

**Children of Indiana Nature Park: Nature Works Everywhere Curriculum**

| Lesson Plans with Videos                 | Indiana Science Standards 2010  | Indiana Content Area Literacy Standards  | Indiana Social Studies Standards  |
|--|---|--|---|
| Bee Detective                            | 6.3.2 Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.   | 6.8.LST.2.1: Cite specific textual evidence to support analysis of science and technical texts   |   |
|  | 8.3.5 Identify and describe the difference between inherited traits and the physical and behavioral traits that are acquired or learned.  | 6.8.LST.2.2: Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.  |   |
|  | 8.3.7 Recognize and explain that small genetic differences between parents and offspring can accumulate in successive generations so that descendants may be different from their ancestors.  | 6.8.LST.7.2: Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. |   |
|  | 8.3.8 Examine traits of individuals within a population of organisms that may give them an advantage in survival and reproduction in given environments or when the environments change   | 6.8.LST.7.3: Draw evidence from informational texts to support analysis, reflection, and research.   |   |
|  | 8.3.9 Describe the effect of environmental changes on populations of organisms when their adaptive characteristics put them at a disadvantage for survival. Describe how extinction of a species can ultimately result from a disadvantage. | 6.8.LST.6.2: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.  |   |
|  | 8.3.10 Recognize and describe how new varieties of organisms have come about from selective breeding.   |  |   |
| The Value of Ecotourism                  | 8.2.6 Identify, explain and discuss some effects human activities (e.g., air, soil, light, and noise and water pollution) have on the biosphere.  | 6-8.LH.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.   | 7.3.7 Describe the limitations that climate and land forms place on land or people in regions of Africa, Asia and the Southwest Pacific.  |
|  |   | 6-8.LH.4.1: Integrate visual information (e.g., charts, graphs, photographs, videos, or maps) with other information in print and digital texts.   | 7.3.8 Identify current trends and patterns of rural and urban population distribution in selected countries of Africa, Asia and the Southwest Pacific and analyze the causes for these patterns.<br><b>Example:</b> Life expectancy, income, literacy rate, industry, education, natural resources, and climate |
|  |   | 6-8.LH.7.1: Conduct short research assignments and tasks to answer a question (including a self-generated  | 7.3.10 Analyze current issues and developments related to the environment in selected countries in Africa, Asia and the Southwest Pacific.  |
| Farming the Desert: Science of the Sahel | 6.3.2 Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals  | 6-8.LST.2.1: Cite specific textual evidence to support analysis of science and technical texts.  |   |
|  | 8.3.9 Describe the effect of environmental changes on populations of organisms when their adaptive characteristics put  | 6.8.LST.2.2: Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.  |   |

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|  | <p>them at a disadvantage for survival. Describe how extinction of a species can ultimately result from a disadvantage.</p> <p><b>B.8.5</b> Describe how organisms with beneficial traits are more likely to survive, reproduce, and pass on their genetic information due to genetic variations, environmental forces and reproductive pressures.</p>   | <p><b>6.8.LST.3.3:</b> Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.</p> <p><b>9-10.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p><b>9-10.LST.2.2:</b> Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p><b>9-10.LST.3.3:</b> Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.</p> |                                  |
| <p align="center"><b>Farming the Desert: Geography of the Sahel*</b></p> | <p><b>6.3.2</b> Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p> <p><b>8.3.9</b> Describe the effect of environmental changes on populations of organisms when their adaptive characteristics put them at a disadvantage for survival. Describe how extinction of a species can ultimately result from a disadvantage.</p> <p><b>B.8.5</b> Describe how organisms with beneficial traits are more likely to survive, reproduce, and pass on their genetic information due to genetic variations, environmental forces and reproductive pressures.</p> | <p><b>6-8.LST.4.3:</b> Compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic.</p> <p><b>9-10.LST.4.3</b> Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts</p>  |                                  |
| <p align="center"><b>Fighting Fire with Fire</b></p>                     | <p><b>6.3.2</b> Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p> <p><b>6.3.3</b> Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.</p> <p><b>B.4.2</b> Describe how human activities and natural phenomena can change the flow and of matter and energy in an ecosystem and how those changes impact other species.</p>  |   |                                  |
| <p align="center"><b>Fishing for a Future</b></p>                        | <p><b>B.4.1</b> Explain that the amount of life environments can support is limited by the available energy, water, oxygen and minerals and by the ability of ecosystems to recycle the remains of dead organisms.</p> <p><b>B.4.2</b> Describe how human activities and natural phenomena can change the flow and of matter and energy in an ecosystem and how those changes impact other species.</p>  | <p><b>11-12.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p><b>11.12.LST.2.2:</b> Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p>  |                                  |

