Unit 4 Transport of Essential Resources

Content Area: **Science**
Course(s): **Horticulture 1**
Time Period: **December**
Length: **8 Blocks**
Status: **Published**

Transfer Skills

At the end of this unit of instruction students will recognize the materials transported throughout plants and their functions in plants.

Enduring Understandings

Stems are the essential plant organs for the transport of water, nutrients and manufactured sugar.

Stem support the photosynthetic and reproductive organs of plants.

Essential Questions

What determines too much food for a plant?

How do plants (or botanists) determine the right size?

Content

Vocabulary:

Lenticles, bud scale scars, leaf scars, xylem, phloem, dicots, cambium, monocots, vascular bundles, bundle sheath

Objectives

Describe the internal and external structure and function of stems.

Compare and contrast the structure and function of xylem and phloem.

Examine the cross section of a tree and identify the growth rings.

Resources

Assessments

Project - Monitoring Plant transport

Observe and measure the groth of plant roots in various conditions.

Quiz - Transported substances and their function in Plants

Evaluate understanding of vocabulary and processes of plant root systems.

Quiz - transport practical

Observe and diagram root parts using microscopes.

Test - Major Assesment based on Unit 4 instruction and greenhouse progress.

Individual summative assessment to gauge student acheivement and understanding during Unit 4 instruction.

Resources

Text:

Introductory Horticulture 8th ed(Cengage Learning), Hardcover (2011)

by H Edward Reiley, Carroll L Shry

Greenhouse

Planting Materials including soil, water, seeds, Fertilizer.

Tree in Greenhouse