



2nd Grade - Elementary Science Bundle # 8

Title		
Interdependence		Suggested Dates Jan 31 – Feb 18 (14.5 days)
Link to Integrated Process Skills Link to Related Assurance Words		

Big Idea/Enduring Understanding	Guiding Questions
Living things depend upon other living things and their environment to meet their needs.	How do plants and animals depend upon each other to meet their needs? How do patterns of behavior help living things survive changes in their environment?

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the district curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See note above)
<p>2.9 Organisms and environments. The student knows that living organisms have basic needs that must be met for them to survive within their environment. The student is expected to:</p> <p>2.9c compare and give examples of the ways living organisms depend on each other and on their environments such as food chains within a garden, park, beach, lake, and wooded areas</p>	<p>Including:</p> <ul style="list-style-type: none"> • Shelter • Food • Water • Products (human use) • Food chain (food, nutrients) <p>Including “who eats who” within the following environments as examples:</p> <ul style="list-style-type: none"> • Garden • Park • Lake • Wooded area (including forests) • Beach / ocean <p>Including:</p> <ul style="list-style-type: none"> • Animals <ul style="list-style-type: none"> ○ Move seeds ○ Provide food for other animals ○ Provide clothing and other products • Plants <ul style="list-style-type: none"> ○ Provide food for animals ○ Provide shelter for animals ○ Provide clothing and other products • Food chain – plants and animals (including humans) depend 	<p><u>AIMS 2nd Grade Life Science Core Curriculum:</u> “Where do We Belong”, page 209 “A Walk in the Park”, page 224 “Readers’s Theater – We Need Each Other”, page 238</p> <p><u>FOSS Kit: Plants and Animals:</u> Investigation 3: Terrariums</p> <p><u>Gateway 2nd Grade:</u> 5:3 Dependent Organisms, page 121</p> <p><u>BrainPopJr:</u> “Food Chains” “Arctic Habitats” “Desert” “Freshwater Habitats” “Rainforests”</p> <p><u>United Streaming:</u> “Habitats: Home for Living Things” “Ocean Habitats: Shoreline and Reef” “Desert Habitats” “Ocean Habitats: Light and Dark Zones” “Forest Habitats” “Plant Habitats”</p>

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	<p style="text-align: center;">on each other by providing nutrients and energy</p> <p>NOTE: Introduce “habitat” by showing an organism’s DIRECT environment (home, shelter) is different from the “environment” in its entirety. Habitats are part of the environment. Animals and plants obtain their basic needs from their habitats, which are affected by environmental conditions (such as weather change)</p>	<p>“Plant Habitats Found Around the World” “The Tropical Rainforest Habitat” “Junior Oceanographer: The Life in the Sea” “Let’s Explore: Down By the Water”</p> <p>BrainPopJr: “Fall” – migration / hibernation “Caring for Pets” (shots, etc) – interdependence “Hibernation”</p> <p>BBC Plants and Animals in the Local Environment Game</p> <p>BBC Plants and Animals in the Local Environment Lesson and other Teacher Resources</p>
<p>2.9 Organisms and environments. The student knows that living organisms have basic needs that must be met for them to survive within their environment. The student is expected to:</p> <p>2.9b identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things</p>	<p>Including:</p> <ul style="list-style-type: none"> • Embedded review of behaviors (Bundle 7) affected by environmental factors, such as migration, hibernation, and dormancy • Extreme temperature changes (hot, cold, droughts, ice storms, day/night differences such as in a desert) • Precipitation changes: snow, blizzards, rain, sleet, hail, flooding, etc • Extreme weather conditions (hurricanes, tornadoes, wind gusts, etc) 	<p>BrainPopJr: “Hibernation” “Migration” “Seasons”</p> <p>Animals: hibernation, (dormancy), and migration (This lesson requires slight tweaking; do not use the vocabulary word “estivation”)</p> <p>Animal Migration Unit</p> <p>Animal Migration: Patterns</p> <p>United Streaming: “Through the Seasons with Birds” (various segments on migration)</p>
<p>Scientific Investigation and Reasoning Back to Top</p>		
<p>2.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures. The student is expected to:</p> <p>2.1a identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately</p> <p>2.1b describe the importance of safe practices</p>	<p>Review outdoor investigations safety and classroom rules</p> <p>Including:</p> <ul style="list-style-type: none"> • No tasting or touching unless instructed • Safe smelling – wafting • Goggles, as needed • Wait for teacher directions • No glassware • Students do not handle hot water, hot plates or burners. • Wash hands after science activities • Safe use of tools, such as scissors 	<p>PISD Science Safety Page</p> <p>Texas Science Safety Standards</p> <p>DuPont Science Safety Zone</p>

