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The Living World (Life Science)

Enduring Knowledge	Science Concepts	GE	Evidence of Understanding
<p><u>Life Cycles and Reproduction:</u> All living organisms and their component cells have identifiable characteristics that allow for survival.</p>	<p>a. Although all organisms have common stages of development, details of a life cycle are different for different organisms.</p>	31	Investigating and describing a variety of plant and animal life cycles
<p><u>Interdependence within Ecosystems:</u> Energy enters an ecosystem in the form of sunlight and flows through the system to each cell. Matter interacts, changes, and recycles in an ecosystem. Populations of organisms survive by maintaining interdependent relationships with one another and by utilizing biotic and abiotic resources from the environment.</p>	<p>a. Energy derived from food is needed for all organisms (plants and animals) to stay alive and grow.</p>	34	Identifying the source of energy for the survival of organisms
<p><u>Interdependence within Ecosystems:</u> Energy enters an ecosystem in the form of sunlight and flows through the system to each cell. Matter interacts, changes, and recycles in an ecosystem. Populations of organisms survive by maintaining interdependent relationships with one another and by utilizing biotic and abiotic resources from the environment.</p>	<p>a. Food for animals can be traced back to plants. b. Organisms can survive best only in habitats in which their needs are met.</p>	35	<p>Recognizing that, in a simple food chain, all animals' food begins with plants Researching and designing a habitat and explaining how it meets the needs of the organisms that live there</p>

<p><u>Interdependence within Ecosystems:</u> Energy enters an ecosystem in the form of sunlight and flows through the system to each cell. Matter interacts, changes, and recycles in an ecosystem. Populations of organisms survive by maintaining interdependent relationships with one another and by utilizing biotic and abiotic resources from the environment.</p>	<p>a. Organisms interact with one another in various ways besides providing food (e.g., Many plants depend on animals for carrying their pollen to other plants for fertilizing their flowers).</p>	<p>36</p>	<p>Explaining how one organism depends upon another organism to survive</p>
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Focusing Questions	Potential Inquiries/Activities	Resources/Notes
<p>How do the life cycles of organisms differ?</p> <ul style="list-style-type: none"> - Plants and animals have life cycles. - A life cycle includes being born, developing into adults, and eventually dying. - Details of a life cycle are different for different organisms. 	<p>Observe and record the stages of life cycles. (both plant and animal). Compare two life cycles.</p>	<p>Butterfly kit Plant kit</p>
<p>How is energy transferred through an ecosystem?</p> <ul style="list-style-type: none"> - Sunlight is the major source of energy in an ecosystem. - Energy from the sun is transferred by producers to energy through photosynthesis. - Energy moves through an ecosystem through food webs. 	<p>Identify the survival needs for plants and animals.</p>	
<p>How are plants and animals the same or different?</p> <ul style="list-style-type: none"> - Plants produce their own food. - Animals consume plants and sometimes other animals. - Plants and animals decompose. - All plants and animals reproduce. <p>How does an environment influence organisms? How does habitat determine the living things found there?</p> <ul style="list-style-type: none"> - Organisms can survive only in an environment in which their needs can be met. - Plants and animals have evolved to survive in their environment. - All living things are part of a food web. - Animals find shelter in their environment. - Living things are affected by natural and environmental factors such as climate and physical characteristics of the environment. - Living things are affected by man-made environmental factors such as construction, overuse of natural resources, and pollution. - The living and non-living things in a habitat form a system made of interrelated parts that influence one another. 	<p>Create a food chain. Design a habitat. Why do sharks live in the ocean and squirrels live in the forest?</p>	<p>Different Habitats Terrarium in classroom</p>

<p>How do organisms depend upon each other for survival?</p> <p>- Living systems at all levels of organization demonstrate the complementary nature of structure and function.</p>	<p>Identify the symbiotic relationships between organisms. Activity: look at various ways in which pollination occurs. How do bees help farmers?</p>	<p>Adding fertilizer to terrarium</p>
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