

First Grade Science Curriculum Card

[Link to DESE K-5 Science Grade Level Expectations](#)

updated November 2014

Quarter Taught	Strand 1: Properties and Principles of Matter and Energy
	Properties of Matter: Mass and Temperature
	ME1Aa - Given an equal-arm balance and various objects, illustrate arrangements in which the beam is balanced
	ME1Ab - Measure and compare the mass of objects (more/less)
	ME1Ac - Order objects according to mass
	ME2Aa - Identify the source of energy that causes an increase in the temperature of an object (e.g., Sun, stove, flame, light bulb)
	ME2Ab - Compare the temperature of hot and cold objects using a simple thermometer
	ME2Ac - Describe the change in temperature of an object as warmer or cooler
	Characteristics of Plants and Animals
	ME2Ca - Identify light from the Sun as a basic need of most plants
	Strand 2: Properties and Principles Force and Motion
	Investigating Motion
	FM1Aa - Compare the position of an object relative to another object (e.g., left of or right of)
	FM1Ab - Describe an object's motion as straight, circular, vibrating (back and forth), zigzag, stopping, starting, or falling
	FM1Ac - Compare the speeds (faster vs. slower) of two moving objects
	FM2Aa - Identify the force (i.e., push or pull) required to do work (move an object)
	FM2Da - Describe ways to change the motion of an object (i.e., how to cause an object to go slower, go faster, go farther, change direction, stop)
	Strand 3: Characteristics and Interactions of Living Organisms
	Characteristics of Plants and Animals
	LO1Aa - Identify the basic needs of most animals (i.e., air, water, food, shelter)
	LO1Ab - Identify the basic needs of most plants (i.e., air, water, light)
	LO1Ac - Predict and investigate the growth of plants when growing conditions are altered (e.g., dark vs. light, water vs.no water)
	LO1Da - Identify and compare the physical structures of a variety of plants (e.g., stem, leaves, flowers, seeds, roots)

	LO1Db - Identify and compare the physical structures of a variety of animals (e.g., sensory organs, beaks, appendages, body covering) (Do NOT assess terms: sensory organs, appendages)
	LO1Dc - Identify the relationships between the physical structures of plants and the function of those structures (e.g., absorption of water, absorption of light energy, support, reproduction)
	LO1Dd - Identify the relationships between the physical structures of animals and the function of those structures (e.g., taking in water, support, movement, obtaining food, reproduction)
	LO1Ea - Distinguish between plants and animals based on observable structures and behaviors
	Strand 4: Changes in Ecosystems and Interactions of Organisms with Their Environment
	Characteristics of Plants and Animals
	EC1Aa - Identify ways man depends on plants and animals for food, clothing, and shelter
	Strand 5: Processes and Interactions of the Earth's System
	Observing Water and Weather
	EC2Fa - Observe, measure, record weather data throughout the year (i.e., cloud cover, temperature, precipitation, wind speed) by using thermometers, rain gauges, wind socks
	EC2Fb - Compare temperatures in different locations (e.g., inside, outside, in the sun, in the shade)
	EC2Fc - Compare weather data observed at different times throughout the year (e.g., hot vs. cold, cloudy vs. clear, types of precipitation, windy vs. calm)
	EC2Fd - Identify patterns indicating relationships between observed weather data and weather phenomena (e.g., temperature and types of precipitation, clouds and amounts of precipitation)
	ES3Aa - Observe and describe ways water, both as a solid and liquid, is used in everyday activities at different times of the year (e.g., bathe, drink, make ice cubes, build snowmen, cook, swim)
	Strand 6: Composition and Structure of the Universe and the Motion of the Objects Within It
	Not assessed at this level
	Strand 7: Scientific Inquiry
	Embedded in All Units
	IN1Aa - Pose questions about objects, materials, organisms and events in the environment
	IN1Ab - Plan and conduct a simple investigation (fair test) to answer a question
	IN1Ba - Make qualitative observations using the five senses
	IN1Bb - Make observations using simple tools and equipment (e.g., magnifiers/hand lenses, magnets, equal arm balances, thermometers)
	IN1Bc - Measure length, mass, and temperature using standard and nonstandard units

	IN1Bd - Compare amounts/measurements
	IN1Ca - Use observations as support for reasonable explanations
	IN1Cb - Use observations to describe relationships and patterns and to make predictions to be tested
	IN1Cc - Compare explanations with prior knowledge
	IN1Da - Communicate simple procedures and results of investigations and explanations through: <ul style="list-style-type: none"> • oral presentations • drawings and maps • data tables • graphs (bar, pictograph) • writings
	Strand 8: Impact of Science, Technology, and Human Activity
	Properties of Matter: Weather and Seasons
	ST1Aa - Observe and identify that some objects occur in nature (natural objects); others have been designed and made by people
	Properties of Matter and Characteristics of Plants and Animals
	ST1Ba - Describe how tools have helped scientists make better observations (e.g., magnifiers, balances, thermometers)
	Embedded in All Units
	ST3Aa - Identify a question that was asked, or could be asked, or a problem that needed to be solved when given a brief scenario (fiction or nonfiction of individuals solving everyday problems or learning through discovery)
	ST3Ab - Work with a group to solve a problem, giving due credit to the ideas and contributions of each group member (Assess Locally)