\*"Farming the Desert: Geography of the Sahel" and "How Nature Works in Coastal Peru..." lesson plans both meet National Academic Standards for Geography

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|  | <p><b>B.4.3</b> Describe the consequences of introducing non-native species into an ecosystem and identify the impact it may have on that ecosystem.</p> <p><b>B.8.5</b> Describe how organisms with beneficial traits are more likely to survive, reproduce, and pass on their genetic information due to genetic variations, environmental forces and reproductive pressures.</p>      | <p><b>11.12.LST.3.3:</b> Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.</p>   |                                  |
| <p align="center"><b>How Dirt Works</b></p>  | <p><b>5.3.2</b> Investigate the action of different decomposers and compare their role in an ecosystem with that of producers and consumers.</p>   | <p><b>6-8.LST.2.3:</b> Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.</p> <p><b>6-8.LST.4.1:</b> Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).</p> <p><b>6-8.LST.5.2:</b> Write informative texts, including scientific procedures/experiments or technical processes that include precise descriptions and conclusions drawn from data and research.</p>   |                                  |
| <p align="center"><b>How Natural Areas Filter Water</b></p>  | <p><b>6.3.2</b> Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p>  | <p><b>6-8.LST.2.3:</b> Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.</p> <p><b>6-8.LST.5.2</b> Write informative texts, including scientific procedures/experiments or technical processes that include precise descriptions and conclusions drawn from data and research.</p> <p><b>6-8.LST.7.1:</b> Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.</p> <p><b>6-8.LST.7.2:</b> Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation (e.g., APA or CSE).</p> <p><b>6-8.LST.7.3:</b> Draw evidence from informational texts to support analysis, reflection, and research.</p> |                                  |
| <p align="center"><b>Living with Sumatran Elephants</b></p>  | <p><b>6.3.1</b> Describe specific relationships (i.e., predator and prey, consumer and producer, and parasite and host) between organisms and determine whether these relationships are competitive or mutually beneficial.</p> <p><b>B.4.3</b> Describe the consequences of introducing non-native species into an ecosystem and identify the impact it may have on that ecosystem.</p> |  |                                  |
| <p align="center"><b>Ecosystem Interdependence: Managing Salmon to support healthy forests</b></p> | <p><b>6.3.3</b> Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.</p> <p><b>8.3.9</b> Describe the effect of environmental changes on populations of organisms when their adaptive characteristics put</p>                          | <p><b>6-8.LST.2.3:</b> Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.</p>   |                                  |

