

## Curriculum Map

**Subject:** Environmental Issues

**Month:**

**Teacher:** Decker

<b>Content/Topic (Resources)</b>	<b>Skill</b>	<b>Standard</b>	<b>Assessment</b>
<p><b>1. Water Quality</b> Resources: Textbook-Holt Environmental Science, water quality test kits, water quality information from Scott County, Videos, PowerPoint notes, Field trips to area rivers and lakes, Lab equipment/microscopes, Macro-invertebrate identification guides</p> <p><b>2. National Parks</b> Resources: Textbook, PowerPoint notes, videos, internet research, articles on national park animal management</p> <p><b>3. Reduce, Reuse, Recycle</b> Resources: Textbook, internet resources, Yucca mt. video, recycled paper kit</p>	<p>STUDENTS WILL:</p> <p>1A. Be able to test and evaluate the quality of water in local streams, lakes, rivers.</p> <p>1B. Be able to classify lakes based on their water quality</p> <p>1C. Be able to identify macro-invertebrates and classify which type of water quality they are found in.</p> <p>1D. Describe the difference between point and non point water pollution, their sources, and their solutions</p> <p>1E. Evaluate historic oil spills, why they happened, how they were cleaned up and how they can be prevented</p> <p>2A. Create a national park research project, detailing history, park information, user information, and issues involving national parks</p> <p>2B. Debate the merits of human use of national parks and discuss</p>	<p>1. <u>Life Science</u></p> <p>2. <b>Flow of Matter and Energy</b></p> <p>3. Students will describe and explain the cycling of matter and flow of energy through an ecosystems living and non-living components</p> <p>Strand: 1&amp;5</p> <p>4. <u>History and Nature of Science</u></p> <p>5. <b>Scientific Inquiry</b></p> <p>6. Student will design and conduct a scientific experiment</p> <p>Strand: 1&amp;3</p> <p><u>Earth and space Science</u></p> <p><b>The water cycle, weather, and climate</b></p> <p>Students will explain the causes and effects of the earth's atmospheric and hydrologic processes</p> <p>Strand 1,2, 4, 5</p>	<p>1A. Water sample chemical tests</p> <p>1B. Macro-invertebrate identification</p> <p>1C. Unit Test</p> <p>1D. HW from book</p> <p>2A. National Park research project</p> <p>2B. Quiz and Midterm</p> <p>2C. Graded discussion on national park purpose</p> <p>2D. HW from book</p> <p>3A. Quiz on Yucca Mt.</p> <p>3B. Recycling Interview project</p> <p>3C. Recycled paper activity</p> <p>3D. HW from book</p>

<p><b>4. Endangered Species</b> Resources: Textbook, Deep Jungle DVD, Poaching PowerPoint, PETA hunting article, internet resources, Great Bear rainforest video.</p> <p><b>5. Energy/Global warming</b> Resources: Textbook, national geographic articles, internet resources, Steele-Waseca field trip to energy plants, wind farm, and ethanol plant</p>	<p>the true mission for parks.</p> <p>3A. Identify ways we can reduce, reuse and recycle more in our lives 3B. Research the history of recycling in their family and discuss how it has evolved 3C. Create recycled paper 3D. Investigate the nature of consumer packaging, the cost effectiveness of generic products, and ways to reduce waste from food/groceries 3E. Debate the future of garbage storage in America, including hazardous waste to be stored in Yucca Mt. Nevada</p> <p>4A. Learn about poaching through an interactive PowerPoint 4B. Debate the merits of Hunting and whether it is necessary in our society 4C. Learn about rainforests around the world and the endangered species they protect through Deep Jungle DVDs. 4D. Create a PowerPoint project on a chosen endangered species 4E. Teach others in the class about an endangered species of their choice</p>	<p><u>Life Science</u> <b>Interdependence of Life</b> Students will describe how the environment and interactions between organisms can affect the number of species and diversity of species in an ecosystem Strand 1,4</p> <p><u>Earth and Space Science</u> <b>Earth Structure and Processes</b> 1. The student will understand that the interactions of the atmosphere, biosphere, lithosphere, hydrosphere and space have resulted in ongoing change of the earth system over time Strand 1 &amp; 3</p>	<p>4A. Endangered species PowerPoint project 4B. Graded discussion on ethics of hunting 4C. Endangered species jigsaw activity 4D. Deep jungle worksheets 4E. Chapter quiz 4F. HW from book</p> <p>5A. Hybrid car activity 5B. Alternative energy jigsaw 5C. HW from book 5D. Final Exam</p>
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	<p>5A. Research an alternative energy source and present their findings to the class</p> <p>5B. Discuss the oil situation in ANWR</p> <p>5C. Investigate hybrid cars, how efficient they are, their price, and their acceptance into the mainstream</p> <p>5D. Learn about the causes, dangers, and possible solutions to Global Warming through notes, video, and articles</p> <p>5E. Explore actual energy plants, including electrical, ethanol, and wind in a field trip with Steele Waseca Co.</p>	<ol style="list-style-type: none"> <li>1. <u>History and Nature of Science</u></li> <li>2. <b>Scientific Enterprise</b></li> </ol> <p>Students will understand the relationship between science and technology and how both are used</p> <p>Strand: 4 &amp;5</p> <ol style="list-style-type: none"> <li>2. <b>Historic Perspectives</b></li> <li>3. Students will recognize the historical and cultural context of scientific endeavors and how they influence each other</li> </ol> <p>Strand 1 &amp;2</p>	
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