

Title of Lesson Plan	Forests, Young and Old
Prepared By (first and last name)	Stacie Phillips
City and State	Keizer, Oregon
Grade Level(s)	6-8 (6 & 7 grade Oregon standards addressed)
Keywords (subjects covered)	Interdependence, Succession
Brief Description	Students will learn about forest succession and discover how different stages of succession support different communities of plants and animals. They will analyze the variety of niches a forest provides and how all stages of forest growth are important to sustaining diversity of other plants and animals.
Total Time Required	Two preparatory classroom lessons, 50 min. ea One field trip Two follow-up classroom lessons, 50 min. ea
Setting	Classroom, field trip to a forested area that shows a contrast between young and old forests (burned, logged, replanted, volcanic eruption, or other cause)
Lesson Objectives/Goals	SWBAT recognize that forests have 'patches' of differing growth stage and identify causes both natural and man-made; SWBAT identify a variety of niches a forest provides; SWBAT evaluate the importance of all stages of forest growth for supporting diversity of plants and animals.
Materials Needed	Whitney, Stephen R., and Rob Sandelin. 2003. <i>Field Guide to the Cascades & Olympics, 2nd ed.</i> Seattle: The Mountaineers Books. Or other field guide if you live in another region. Field journals/notebooks
Standards Addressed	6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources. 7.2E.1 Describe and evaluate the environmental and societal effects of obtaining, using, and managing waste of renewable and non-renewable resources.
Procedure	This lesson is intended to be built into an ecology and interdependence of life curriculum Days 1-2: After the unit on ecology, give an overview of the field guide, focusing on 'How to Use this book section, p12. Show students the section on trees and focus on characteristics used to identify them, and how they are classified. Tell them that we will be taking a field trip to a local forest and they will be making notes in their field journal to identify the types of life they find in different parts of the forest. They will need to familiarize themselves with the identification techniques for a variety of life forms first, and prepare their field journals for the excursion. To do this, they will read the intro for each section and then create a data table for each (the intros are brief). Each data table should allow for a sketch, written observations of organism, and observations of the environment in which the organism was found (e.g. direct sun/shade, on ground/tree, etc.). You can narrow down the sections depending on age and/or time. Day 3: Take students on a field trip to a local forested area, preferably with areas of different growth (ex. Starker educational forest, or an area where logging/replanting has been done, or a recent fire has changed the forest in contrast to surrounding forested area). Assign students into groups of

	<p>2-3 and monitor and assist students as they make observations and identify a variety of organisms in the area. Be sure they include observations in sunlit and shady areas and they are making sufficient notes about the environment they are finding each organism. Encourage students to find a variety of organisms (e.g. plants, insects, birds, mushrooms, birds, mammals, amphibians, reptiles). Ask guiding questions, such as 'Do you seem to be finding this type of organism only in areas where there is a lot of sun?'</p> <p>Day 4-5: Back in the classroom, lead a discussion with the students as they share their observations. Guide the discussion to allow the students to identify relationships between the environment and the types of organisms living there. Help them identify a variety of niches that the forest provides other living things. How are these niches different in younger forests from older forests? What types of organisms are found only in one or the other? What types are found in each? Have them evaluate the value of diversity in our forests and how the forest landscape is changed by outside forces (fire, logging, etc.). Accept all opinions.</p> <p>Have students make a poster that shows the diversity of life in young vs. old forests. They can do this as a Venn diagram or on the front and back of poster paper. They should have a caption for each forest type that describes its environmental and biological characteristics.</p>
Assessment	Students will turn in their field notes with list of organisms identified, sketches, and written observations. They will also turn in their posters. A list of follow-up questions can also be provided to have students analyze their data.
Literature Cited/References	Whitney, Stephen R., and Rob Sandelin. 2003. <i>Field Guide to the Cascades & Olympics, 2nd ed.</i> Seattle: The Mountaineers Books.
Forestry Tour Attended	PNW 2009

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