

# Making Connections Lesson Plan Template

<b>Title</b>		
Biome Adventure Travel eBrochure		
<b>Grade Level</b>		
9-12		
<b>Primary Content Area</b>	Environmental Science	
Environmental Science		
<b>Overview</b>		
After participating in an introductory discussion, student groups will each research one of the major terrestrial biomes, major aquatic/marine ecosystem types, or a Louisiana bioregion/ecosystem and prepare an illustrated presentation		
<b>Lesson Duration</b>		
Two 90-minute class periods plus time for presentations		
<b>Louisiana Framework</b>		
<b>• Content Standards</b>		
Science as Inquiry and Science and the environment		
<b>• Benchmarks</b>		
SI-H-A3	using technology and mathematics to improve investigations and communications; (1, 2, 3)	
SE-H-A1	demonstrating an understanding of the functions of Earth's major ecological systems; (1, 2, 3, 4)	
SE-H-A5	describing the dynamic interactions between divisions of the biosphere; (1, 3, 4)	
SE-H-A7	comparing and contrasting the dynamic interaction within the biosphere; (1, 2, 4)	
SE-H-A8	analyzing evidence that plant and animal species have evolved physical, biochemical, and/or behavioral adaptations to their environments; (1, 2, 3, 4, 5)	
SE-H-B3	recognizing that population size and geographic and economic factors result in the inequitable distribution of the Earth's resources; (1, 2, 3, 4, 5)	
SE-H-B6	recognizing that sustainable development is a process of change in which resource use, investment direction, technological development, and institutional change meet society's present as well as future needs. (1, 2, 3, 4, 5)	
SE-H-D6	developing an awareness of personal responsibility as stewards of the local and global environment. (1, 2, 3, 4, 5)	
<b>• Grade-Level Expectations</b>		

<b>(GLEs)</b>	
	<p>SI-6: Use technology when appropriate to enhance laboratory investigations and presentations of findings (SI-H-A3)</p> <p>SE-1: Describe the abiotic and biotic factors that distinguish Earth’s major ecological systems (SE-H-A1)</p> <p>SE-2: Describe the characteristics of major biomes on Earth (SE-H-A1)</p> <p>SE-6: Analyze the consequences of changes in selected divisions of the biosphere (e.g., ozone depletion, global warming, acid rain) (SE-H-A5) (SE-H-A7)</p> <p>SE-9: Cite and explain examples of organisms’ adaptations to environmental pressures over time (SE-H-A8)</p> <p>SE-15: Identify the factors that cause the inequitable distribution of Earth’s resources (e.g., politics, economics, climate) (SE-H-B3)</p> <p>SE-18: Identify the factors that affect sustainable development (SE-H-B6)</p> <p>SE-27: Describe how accountability toward the environment affects sustainability (SE-H-D5)</p>
<b>Educational Technology Standards and LA7 Highly Recommended</b>	
<p>LA7</p> <ol style="list-style-type: none"> <li>1. Defining/Focusing</li> <li>2. Select Tools and Resources</li> <li>3. Extracting and recording</li> <li>4. Processing information</li> <li>5. Organizing information</li> <li>6. Presenting Findings</li> <li>7. Evaluating Efforts</li> </ol> <p>Educational Technology Standards</p> <ol style="list-style-type: none"> <li>1. Creativity and Innovation</li> <li>2. Communication and Collaboration</li> <li>3. Research and Information Fluency</li> <li>4. Critical Thinking, Problem Solving, and Decision Making</li> <li>5. Digital Citizenship</li> <li>6. Technology Operation and Concepts</li> </ol>	
<b>Objectives</b>	
	<ol style="list-style-type: none"> <li>1. Use technology to enhance presentations of research material</li> </ol>