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|   | <p>them at a disadvantage for survival. Describe how extinction of a species can ultimately result from a disadvantage.</p> <p><b>B.4.2</b> Describe how human activities and natural phenomena can change the flow and of matter and energy in an ecosystem and how those changes impact other species.</p> <p><b>B.4.4</b> Describe how climate, the pattern of matter and energy flow, the birth and death of new organisms, and the interaction between those organisms contribute to the long-term stability of an ecosystem.</p>  | <p><b>6-8.LST.5.2:</b> Write informative texts, including scientific procedures/experiments or technical processes that include precise descriptions and conclusions drawn from data and research.</p>  |                                  |
| <b>Population Management</b>            | <p><b>6.3.2</b> Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p> <p><b>6.3.3</b> Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.</p> <p><b>6.3.5</b> Describe how all animals, including humans, meet their energy needs by consuming other organisms, breaking down their structures, and using the materials to grow and function.</p> <p><b>B.4.1</b> Explain that the amount of life environments can support is limited by the available energy, water, oxygen and minerals and by the ability of ecosystems to recycle the remains of dead organisms.</p> <p><b>B.4.4</b> Describe how climate, the pattern of matter and energy flow, the birth and death of new organisms, and the interaction between those organisms contribute to the long-term stability of an ecosystem.</p> |   |                                  |
| <b>Reforestation: Impact on Climate</b> | <p><b>8.2.1</b> Recognize and demonstrate how the sun’s energy drives convection in the atmosphere and in bodies of water, which results in ocean currents and weather patterns.</p> <p><b>B.3.1</b> Describe how some organisms capture the sun’s energy through the process of photosynthesis by converting carbon dioxide and water into high-energy compounds and releasing oxygen.</p> <p><b>B.3.4</b> Describe how matter cycles through an ecosystem by way of food chains and food webs and how organisms convert that matter into a variety of organic molecules to be used in part in their own cellular structures.</p>  | <p><b>6-8.LST.6.1:</b> Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance from peers and adults.</p>   |                                  |
| <b>Renewable Energy</b>                 | <p><b>8.2.7</b> Recognize that some of Earth’s resources are finite and describe how recycling, reducing consumption and the development of alternatives can reduce the rate of their depletion.</p> <p><b>8.2.8</b> Explain that human activities, beginning with the earliest herding and agricultural activities, have drastically changed the environment and have affected the capacity of the environment</p>   | <p><b>6-8.LST.3.1:</b> Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6-8 texts and topics</i>.</p> <p><b>6.8.LST.4.1:</b> Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).</p> |                                  |

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|   | to support native species. Explain current efforts to reduce and eliminate these impacts and encourage sustainability.   | <p><b>6-8.LST.5.1:</b> Write arguments focused on discipline-specific content.</p> <p><b>6-8.LST.6.2:</b> Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.</p>  |                                  |
| Seeing the wood for the trees                                 | <p><b>8.2.7</b> Recognize that some of Earth’s resources are finite and describe how recycling, reducing consumption and the development of alternatives can reduce the rate of their depletion.</p> <p><b>8.2.8</b> Explain that human activities, beginning with the earliest herding and agricultural activities, have drastically changed the environment and have affected the capacity of the environment to support native species. Explain current efforts to reduce and eliminate these impacts and encourage sustainability.</p> |  |                                  |
| Sharks and Shorelines   | <p><b>6.3.3</b> Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.</p> <p><b>6.3.1</b> Describe specific relationships (i.e., predator and prey, consumer and producer, and parasite and host) between organisms and determine whether these relationships are competitive or mutually beneficial.</p>   |  |                                  |
| Sustainable Cities: Nature Based Solutions in Urban Design    | <p><b>8.2.7</b> Recognize that some of Earth’s resources are finite and describe how recycling, reducing consumption and the development of alternatives can reduce the rate of their depletion.</p> <p><b>8.2.8</b> Explain that human activities, beginning with the earliest herding and agricultural activities, have drastically changed the environment and have affected the capacity of the environment to support native species. Explain current efforts to reduce and eliminate these impacts and encourage sustainability.</p> | <p><b>9-10.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p><b>9-10.LST.2.2:</b> Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</p> <p><b>11-12.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p> <p><b>11-12.LST.2.2:</b> Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</p> |                                  |
| The Need is Mutual: The Importance of Biological Interactions | <p><b>6.3.2</b> Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p>  | <p><b>6-8.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts.</p> <p><b>6-8.LST.5.1:</b> Write arguments focused on discipline-specific content.</p> <p><b>6-8.LST.6.1:</b> Plan and develop; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.</p>  |                                  |
| Understanding Climate Change and the Role of                  |  | <p><b>9-10.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p>   |                                  |

