- Required to be taught to meet state standards in Science
- ✓ Information introduced for the next grade level
- \+ Brookings School District additional requirements

Kindergarten Nature of Science

Indicator 1: Understand the nature and origin of scientific knowledge.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessment	Resources	Technology
	(Mastery of this indicator does not emerge until eighth grade.)				

Indicator 2: Apply the skills necessary to conduct scientific investigations.

Note: These skills should be taught and practiced in grade-level study of Physical, Life, and Earth/Space Science although mastery is not expected at these grade levels.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
		✓ Students are able to use scientific thinking skills of observing and communicating. • Use their senses and simple instruments/tools to make observations. Example: Use hand lenses, balance scales, *"Kitchen Chemistry"* ✓ Students are able to safely conduct simple experiments.			**Students use technology to locate and acquire information.** K.IL.5.1: Identify what information is K.IL.5.2: Recognize that it can be represented in a variety of ways. Example: numbers, words, pictures, sounds

		• Use non-standard units of measurement to compare objects. Example: Compare length of various leaves to determine which are longer/shorter than a given example.			

Kindergarten Nature of Science
Performance Descriptors

Note: At the K-2 level, the teachers need to focus on observing and collecting information about the progress students are making related to the checkmark statements. The skills and concepts addressed in this goal are to be included across the other goals. Appropriate scientific instruction should provide students the opportunity to actively engage in scientific investigations.

Kindergarten Physical Science

Indicator 1: Describe structures and properties of, and changes in, matter.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
(Comprehension)	**K.P.1.1. Students are able to use senses to describe solid objects in terms of physical attributes.**	• Explain how larger objects are made of smaller pieces. Examples: Use hand lenses to observe particleboard to conclude that it is made from sawdust and wood chips and to see that fabric is made from fibers. • Identify similarities /differences of various objects. Example: Given a collection of shoes, students can describe ways the shoes are alike and ways the shoes are different.			
(Knowledge)	**K.P.1.2. Students are able to identify water in its solid and liquid forms.**	✓ Students are able to observe physical changes in matter • Observe ice in the environment. Examples: Observe ice in/on ponds, icicles, frost on playground surfaces. • Observe water in the environment. Examples: Observe rain, puddles, river, and water fountain. Examples: Observe melting chocolate, freezing ice cubes, bending straws, and tearing paper.			

Indicator 2: Analyze forces, their forms, and their effects on motions.

Note: These skills should be taught and practiced although mastery is not expected until a later grade level.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
		✓ Students are able to identify things that move. Examples: wheels, swings, bicycles, bodies + Students explore how things move and directions in which they move. Example: Forward, backward, around, push and pull. ✓ Students are able to explore magnets. Example: Use a variety of magnets (horseshoe, donut, bar, ball/marble, wand magnets) to test attraction. Test on wood, paper, water, metals, etc.			

Indicator 3: Analyze interactions of energy and matter.

Note: These skills should be taught and practiced although mastery is not expected until a later grade level.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
		✓ Students are able to explore vibration and sound. Examples: Use musical instruments, voice box, rubber bands, to see/feel vibrations and hear different sound tones, pitches, etc.			**Students evaluate and select information tools based on the appropriateness to specific tasks** K.CT.3.1 – Recognize technology as a tool to help complete a task Example: telephone-talk, drill-makes a hole

Kindergarten Physical Science
Performance Descriptors

Advanced	**Kindergarten students performing at the advanced level:** • categorize solid objects by physical attributes; • describe how to transform water from a solid to a liquid.
Proficient	**Kindergarten students performing at the proficient level:** • describe solid objects in terms of physical attributes; • identify water in its solid and liquid forms.
Basic	**Kindergarten students performing at the basic level:** • describe solid objects in terms of one physical attribute; • identify water in its liquid form.

