



1st Grade - Elementary Science Bundle 4

Title	 	Suggested Dates
Using Natural Resources		Oct 25 – Nov 12 (14.5 days)
Link to Integrated Process Skills Link to Related Assurance Words Link to Related Literature Link to Assessment Science Fair		

Big Idea/Enduring Understanding	Guiding Questions
The natural world consists of materials that we use in our everyday life.	How do we use natural resources in our everyday lives?
There are ways to reuse or recycle materials so that we do not overuse and reduce or eliminate our natural resources.	How can we reuse or recycle natural resources?

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>1.7 Earth and Space. The student knows that the natural world includes rocks, soil, and water that can be observed in cycles, patterns, and systems. The student is expected to:</p> <p>1.7c gather evidence of how rocks, soil, and water help to make useful products</p>	<p>Including</p> <ul style="list-style-type: none"> • Uses of (both original use and recycled use) <ul style="list-style-type: none"> ○ Rocks: construction tools, art/jewelry, seasoning (salt), etc ○ Soil: support for plants, agriculture (food/nutrients), construction, etc ○ Water: <ul style="list-style-type: none"> Such As: <ul style="list-style-type: none"> • Brushing teeth • Cooking • Cleaning • Drinking • Washing • Watering lawns / plants • Washing cars / pets • Products such as water bottles, flavored water, popsicles • Water dams • Fresh and salt bodies of water are often deemed borders and boundaries for states, countries, land ownership ○ Wood: houses, flower beds, furniture, pencils 	<p>TAKscopes 1.7a,c Rocks, Soil, and Water</p> <p>Engage Explore (can be used as a review of Bundle 2) Explain - Question Prompts and Student Vocabulary cards can be used as review of Bundle 2 Explain - Picture Vocabulary Elaborate – Next Step Inquiry can be used as review Elaborate – Science Reading Passages, Math Connections</p> <p><u>AIMS 1st Grade Science Core Curriculum:</u> “Dirt Drawings”, page 267 “Water from Stream to Sink”, page 277 “All Sorts of Stuff”, page 55 “Plan a Pot”, page 60</p> <p><u>Gateways To Science: Grade 1 -</u> 4:2 Earth Materials, page 92, Elaborate only: Activity 1 and 2; Science Reader “Soil” (each campus has a “reader” – check with your librarian)</p> <p><u>Gateways To Science: Grade 1 -</u> 4:2 Water, page 83 (Activity 1: Explore)</p> <p><u>United Streaming:</u> “The Importance of Water” – start with segment “Water is a Basic Need” (10 minutes)</p>

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		BrainPopJr: “Natural Resources” activity (not the movie): “How much water do you think you use everyday?”; Draw About It
<p>1.8 Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:</p> <p><i>1.8a record weather information, including relative temperature, such as hot or cold, clear or cloudy, calm or windy, and rainy or icy</i></p>	<p><i>Keep weather log (as part of morning weather / calendar routine). Can be daily, weekly, or other routine pattern of data.</i></p>	
<p>Scientific Investigation and Reasoning The Process TEKS are integrated with and taught THROUGH the content TEKS.</p>		<p>Back to Top</p>
<p>1.1 Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to:</p> <p>1.1a recognize and demonstrate safe practices as described in the Texas Science Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately</p> <p>1.1b recognize the importance of safe practices to keep self and others safe and healthy</p> <p>1.1c identify and learn how to use natural resources and materials including conservation and reuse or recycling of paper, plastic, and metals</p>	<p>Including:</p> <ul style="list-style-type: none"> • Waiting for directions • No tasting unless teacher tells you it is ok • Goggles, as needed • No glassware • Students should not handle hot water, hot plates, or burners • Wash hands after science activity • Review safety procedures / precautions and related specifics for lesson(s) • Students should make note of these periodically in their notebooks and begin to identify safety on their own 	<p>PISD Safety Website</p> <p>DuPont Science Safety Zone website</p> <p>Texas Science Safety Standards</p>
<p>1.2 Scientific investigation and reasoning. 1.2 Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:</p> <p>1.2a ask questions about organisms, objects, and events observed in the natural world</p> <p>1.2b plan and conduct simple descriptive investigations such as ways objects move</p> <p>1.2c collect data and make observations using simple</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>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> <p>“Teaching Science Through Inquiry”, page 17 More Picture Perfect Science Lessons, NSTA Press</p>

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<p>equipment such as hand lenses, primary balances, and non-standard measurement tools</p> <p>1.2d record and organize data using pictures, numbers, and words</p> <p>1.2e communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations</p>		<p>(also in Picture Perfect Science Lessons)</p> <p>“BSCS 5E Instructional Model”, page 27 Picture Perfect Science Lessons, NSTA Press (also in More Picture Perfect Science Lessons)</p>
<p>1.3 Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:</p> <p>1.3a identify and explain a problem such as finding a home for a classroom pet and propose a solution in his/her own words</p> <p>1.3c describe what scientists do</p>	<p>Example: What is the best way to dispose of _____ when we are done using it?</p> <p>Related Careers:</p> <ul style="list-style-type: none"> • Landscapers / landscape architect • Farmer • Geologist • Geographer • Environmental scientist • Sanitarians • Foresters • conservationist <p>Including:</p> <ul style="list-style-type: none"> • Asking questions • Investigating • Analyzing about the data • Making conclusions 	
<p>1.4 Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:</p> <p>1.4a collect, record, and compare information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles; timing devices, including clocks and timers; non-standard measuring items such as paper clips and clothespins; weather instruments such as classroom demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as aquariums and terrariums</p>	<p>Including, but not limited to:</p> <ul style="list-style-type: none"> • notebooks • computers • sources of pictures with various examples of natural resources being used <p>Optional:</p> <ul style="list-style-type: none"> • cameras • news articles • magazine stories • internet 	

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1.4b measure and compare organisms and objects using non-standard units		
Related Assurance Words		Back to Top
collect, data, describe, description, important, lakes, location, natural resource, need(s), object, observer (observation), oceans, produce (production), property (properties), record, resemble, sample, sort, streams		
Related Literature		Back to Top
<u>Clay</u> , by Mary Firestone <u>Natural Resources</u> , by Louise Spilsbury <u>Paper</u> , by Sara Louise Kras		
Assessment		Back to Top
<i>Scenario / Open Ended</i>	<i>Performance Assessment</i>	
Gateways to Science: Grade 1 – 4:1 Water, Page 86, Question 1 TAKScopes 1.7a.c Rocks, Soil, and Water Evaluate: Writing Prompt can be used as a review from Bundle 3	Gateways to Science: Grade 1 – 4:2: Earth Materials, page 93 TAKScopes 1.7a.c Rocks, Soil, and Water Evaluate: Concept Builder	