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| <p align="center"><b>Nature in Creating Resilience</b></p>   | <p><b>B.4.2</b> Describe how human activities and natural phenomena can change the flow and of matter and energy in an ecosystem and how those changes impact other species.</p>  | <p><b>9-10.LST.2.3:</b> Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.</p>                          |                                  |
|  |   | <p><b>9-10.LST.4.1:</b> Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.</p> |                                  |
|  |   | <p><b>9-10.LST.4.2:</b> Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.</p>  |                                  |
|  |   | <p><b>9-10.LST.4.3:</b> Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.</p>                       |                                  |
|  |   | <p><b>11-12.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</p>                              |                                  |
|  |   | <p><b>11-12.LST.2.3:</b> Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</p>                       |                                  |
|  |   | <p><b>11-12.LST.4.2</b> Evaluate the hypothesis, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.</p>                |                                  |
| <p align="center"><b>Urban Trees</b></p>                     | <p><b>8.2.7</b> Recognize that some of Earth's resources are finite and describe how recycling, reducing consumption and the development of alternatives can reduce the rate of their depletion.</p>                            | <p><b>6-8.LST.3.1:</b> Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.</p>                          |                                  |
|  | <p><b>B.4.2</b> Describe how human activities and natural phenomena can change the flow and of matter and energy in an ecosystem and how those changes impact other species.</p>  | <p><b>6-8.LST.2.3:</b> Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.</p>   |                                  |
|  | <p><b>B.4.3</b> Describe the consequences of introducing non-native species into an ecosystem and identify the impact it may have on that ecosystem.</p>  |  |                                  |
| <p align="center"><b>Vultures: India's Clean-up Crew</b></p> | <p><b>6.3.1</b> Describe specific relationships (i.e., predator and prey, consumer and producer, and parasite and host) between organisms and determine whether these relationships are competitive or mutually beneficial.</p> | <p><b>6-8.LST.2.1:</b> Cite specific textual evidence to support analysis of science and technical texts.</p>  |                                  |
|  |   | <p><b>6-8.LST.2.2:</b> Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.</p>  |                                  |
|  |   | <p><b>6-8.LST.3.2:</b> Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.</p>   |                                  |
|  |   | <p><b>6-8.LST.3.3:</b> Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.</p>  |                                  |

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|                          |  | 6-8.LST.4.2: Distinguish among facts, reasoned judgment based on research findings, and speculation in a text. |                                  |
| Where is the Beach?      | 7.2.6 Describe physical and chemical characteristics of soil layers and how they are influenced by the process of soil formation (including the action of bacteria, fungi, insects and other organisms).   |  |                                  |
| Wolves of Yellowstone    | <p>6.3.3 Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.</p> <p>6.3.1 Describe specific relationships (i.e., predator and prey, consumer and producer, and parasite and host) between organisms and determine whether these relationships are competitive or mutually beneficial.</p> <p>6.3.2 Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p> <p>B.4.4 Describe how climate, the pattern of matter and energy flow, the birth and death of new organisms, and the interaction between those organisms contribute to the long-term stability of an ecosystem.</p> <p>B.8.5 Describe how organisms with beneficial traits are more likely to survive, reproduce, and pass on their genetic information due to genetic variations, environmental forces and reproductive pressures.</p> <p>B.4.3 Describe the consequences of introducing non-native species into an ecosystem and identify the impact it may have on that ecosystem.</p> <p>B.4.4 Describe how climate, the pattern of matter and energy flow, the birth and death of new organisms, and the interaction between those organisms contribute to the long-term stability of an ecosystem.</p> <p>B.4.2 Describe how human activities and natural phenomena can change the flow and of matter and energy in an ecosystem and how those changes impact other species.</p> <p>B.8.5 Describe how organisms with beneficial traits are more likely to survive, reproduce, and pass on their genetic information due to genetic variations, environmental forces and reproductive pressures.</p> <p>6.3.1 Describe specific relationships (i.e., predator and prey, consumer and producer, and parasite and host) between organisms and determine whether these relationships are competitive or mutually beneficial.</p> |  |                                  |

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|                                 | <p><b>8.3.7</b> Recognize and explain that small genetic differences between parents and offspring can accumulate in successive generations so that descendants may be different from their ancestors.</p> |  |   |