Kindergarten Life Science

Indicator 1: Understand the fundamental structures, functions, classifications, and mechanisms found in living things.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
(Application)	**K.L.1.1. Students are able to sort living from non-living things.**	✓ Students are able to discuss the basic needs of plants and animals. Example: Use concrete examples to sort living and non-living things. Have examples available and observable in the classroom (non-pollen plants, fish, snails, insects, worms, rocks/sand, sea shells, etc.). Example: Use magazines or pictures to group things into living and non-living Example: Demonstrate what happens to plants after a week or two of not watering.			

		✓ Students are able to compare size and shape of living things. Example: Gather and sort a variety of leaves from local trees and plants. Example: Order a variety of mammals from smallest to largest (mouse, coyote, buffalo). + Students are able to classify animals. Example: Zoo, farm, wild			

Indicator 2: Analyze various patterns and products of natural and induced biological change.

Note: These skills should be taught and practiced although mastery is not expected until a later grade level.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
		✓ Recognize similarities and differences between animal offspring and their parents. Example: matching adults to babies using pictures of animals or of students and families. Example: Caterpillar, chrysalis, butterfly.			

Indicator 3: Analyze how organisms are linked to one another and the environment.

Note: These skills should be taught and practiced although mastery is not expected until a later grade level.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
		✓ Students are able to explore the local habitat. Example: Conduct nature walks around schoolyard and neighborhood looking for specific examples of a variety of living things (plants, evidence of animals).			

Kindergarten Life Science
Performance Descriptors

Advanced	**Kindergarten students performing at the advanced level:** • identify basic needs of plants and animals; • compare size and shape of living things; • identify similarities between adult animals and their offspring.
Proficient	**Kindergarten students performing at the proficient level:** • sort living from non-living things.
Basic	**Kindergarten students performing at the basic level:** • identify pictures of living things.

Kindergarten Earth/Space Science

Indicator 1: Analyze the various structures and processes of the Earth system.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
(Comprehension)	**K.E.1.1. Students are able to describe simple Earth patterns in daily life.**	Examples: weather observations, seasons, night and day ✓ Explore rocks, sand, water, and soil. Examples of tools and materials to use include sand and water table, sifters, screens.			

Indicator 2: Analyze essential principles and ideas about the composition and structure of the universe.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
	(Mastery of this indicator does not emerge until third grade.)				

Kindergarten Earth/Space Science
Performance Descriptors

Advanced	**Kindergarten students performing at the advanced level:** • identify the seasons.
Proficient	**Kindergarten students performing at the proficient level:** • describe simple Earth patterns in daily life.
Basic	**Kindergarten students performing at the basic level:** • name a difference between day and night and between summer and winter.

Kindergarten Science, Technology, Environment, and Society

Indicator 1: Analyze various implications/effects of scientific advancement within the environment and society.

Note: These skills should be taught and practiced in grade-level study of Physical, Life, and Earth/Space Science although mastery is not expected at these grade levels.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources	Technology
		✓ Students are able to recognize technology in school, home, and community. Example: Recognize computers, pencils, refrigerators, Velcro, fire trucks as technology. ✓ Care for the environment about the school. Example: Pick up litter on the playground and around the school.			**Students understand the history and progression of technology in relation to the development and design of future technology.** K.NC.1.1 : Identify three human-made objects Example: computer, telephone • Identify tools as technology • Definition of a tool

		✓ Recognize ways to reuse various materials. Example: Reuse materials in art projects like paper, milk cartons, egg cartons, newspapers, etc. Example: Use both sides of a sheet of paper.			

Indicator 2: Analyze the relationships/interactions among science, technology, environment, and society.

Bloom's Taxonomy Level	Standard	Supporting Skills	Assessments	Resources
	(Mastery of this indicator does not emerge until fifth grade.)			

Kindergarten Science Technology, Environment, and Society
Performance Descriptors

Note: At the K-2 level, the teachers need to focus on observing and collecting information about the progress students are making related to the checkmark statements. The skills and concepts addressed in this goal are to be included across the other goals. Appropriate scientific instruction should provide students the opportunity to actively engage in scientific investigations.