

Interactions and Ecosystems Review

<p>How do human activities affect ecosystems? What methods can we use to observe and monitor change in ecosystems? How can we assess the impacts of our actions?</p>			
<p>Key Concepts (Unit At A Glance p. 84)</p>	<p>Science Focus 7 Guiding Questions and Activities to Help you Study</p>		
<p>Topic 1 Interactions Within an Ecosystem</p>	<ul style="list-style-type: none"> - What is the Science of <i>Ecology</i>? (p. 6) - Describe the work an <i>ecologist</i> would do. (p. 6-7) - Describe the <i>basic needs</i> of all living organisms. (p. 8) - Explain what an <i>adaptation</i> is and provide examples of how organisms '<i>adapt</i>' to their environments. (p. 10-11) - Describe the <i>interdependent relationships</i> of organisms within a particular ecosystem. (p. 14-15) - What impact do certain organisms have on their environment (give specific examples) (p. 16) 		
<p>Topic 2 Human Impacts on Ecosystems</p>	<ul style="list-style-type: none"> - What are natural resources and how do humans use them? (p. 18-19) - How have the interactions that people have within an environment <i>changed over time</i> ? (p. 20-21) - How do human <i>needs and wants</i> impact natural environments? (p. 22-23) - Can we <i>predict what impacts</i> humans have within an ecosystem? (p. 24-25) - How can natural disasters impact the environment? 		
<p>Topic 3 Environmental Choices</p>	<ul style="list-style-type: none"> - What is an <i>ecological footprint</i> and how is it calculated? (p. 29-31) - How can our understanding and knowledge of Science and Technology enable us to how we affect our environment? (p. 30-31) - How can this assessment then be used to <i>reduce</i> our impact? (p. 33, 35) 		
<p>Topic 4 How Organisms Interact</p>	<ul style="list-style-type: none"> - Explain the difference between <i>biotic</i> and <i>abiotic</i> parts of the environment. (p. 38) - What is a <i>niche</i>? (p. 38) - Describe different <i>niches</i> within a particular environment. (p. 40) - Explain the difference between a <i>food chain</i> and a <i>food web</i>. (p. 42-43) - Explain how the <i>pyramid of numbers</i> can demonstrate the health of an ecosystem. (p. 43) - Describe the roles of the <i>scavengers and decomposers</i>. (p. 44-45) 		
<p>Topic 5 Cycles in the Environment</p>	<ul style="list-style-type: none"> - Describe the <i>Energy cycle</i>. (p. 42) - Describe the <i>Carbon cycle</i>. (p. 49) - Describe the <i>Water cycle</i>. (p. 51) - Define <i>pollution</i> and give specific examples. (p. 52) - What is <i>bioaccumulation</i> (also called, <i>biomagnification</i>) and what effect does it have within the food chain?. (p. 53-54) 		
<p>Topic 6 Succession and Change in Ecosystems</p>	<ul style="list-style-type: none"> - Describe <i>primary succession</i> and <i>secondary succession</i>. (p. 56-57) - How well do organisms <i>adapt</i> to human invasion in an ecosystem? (p. 60) - Describe different ways that <i>pests</i> can be controlled in an ecosystem. (p. 61-62) - What impact can the introduction of <i>exotic species</i>, by humans, have on an ecosystem? (p. 62-63) - Describe the difference between <i>extinction</i> and <i>extirpation</i>? (p. 64) - What are the main reasons why a species could be <i>at risk</i>? (p. 64) 		
<p>Topic 6 Environmental Monitoring</p>	<ul style="list-style-type: none"> - What are some of the techniques used to check (<i>monitor</i>) the condition of an environment? (p. 68-70) - What is an <i>environmental impact assessment</i>? (p.74, 78) 		
<p style="text-align: center;">Design a Concept Map linking the ideas introduced and reinforced in this Unit on Interactions and Ecosystems.</p>			
<p>Try some of the Practice Quizzes to see how much you have recalled from this Unit</p>			
<p style="text-align: center;">These Internet links may help you find out more information about the key concepts from this Unit.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> interactions and interdependencies environmental monitoring environmental impacts producers, consumers, decomposers nutrient cycles and energy flow </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> species distribution succession endangered species extinction environmental management </td> </tr> </table>		<ul style="list-style-type: none"> interactions and interdependencies environmental monitoring environmental impacts producers, consumers, decomposers nutrient cycles and energy flow 	<ul style="list-style-type: none"> species distribution succession endangered species extinction environmental management
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