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| Virtual Field Trips  | Indiana Science Standards 2010  | Indiana Content Area Literacy Standards | Indiana Social Studies Standards   |
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| <p><b>China’s Great Forests: What the Giant Panda and Earth’s Climate Share Virtual Field Trip</b></p> | <p><b>4.3.4</b> Describe a way that a given plant or animal might adapt to a change arising from a human or non-human impact on its environment.</p>  |   | <p><b>7.3.4</b> Identify major physical characteristics of regions of Africa, Asia, and the Southwest Pacific, such as deserts, basins, plains, mountains, and rivers, and describe their formation</p>                                  |
|  | <p><b>5.3.2</b> Investigate the action of different decomposers and compare their role in an ecosystem with that of producers and consumers.</p>  |   | <p><b>7.3.5</b> Describe ecosystems of Africa’s deserts, Asia’s mountain regions, and the coral reefs of Australia and use multiple information resources to discover environmental concerns that these ecosystems are facing today.</p> |
|  | <p><b>6.3.4</b> Recognize that plants use energy from the sun to make sugar (i.e., glucose) by the process of photosynthesis.</p>   |   | <p><b>7.3.6</b> Compare and contrast the distribution of natural resources in Africa, Asia and the Southwest Pacific; describe how natural resource distribution can impact the wealth of a country.</p>                                 |
|  | <p><b>8.2.7</b> Recognize that some of Earth’s resources are finite and describe how recycling, reducing consumption and the development of alternatives can reduce the rate of their depletion.</p>  |   |  |
| <p><b>Coral Reefs Virtual Field Trip</b></p>   | <p><b>1.3.2</b> Observe organisms closely over a period of time in different habitats such as terrariums, aquariums, lawns and trees. Draw and write about observations.</p>  |   | <p><b>7.3.4</b> Identify major physical characteristics of regions of Africa, Asia, and the Southwest Pacific, such as deserts, basins, plains, mountains, and rivers, and describe their formation</p>                                  |
|  | <p><b>1.3.3</b> Observe and explain that plants and animals have basic needs for growth and survival: plants need to take in water and need light, and animals need to take in water and food and have a way to dispose of waste.</p>                     |   | <p><b>7.3.5</b> Describe ecosystems of Africa’s deserts, Asia’s mountain regions, and the coral reefs of Australia and use multiple information resources to discover environmental concerns that these ecosystems are facing today.</p> |
|  | <p><b>4.3.4</b> Describe a way that a given plant or animal might adapt to a change arising from a human or non-human impact on its environment.</p>  |   | <p><b>7.3.7</b> Describe the limitations that climate and land forms place on land or people in regions of Africa, Asia and the Southwest Pacific</p>  |
|  | <p><b>6.3.3</b> Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.</p>                                |   |  |
|  | <p><b>8.2.6</b> Identify, explain and discuss some effects human activities (e.g., air, soil, light, noise and water pollution) have on the biosphere.</p>  |   |  |
|  | <p><b>8.2.7</b> Recognize that some of Earth’s resources are finite and describe how recycling, reducing consumption and the development of alternatives can reduce the rate of their depletion.</p>  |   |  |
|  | <p><b>8.3.9</b> Describe the effect of environmental changes on populations of organisms when their adaptive characteristics put them at a disadvantage for survival. Describe how extinction of a species can ultimately result from a disadvantage.</p> |   |  |
| <p><b>Deserts and Grasslands of Africa Virtual Field Trip</b></p>                                      | <p><b>4.2.6</b> Describe ways in which humans have changed the natural environment. Explain if these changes have been detrimental or beneficial.</p>   |   | <p><b>7.3.5</b> Describe ecosystems of Africa’s deserts, Asia’s mountain regions, and the coral reefs of Australia and use multiple information resources to discover environmental concerns that these ecosystems are facing today.</p> |

