

Unit #9 Plant Structure and Function

Content Area: **Science**
Course(s):
Time Period:
Length: **7 days**
Status: **Published**

State Mandated Topics Addressed in this Unit

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N/A	N/A

Plant Structure and Function

Learning Objectives

- Objective 1 - Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
- Objective 2 - Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy

Essential Skills

- Essential Skill 1 - Compare the structure of monocots and eudicots
- Essential Skill 10 - Describe the structure and function of fruit
- Essential Skill 11 - Describe and compare germination in bean and corn plants
- Essential Skill 12 - Describe 4 examples of cloning plants
- Essential Skill 13 - Describe plant adaptations that permit very long lives
- Essential Skill 2 - Compare the structures and functions of roots, stems, and leaves
- Essential Skill 3 - Distinguish between a taproot, petiole, and tendril, and indicate example of each.
- Essential Skill 4 - Define a tissue system
- Essential Skill 5 - Describe the 3 unique structures found in most plant cells, and describe structures of 5 major types of plant cells
- Essential Skill 6 - Distinguish between annuals, biennials, and perennials
- Essential Skill 7 - Describe and compare primary and secondary growth.
- Essential Skill 8 - Describe the parts of a flower and their functions
- Essential Skill 9 - Explain how a seed forms.

Standards

SCI.HS-LS1-5	Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.
SCI.HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

Instructional Tasks/Activities

- Inquiry based lab activity- Grow plant in lab groups – measuring growth rate and visible plant parts
- Conifer Life Cycle diagram: Students draw and label conifer life cycle
- Fern Life Cycle Diagram: Students draw and label fern life cycle
- Flower Worksheet: Students color and label parts of flower
- Foldables – organization of material
- Group discussion
- Grow your own plant lab.
- Life: Plants: Students watch Life: Plants video and summarize facts discussed in class as well as interesting new information introduced. Discuss as review.
- Moss life Cycle Diagram: Students draw and label moss life cycle diagram
- Plant Cell Worksheet: Students color and label organelles in a plant cell diagram.
- Plant Scavenger Hunt: Students, in groups, search school campus for plant items to demonstrate understanding of plant structure then arrange them on a poster and label each item. Teacher asks each student about function of each item displayed.
- PowerPoint presentation of material
- Review game
- Think, pair, share (read assigned section of text individually, discuss with a partner, present material in pairs to class – use PowerPoint as a reference)

Assessment Procedure

- Classroom Total Participation Technique
- Classwork
- DBQ
- Essay
- Exit Ticket/Entrance Ticket/Do Now
- Journal / Student Reflection
- Kahoot
- Other named in lesson
- Peer Review
- Performance
- Problem Correction
- Project

- Quiz
- Rubric
- Teacher Collected Data
- Test
- Worksheet

Recommended Technology Activities

- Appropriate Content Specific Online Resource
- Appropriate Content Specific Online Resource
- Copy/Paste Content Specific Link Here
- Copy/Paste Content Specific Link Here
- Copy/Paste Content Specific Link Here
- Gimkit
- GoGuardian
- Google Classroom
- Google Docs
- Google Slides
- Google Slides
- Kahoot
- MagicSchool AI
- Other- Specified in Lesson
- Quiziz
- Screencastify

Accommodations & Modifications & Differentiation

Accommodations and Modifications should be used to meet individual needs. Their IEP and 504 plans should be used in addition to the following suggestions.

Gifted and Talented

- Compare & Contrast
- Conferencing
- Debates
- Jigsaw
- Peer Partner Learning
- Problem Solving

- Structured Controversy
- Think, Pair, Share
- Tutorial Groups

Instruction/Materials

- alter format of materials (type/highlight, etc.)
- color code materials
- eliminate answers
- extended time
- extended time
- large print
- modified quiz
- modified test
- Modify Assignments as Needed
- Modify/Repeat/Model directions
- necessary assignments only
- Other (specify in plans)
- other- named in lesson
- provide assistance and cues for transitions
- provide daily assignment list
- read class materials orally
- reduce work load
- shorten assignments
- study guide/outline
- utilize multi-sensory modes to reinforce instruction

Environment

- alter physical room environment
- assign peer tutors/work buddies/note takers
- assign preferential seating
- individualized instruction/small group
- modify student schedule (Describe)
- other- please specify in plans
- provide desktop list/formula

Honors Modifications

Resources

- Resource 1
- Resource 2
- Resource 3
- Resource 4
- Resource 5