



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: Getting to Know Your Local National Forest		
Content Area: Life Science	Grade: 7	Duration: 1 day
Career Technical Industry Sector:	X	Agriculture and Natural Resources
		Hospitality, Tourism, and Recreation
Standards and Benchmarks:	<p>Science Content Standards for California Public Schools:</p> <p>Earth and Life History (Earth Sciences)</p> <p>4. Evidence from rocks allows us to understand the evolution of life on Earth. As a basis for understanding this concept:</p> <ul style="list-style-type: none"> a. Students know Earth processes today are similar to those that occurred in the past and slow geologic processes have large cumulative effects over long periods of time. <p>Investigation and Experimentation</p> <p>7. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:</p> <ul style="list-style-type: none"> a. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data. b. Use a variety of print and electronic resources (including the World Wide Web) to collect information and evidence as part of a research project. <p>Forestry and Natural Resources Pathway:</p> <p><i>E11.0 Students understand the basic concepts of measurement, surveying, and mapping:</i></p> <ul style="list-style-type: none"> E11.2 Use surveying equipment, including global positioning satellites, maps, and a compass to determine area, boundaries, and elevation differences. <p><i>E13.0 Students understand public and private land issues:</i></p> <ul style="list-style-type: none"> E13.2 Understand the differences between public land designations (e.g., State Park, National Forest, wilderness areas, wild and scenic areas). <p>SCANS Competency:</p>	



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	<p>Interpersonal: Works with others</p> <p><i>Participates as member of a team - contributes to group effort</i></p> <p>Information: Acquires and evaluates information</p> <p><i>Acquires and evaluates information</i></p> <p><i>Organizes and maintains information</i></p> <p><i>Interprets and communicates information</i></p>
<p>Objectives:</p>	<ul style="list-style-type: none"> • Students will become familiarized with their local national forest and the resources within it. • Students will be introduced to map reading and interpretation skills.
<p>Resources and Materials:</p>	<p>Student Resources/Materials:</p> <p>Copy of the forest visitor map for their local national forest (to be shared in groups)</p> <p>Ruler</p> <p>Pencil</p> <p>Calculator (optional)</p>
<p>Differentiation:</p>	<p>Higher Level Students:</p> <p>Have students assist others in the group with the map reading and calculations.</p> <p>Students can also model how to calculate area or elevation difference on the board (peer teaching).</p> <p>Lower Level Students:</p> <p>Calculators may be used to assist with math calculations.</p> <p>Group setting for peer assistance.</p>
<p>Preparing Students for the Lesson:</p> <ul style="list-style-type: none"> • Transitions • Expected Behaviors 	<p>Transitions:</p> <p>Discuss how maps will be distributed to each group and how they will be returned.</p> <p>Discuss how the group will use the map to gather information. Stress how important it is for each group member to help with finding the information and completing the calculations.</p> <p>Expected Student Behavior:</p> <p>Each group member must assist in the map survey and calculations. Each group</p>



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	<p>member work together with the group in a respectful manner to accomplish all tasks.</p>
<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 • Closure 	<p>Motivation/Anticipatory Set:</p> <p>I would ask students if they've been hiking or camping locally. I would solicit a few student stories to be shared. I would explain to students that most often, they were hiking or camping in national forest service lands. I would explain that today's goal is to familiarize students with our local national forest and all the wonderful resources it has to offer.</p> <p>Pre-Assessment/Activating Background Knowledge:</p> <p>Ask students if they have ever used a map, navigation or GPS device. Hand out the maps and orient the students to the map by pointing out a local town, highway, or other structure that most students are familiar with.</p> <p>Teacher Input, Modeling, and Checking for Understanding:</p> <p>Introduce the front and back of the map, and explain how to use the key.</p> <p>Model for students how to measure distance on the map using a key and ruler.</p> <p>Show students where on the map they can find elevation markers.</p> <p>As the groups are working, circulate to check for understanding and to ensure that each group member is participating in a positive manner.</p> <p>Guided Practice:</p> <p>The student worksheet (see attachment B), has many questions that are best answered in a group setting.</p> <p>Independent Practice:</p> <p>Student worksheet (see attachment B), also has questions that will be answered independently to check for understanding and higher-level thinking.</p>
<p>Assessment:</p>	<p>Informal Assessment:</p> <p>While the students are working, the teacher will monitor student progress, and check for understanding.</p> <p>Formal Assessment:</p> <p>The student worksheet (see attachment B) will be turned in for grading. If the teacher feels it to be appropriate, the information learned can be included on a unit or chapter exam.</p>
<p>Notes & Reflections:</p>	<p>The forest visitor maps for all national forests can be purchased from the National Forest Store (online) and many retail outlets for approximately \$10/ea. They are large</p>



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and as many as 5-6 students could share a single map.

The National Forest maps for California can also be downloaded for free at:

<http://www.fs.fed.us/r5/forestvisitormaps/>

Externship Sites:	Camino Nursery, Camino,CA 95709 (US Forest Service)		
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