



El Dorado County Career Technical Partnership

In Partnership: Folsom Lake College • El Dorado Union High School District • El Dorado County Office of Education

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Title: Managing the Forest-part 1		
Content Area: Science	Grade:7	Duration: 2 periods
Career Technical Industry Sector:	x	Agriculture and Natural Resources
		Hospitality, Tourism, and Recreation
Standards and Benchmarks:	<p>Science Standards Grade 7:</p> <p>7.1. d Students know that mitochondria liberate energy for the work that cells do and that chloroplasts capture sunlight energy for photosynthesis.</p> <p>7.2. a Students know the differences between the life cycles and reproduction methods of sexual and asexual organisms.</p> <p>7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.</p> <p>7.5. f Students know the structures and processes by which flowering plants generate pollen, ovules, seeds, and fruit.</p> <p>Forestry and Natural Resources Pathway:</p> <p>E2.6 Analyze the way in which water management affects the environment and human needs.</p> <p>E5.5 Understand a variety of management practices used to manage wildlife populations for hunting and other recreational purposes.</p> <p>E10.0 Students understand forest management practices. Standards E10.1 through E10.6</p>	
Objectives:	<ol style="list-style-type: none"> 1. Students will demonstrate an understanding of the purpose of a forest management plan, the different groups involved in carrying out a forest management plan and the areas of concern involved in the forest management plan. 2. Students will be able to discuss the difference between selection and even-aged harvesting. 	
Resources and Materials:	<p>Page 9/10 – We Care about Forest Management Practices Poster- Forest Management Practices (obtained from the Forest Foundation)Managing the Forest lesson plan</p> <p>Movie- Fern Gully</p> <p>Highlighters</p>	



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<p>Differentiation:</p>	<p>This lesson will be read and discussed as a class. During closure, GATE students will chose one of the federal or state laws that impact forests and report to the class some of the specifics of the law at a later time.</p> <p>Students requiring extra help will create a graphic organizer summarizing forest management. The poster is a visual the description of the types of harvesting methods. During the group review, students will be placed in groups with a variety of learning levels.</p>
<p>Preparing Students for the Lesson:</p> <ul style="list-style-type: none"> • Transitions • Expected Behaviors 	<ul style="list-style-type: none"> • Students are reminded that they need to have their books and writing utensils on their desk and need to be seated by the time the bell rings. • Students who are ready to learn by the time the bell rings are rewarded with a token on a random basis. • Students will be given a highlighter to help them focus on the key points of the lesson. • Students are reminded of appropriate behavior while watching a movie in class. • Students will be told that they will have to debate the pros and cons of forest management so they need to make sure they have an understanding of forest management practices.
<p>Teaching the Lesson (Lesson Sequence/ Activities):</p> <ul style="list-style-type: none"> • Motivation/ Anticipatory Set • Pre-Assessment/ Activating Background Knowledge • Teacher Input, Modeling, & Checking for Understanding • Guided Practice • Independent Practice 	<ul style="list-style-type: none"> • Reshow the portion of the movie, <u>Fern Gully</u> where the forest is being clear-cut. • Discuss students' reaction to the clear cutting method and how they relate the movie to real life. • Using a KWL chart, discuss what students know about managing a forest. Ask the students what they want to know about managing a forest. • Remind students that the next day, they will need to debate, in teams, the pros and cons of forest management. • On the board write the objectives of the lesson: Purpose of a forest management plan, who is involved in monitoring the plan and the areas of concern in the plan and the differences between selection and even-aged harvesting. • As a class read the Managing the Forest handout. Stop periodically and have students highlight the important information that answers the objectives. • After reading the handout, return to the KWL chart and ask students what they have learned about managing a forest from the handout. • As a class, review page 9/10 Forest Management Practices, stopping to highlight the information the answers the objectives. • Using the poster, review the harvesting methods, discussing the similarities and differences of each method. • Return to the KWL chart and add what the students have learned about forest management from page 9/10. Check to see if the W column on the KWL chart has been answered. • Discuss if students have a different reaction to the clear cutting section of the <u>Fern Gully</u> after learning about forest management. • Students will independently complete the review page of Managing the Forest. As students are completing the review, monitor and assist as necessary. • After 10 minutes, have students share answers. • Break the students into groups of 4 (these groups could be the debate groups for later), have students answer the lesson objectives on the board. • Have different members of the groups share the answers to the objectives.



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<ul style="list-style-type: none"> • Closure 	<ul style="list-style-type: none"> • For the remainder of the period, students may research any questions not answered in the W column, they may research federal and state laws impacting forests or may summarize how to manage a forest using a graphic organizer. Monitor and assist as necessary.
<p>Assessment:</p>	<p>Formative Assessment: Determine if students are demonstrating an understanding of forest management by the types of questions asked during the lesson, the responses to the L column of the KWL chart and conversations during the group discussion.</p> <p>Also use the answers to the review page and the groups' answers to the lesson objectives.</p> <p>Summative Assessment: The student's understanding will be demonstrated during the debate process that will occur the following day.</p>
<p>Notes & Reflections:</p>	

Externship Sites:	Sierra Pacific Industries	California Forest Foundation	
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