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|  | <p><b>4.3.2</b> Observe, compare and record the physical characteristics of living plants or animals from widely different environments. Describe how each plant or animal is adapted to its environment.</p>   |  | <p><b>7.3.6</b> Compare and contrast the distribution of natural resources in Africa, Asia and the Southwest Pacific; describe how natural resource distribution can impact the wealth of a country.</p> |
|  | <p><b>6.3.2</b> Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p>   |  | <p><b>7.3.7</b> Describe the limitations that climate and land forms place on land or people in regions of Africa, Asia and the Southwest Pacific.</p>   |
| <p align="center"><b>How Nature Works in Coastal Peru: The Amazing Biodiversity of a Coastal Ecosystem</b></p> | <p><b>4.3.2</b> Observe, compare and record the physical characteristics of living plants or animals from widely different environments. Describe how each plant or animal is adapted to its environment.</p> <p><b>6.3.1</b> Describe specific relationships (i.e., predator and prey, consumer and producer, and parasite and host) between organisms and determine whether these relationships are competitive or mutually beneficial.</p> <p><b>6.3.2</b> Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.</p> <p><b>6.3.3</b> Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.</p> <p><b>6.3.4</b> Recognize that plants use energy from the sun to make sugar (i.e., glucose) by the process of photosynthesis.</p> <p><b>6.3.5</b> Describe how all animals, including humans, meet their energy needs by consuming other organisms, breaking down their structures, and using the materials to grow and function.</p> <p><b>6.3.6</b> Recognize that food provides the energy for the work that cells do and is a source of the molecular building blocks that can be incorporated into a cell’s structure or stored for later use.</p> <p><b>B.4.1</b> Explain that the amount of life environments can support is limited by the available energy, water, oxygen and minerals and by the ability of ecosystems to recycle the remains of dead organisms.</p> |  | <p><b>6.3.7</b> Locate and describe the climate regions of Europe and the Americas and explain how and why they differ.</p>  |
| <p align="center"><b>Powering the Planet: Renewable Energy Virtual Field Trip</b></p>                          | <p><b>7.1.3</b> Recognize and explain how different ways of obtaining, transforming and distributing energy have different environmental consequences.</p> <p><b>7.4.2</b> Explain that energy can be used to do work using many processes (e.g., generation of electricity by harnessing wind energy).</p> <p><b>8.2.7</b> Recognize that some of Earth’s resources are finite and describe how recycling, reducing consumption and the development of alternatives can reduce the rate of their depletion.</p>  |  | <p><b>6.3.8</b> Identify major biomes of Europe and the Americas and explain how these are influenced by climate.</p>  |

**Children of Indiana Nature Park: Nature Works Everywhere Curriculum**

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|  | <p><b>8.2.8</b> Explain that human activities, beginning with the earliest herding and agricultural activities, have drastically changed the environment and have affected the capacity of the environment to support native species. Explain current efforts to reduce and eliminate these impacts and encourage sustainability.</p> |  |   |
|  | <p><b>ES.3.3</b> Identify and differentiate between renewable and nonrenewable resources present within Earth's systems. Describe the possible long-term consequences that increased human consumption has placed on natural processes that renew some resources.</p>   |  |   |
| <p align="center"><b>Wild Biomes: From America's Rainforest to America's Desert Virtual Field Trip</b></p> | <p><b>1.3.1</b> Classify living organisms according to variations in specific physical features (e.g., body coverings, appendages) and describe how those features may provide an advantage for survival in different environments.</p>   |  | <p><b>6.3.13</b> Explain the impact of humans on the physical environment in Europe and the Americas.</p> |
|  | <p><b>1.3.2</b> Observe organisms closely over a period of time in different habitats such as terrariums, aquariums, lawns and trees. Draw and write about observations.</p>  |  |   |
|  | <p><b>2.2.1</b> Construct and use tools to observe and measure weather phenomena like precipitation, changes in temperature, wind speed and direction.</p>  |  |   |
|  | <p><b>3.3.2</b> Investigate plant growth over time, take measurements in SI units, record the data and display the data in graphs. Examine factors that might influence plant growth</p>  |  |   |
|  | <p><b>4.2.2</b> Describe how wind, water and glacial ice shape and reshape earth's land surface by eroding rock and soil in some areas and depositing them in other areas in a process that occurs over a long period of time.</p>  |  |   |
|  | <p><b>4.2.4</b> Investigate earth materials that serve as natural resources and gather data to determine which ones are limited by supply.</p>  |  |   |
|  | <p><b>4.2.5</b> Describe methods that humans currently use to extend the use of natural resources.</p>  |  |   |
|  | <p><b>4.2.4</b> Investigate earth materials that serve as natural resources and gather data to determine which ones are limited by supply.</p> <p><b>K.2.3</b> Describe in words and pictures the changes in weather from month to month and season to season.</p>  |  |   |