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<p>2.1c identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal</p>	<ul style="list-style-type: none"> • Review investigation safety procedures <ul style="list-style-type: none"> ○ directly point out precautions, possible safety risks, specific guidelines for the lesson for both indoor and outdoor activities, as applicable. ○ encourage students to identify these on their own throughout the year [document in science notebooks via words and/or pictures] 	
<p>2.2 Scientific investigation and reasoning. The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations. The student is expected to:</p> <p>2.2a ask questions about organisms, objects, and events during observations and investigations</p> <p>2.2b plan and conduct descriptive investigations such as how organisms grow</p> <p>2.2c collect data from observations using simple equipment such as hand lenses, primary balances, thermometers, and non-standard measurement tools</p> <p>2.2d record and organize data using pictures, numbers, and words</p> <p>2.2e communicate observations and justify explanations using student-generated data from simple descriptive investigations</p> <p>2.2f compare results of investigations with what students and scientists know about the world</p>	<p>Descriptive Investigation sample: Observe the class pet and represent the environment the pet lives in</p> <p>Classroom Techniques:</p> <ul style="list-style-type: none"> • A minimum of 3 models / examples should be used enabling different modalities of learning • Teacher uses “think aloud” technique throughout the investigation • Use a variety of questions (both open and closed) • Both academic and informal science language should be used to develop appropriate vocabulary in context • Explicitly model the relationship between the question, materials, and steps in the investigation 	<p>What are descriptive, comparative, and experimental investigations?</p> <p>KLEW/ Claims & Evidence</p>
<p>2.3 Scientific investigation and reasoning. The student knows that information and critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:</p> <p>2.3a identify and explain a problem in his/her own words and propose a task and solution for the problem such as lack of water in a habitat</p> <p>2.3b make predictions based on observable patterns</p> <p>2.3c identify what a scientist is and explore what</p>	<p>Example: What can be done to assist animals who have lost their habitat?</p> <p>Related Careers:</p> <ul style="list-style-type: none"> • Conservationist • Ecologist 	<p>Using Socratic Seminars for higher-order thinking and discussion</p> <p>Multisensory Strategies for Science Vocabulary by Sandra Husty and Julie Jackson includes Bag & Tag</p>

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different scientists do		
<p>2.4 Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:</p> <p>2.4a collect, record, and compare information using tools, including computers, hand lenses, rulers, primary balances, plastic beakers, magnets, collecting nets, notebooks, and safety goggles; timing devices, including clocks and stopwatches; weather instruments such as thermometers, wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums</p> <p>2.4b measure and compare organisms and objects using non-standard units that approximate metric units</p>	<p>Including:</p> <ul style="list-style-type: none"> • Hand lens • Notebooks • Cameras • Materials to support observations of habitats of organisms such as terrariums and aquariums <p>Such as:</p> <ul style="list-style-type: none"> • Computers • Collecting Nets 	<p>How to Make a Soda Bottle Terrarium</p> <p>TLC Bottle Terrarium</p>
Related Assurance Words		<u>Back to Top</u>
<p>behavior(s), characteristic, classify, communicate, compare, demonstrate, dispose, energy, function, habitat, hibernation / dormancy, interdependence, migration, motion / movement, patterns, predict, protection, temperature, weather</p>		