

How A Tree Grows

Subject: Environmental Science and Service Learning

Grade levels 4 and 5

Time

Teachers are required to show proof of classroom work before going into the field. There will be a pre and post assessment. Classroom teaching time will be 4 to 4.5 hours, including the assessment time.

Pre-Assessment: 15 minutes

Parts of a Tree: 50 minutes for the first half and 20 minutes for the second half.

Photosynthesis: set up – 20 minutes; results, reading, and journal - 30 minutes. (This will take longer and require more guidance for 4th graders)

Tree density: 60 to 90 minutes

Discussions: putting it all together - 30 minutes

Post-Assessment: 15 minutes.

Teacher's guide readings will take 1 to 2 hours. There are links and resources in the guide that will help extend this into a more in-depth unit.

Objectives

Students will: (1) name the parts of a tree, (2) understand how different parts of a tree help the tree function, (3) review photosynthesis, and (4) understand the connection between tree density and carrying capacity.

Student inquiry question: How does the spacing of trees affect fire severity?