

Transportation System of a Tree

Subject(s): Industrial Arts

Grade Level: 9th - 12th

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Time Required: 10-14 days

Lesson Objectives: To demonstrate the intricate transportation system of a tree and the speed with which nutrients and water move.

Materials Needed: Christmas tree, water supply for tree (bucket with tree end in), food coloring (student choice), sugar in the water

Procedure:

Students keep a Christmas tree in water with sugar and food coloring during the holiday season. Then they bring portions of the tree in. The tree is cut in cross-sections to view the distance the color traveled in the tree. Also note color intensity.

Discussion:

What caused the nutrients to travel throughout the tree?

What biological forces cause the liquids to move throughout the tree?

Why is it important to be aware of and understand this process as a cabinetmaker?