

First Grade Science SBRC Rubric

Report Card Standard	TEKS	Performance Assessment	Assessment of Mastery		
Process Skills			PS	AS	IPS
Actively participates in planning and conducting investigations using tools safely.	<p>1A Identify, discuss, and demonstrate safe and healthy practices as outlined in Texas Education Agency-approved science safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately.</p> <p>1B Identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals.</p> <p>2A Ask questions about organisms, objects, and events observed in the natural world.</p> <p>2B Plan and conduct simple descriptive investigations.</p>	Learners design and conduct descriptive investigations of objects or organisms, demonstrating safe practices. Throughout the investigations, students collect and record data and effectively communicate their findings.	Demonstrates active participation in planning and conducting investigations using tools safely with teacher assistance.	Participates in planning and conducting investigations using tools safely with teacher assistance, but requires much prompting.	Demonstrates minimal participation in planning and conducting investigations using tools safely with teacher assistance.
Observes, collects, measures, and records scientific	2C Collect data and make observations using simple tools.		Demonstrates a solid ability to observe, collect,	Demonstrates a partial ability to observe, collect,	Demonstrates a minimal ability to observe,

data.	2D Record and organize data using pictures, numbers, and words. 2E Communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations. 4A Collect, record, and compare information using tools, such as...(see TEKS). 4B Measure and compare organisms and objects using non-standard units.		and record scientific data independently.	and record scientific data independently	collect, and record scientific data independently
Makes predictions, justifies, explains, and draws conclusions based on data.	3A Identify and explain a problem and propose a solution. 3B Make predictions based on observable patterns. 3C Describe what scientists do.	Learners mirror the work of scientists by identifying real problems, using collected data to make predictions, and designing problem solutions. Throughout the process, students plan for and model conservation of resources.	Demonstrates a solid ability to make predictions and justify explanations independently, and draw conclusions collaboratively.	Demonstrates a partial ability to make predictions and justify explanations independently, and draw conclusions collaboratively.	Demonstrates minimal ability to make predictions and justify explanations independently, and draw conclusions collaboratively.
Life Science					
Gathers evidence to show that living things depend on their environment to meet their basic needs.	9A Sort and classify living and nonliving organisms based upon whether or not they have basic needs and produce offspring. 9B Analyze and record examples of	Learners observe a terrarium or aquarium that includes both plants and animals and draw and label diagrams that explain the ways in which the components within the ecosystem interact and depend upon each other. Learners use	Demonstrates a solid ability to gather evidence to show that plants depend on their environment to meet their	Demonstrates a partial ability to gather evidence to show that plants depend on their environment to	Demonstrates minimal ability to gather evidence to show that plants depend on their environment to

	interdependence found in various situations such as terrariums and aquariums or pet and caregiver. 9C Gather evidence of interdependence among living organisms such as energy transfer through food chains and animals using plants for shelter.	their drawings as evidence to support claims as they describe ways in which organisms depend upon each other.	basic needs.	meet their basic needs.	meet their basic needs.
Identifies and compares parts of plants.	10B Identify and compare the parts of plants.	Learners observe a habitat such as an aquarium, zoo, or pond and record ways in which external features of animals relate to where they live, what they eat, and how they move. Learners describe ways in which the young animals are similar to and different from the adults. Learners process their observations by making a claim that is supported by their collected evidence.	Demonstrates a solid ability to identify and compare parts of plants.	Demonstrates a partial ability to identify and compare parts of plants.	Demonstrates minimal ability to identify and compare parts of plants.
Compares changes that occur within life cycles of animals and compares the young to their parents.	10C Compare ways that young animals resemble their parents. 10D Observe and record life cycles of animals such as a chicken, frog, or fish.		Actively observes and records changes in the life cycle of animals.	Demonstrates a partial ability to observe and record changes in the life cycle of animals.	Demonstrates minimal ability to observe and record changes in the life cycle of animals.
Identify characteristics of animals that relate to what they eat, where they live, and how they move.	10A Investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats.	If possible, allow learners to observe and describe an animal cycle first-hand, such as through hatching chicken eggs or raising tadpoles.	Demonstrates a solid ability to identify characteristics of animals that are related to where they live, how they move and what they eat.	Demonstrates a partial ability to identify characteristics of animals that are related to where they live, how they move and what they eat.	Demonstrates minimal ability to identify characteristics of animals that are related to where they live, how they move and what they eat.
Physical Science					
Classifies objects by observing their	5A Classify objects by observable properties	When given a box of assorted items, learners sort and group	Demonstrates a solid ability to	Demonstrates a partial ability to	Demonstrates minimal ability

different properties.	such as larger and smaller, heavier and lighter, shape, color, and texture. 5B Predict and identify changes in materials caused by heating and cooling.	them according to similar observable properties and justify their reasoning to others. Learners plan and conduct investigations to test predictions and identify changes in properties caused by heating and cooling.	classify objects by observing their different properties.	classify objects by observing their different properties.	to classify objects by observing their different properties.
Demonstrates ways in which forces cause objects to move.	6A Identify and discuss how different forms of energy such as light, thermal, and sound are important to everyday life. 6B Predict and describe how a magnet can be used to push or pull an object. 6C Demonstrate and record the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow.	Learners use tools and materials to design and build a device that uses energy such as light or sound to communicate over a distance or that uses a variety of forces to cause a variety of types of motion. For the chosen device, the learner effectively communicates how and why it works as it does.	Solidly demonstrates ways in which forces cause objects to move.	Partially demonstrates ways in which forces cause objects to move.	Minimally demonstrates ways in which forces cause objects to move.
Earth Science					
Identifies and describes natural resources and explains how they can be used.	7A Observe, compare, describe, and sort components of soil by size, texture, and color. 7B Identify and describe a variety of natural sources of water, including streams, lakes, and oceans.	Learners collect local rocks and minerals and develop a collection as a class or in groups. Sort the rocks and minerals into groups based upon observable properties and display them with group names based upon characteristics. Learners create models of the	Demonstrates a solid ability to identify and describe natural resources, including rocks, soil, and water and explain how they can be used.	Demonstrates a partial ability to identify and describe natural resources, including rocks, soil, and water and explain how they can be used.	Demonstrates minimal ability to identify and describe natural resources, including rocks, soil, and water and explain how they can be

	7C Gather evidence of how rocks, soil, and water help to make useful products.	components and layers (horizons) making up the soil in our area. Label the models. Explain how soil and the different layers form.			used.
Observes and records changes in weather and movement of objects in the sky.	8A Record weather information, including relative temperature, such as hot or cold, clear or cloudy, calm or windy, and rainy or icy. 8B Observe and record changes in the appearance of objects in the sky such as clouds, the moon, and stars, including the sun. 8C Identify characteristics of seasons of the year and day and night. 8D Demonstrate that air is all around us and observe that wind is moving air.	Learners record weather information daily, including wind observations, for a period of time and observe and record changes in the appearances of objects in the sky and in conditions during day vs. night and through various seasons. Learners review their collected evidence (observations) and make claims about the general trends in weather supported by that evidence.	Demonstrates a solid ability to observe changes in the weather and movements of objects in the sky.	Demonstrates a partial ability to observe changes in the weather and movements of objects in the sky.	Demonstrates minimal ability to observe changes in the weather and movements of objects in the sky.