of Mitosis and students would need to select the correct phase. This app is a great way for students who missed the lab on onion root tips to see the phases of mitosis quickly and easily.