<ol style="list-style-type: none"> <li>2. Describe the factors that distinguish Earth’s major ecological systems</li> <li>3. Identify the major plant and animal adaptation in various ecosystems</li> <li>4. Analyze the consequences of changes in selected divisions of the biosphere</li> <li>5. Identify human consequences on select ecosystems</li> <li>6. Describe how the climate, topography, and resources of an area likely affects the economics of humans residing there</li> </ol>	
<b>Lesson Materials and Technology Resources</b>	<ol style="list-style-type: none"> <li>A. <u>List</u> all materials and resources (exclusive of technology tools) that are</li> <li>B.</li> </ol>
<b>Lesson Materials:</b>	
Project information handout, project grading rubric, instruction sheet for Google Docs, website evaluation form, class presentation matrix from LCC Unit 2, Activity 4, and library books	
<b>Technology Resources included:</b>	
<b>Hardware: Computers</b>	
<b>Software: Website Evaluation Power Point, and Citing sources Power Point</b>	
<b>Web sites: Google Docs, various sites for research</b>	
<b>Prior Knowledge</b>	Describe, in narrative form, what the students should know and be able to do prior to this lesson. Include both content knowledge and technology skills.
Students should know the various characteristics of the earth’s major biomes, basic keyboarding and use of Power Point would be helpful but not necessary.	
<b>Instructional Procedures</b>	
<b>I. Introduction : Anticipatory Set</b>	
<ol style="list-style-type: none"> <li>1. Explain the concept of eco-tourism</li> <li>2. Where would you like to take a vacation and why?</li> </ol>	
<b>II. Teaching Activities : Guided Practice</b>	
<ol style="list-style-type: none"> <li>1. Handout project information sheet and go over project expectations with students</li> <li>2. Handout Google Doc instructions and lead students in setting up an account</li> <li>3. Discuss website evaluating using Power Point</li> <li>4. Handout grading rubric (second day)</li> <li>5. Discuss citing sources using Power Point</li> </ol>	
<b>III. Learning Activities : Independent Practice</b>	
<p>Day 1</p> <ol style="list-style-type: none"> <li>1. Students set up a Google Doc account</li> <li>2. Students locate 4 appropriate sources for project on internet or from books (library, textbook, etc.)</li> <li>3. Students create a bibliography within Google Docs</li> </ol> <p>Day 2</p> <ol style="list-style-type: none"> <li>4. Students research their project topic</li> <li>5. Students prepare a Google Docs Presentation for their project</li> </ol> <p>Day 3</p> <ol style="list-style-type: none"> <li>6. Students present their project to class</li> </ol>	
<b>IV. Closure</b>	

Following each group presentation to the class, students will summarize what they learned using the matrix from LLC Unit 2 Activity 4.	
<b>Assessment Procedures</b>	Identify and describe all assessment procedures used for identifying the degree to which students have achieved the objectives of the lesson, as well as progress toward the mastery of the GLEs selected. Assessment should be ongoing and should include both formal and informal opportunities. Assessment should inform instruction.
Informal – Observation by continuous monitoring of students while working and online through Google Docs Formal – Day 1 Bibliography will be turned in and graded, Final Project grade and Presentation Matrix grade	
<b>Accommodations/Modifications</b>	
Accommodations: small group instruction, extended time, peer tutoring,	
<b>Printable Materials (Upload Files)</b>	<ul style="list-style-type: none"> <li>• Upload in Google Docs all printable materials, presentations, teaching aids, and assessment items used in the lesson.</li> </ul>
<b>Explorations, Extensions, and Enrichment OPTIONAL</b>	Briefly list and describe activities/learning opportunities that might be used by individual students to expand the understanding of concepts or development of skills introduced in the lesson.
<b>Lesson Development Resources</b>	<p>List all resources used by the teacher to create this lesson. Resources could include books, journals, magazines, web sites, school/public library resources, outside experts, etc. Where appropriate, resources should be listed in APA style.</p> <p><i>TIP:</i> The following web tools are free and will help to format the citations for your resources: Learning Information Literacy Online (University of Hawaii) located at <a href="http://www.hawaii.edu/lilo/guest/using/cite/cite3a.php">http://www.hawaii.edu/lilo/guest/using/cite/cite3a.php</a> KnightCite Citation Creator (Calvin College) located at <a href="http://webapps.calvin.edu/knightcite/index.php">http://webapps.calvin.edu/knightcite/index.php</a> Enter the appropriate information, then copy and paste the citation into the Lesson Development Resources text box below.</p>

*Louisiana Comprehensive Curriculum.* Louisiana Department of Education.  
<http://www.louisianaschools.com/lde/saa/2108.html>. Oct. 26, 2010.

*Louisiana K-12 Educational Technology Standards.* Louisiana Department of Education.  
<http://www.doe.state.la.us/DOE/LCET/curric/cats.asp>. Oct. 26, 2010.