

K-4 Physical Science — Cylinder Key:

SP1 = Milky Way Starfield
SP8 = Moon

SP4 = Deep Sky Objects

SP5 = Solar System/Galaxy

SP6 = Celestial Coordinates

SP7 = Radio Sky

K-4 Physical Science Standards and the corresponding STARLAB Cylinders that help meet those standards						
Properties of Objects and Materials	SP1	SP4	SP5	SP6	SP7	SP8
Objects have many observable properties, including size, weight, shape, color, temperature, and the ability to react with other substances. Those properties can be measured using tools, such as rulers, balances, and thermometers.	✓	✓	✓		✓	✓
Position and Motion of Objects						
The position of an object can be described by locating it relative to another object or the background.	✓	✓	✓	✓		
An object's motion can be described by tracing and measuring its position over time.	✓	✓	✓	✓		
Light, Heat, Electricity, and Magnetism						
Light travels in a straight line until it strikes an object. Light can be reflected by a mirror, refracted by a lens, or absorbed by the object.	✓		✓			✓

K-4 Life Science — Cylinder Key:

OS1 = Biological Cell

OS2 = Bird Migration

SS2 = Lewis & Clark Celestial Navigation

K-4 Life Science Standards and the corresponding STARLAB Cylinders that help meet those standards			
The Characteristics of Organisms	OS1	OS2	SS2
Organisms have basic needs. For example, animals need air, water, and food; plants require air, water, nutrients, and light. Organisms can survive only in environments in which their needs can be met. The world has many different environments, and distinct environments support the life of different types of organisms.		✓	
The behavior of individual organisms is influenced by internal cues (such as hunger) and by external cues (such as a change in the environment). Humans and other organisms have senses that help them detect internal and external cues.		✓	
Life Cycles of Organisms			
Plants and animals have life cycles that include being born, developing into adults, reproducing, and eventually dying. The details of this life cycle are different for different organisms.	✓		
Plants and animals closely resemble their parents.	✓		
Organisms and Their Environment			
An organism's patterns of behavior are related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and resources, and the physical characteristics of the environment. When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.		✓	✓

K-4 Earth and Space Science — Cylinder Key:

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|----------------------------------|--|-----------------------|-------------------------------|
| SP1 = Milky Way Starfield | SP2 = Urban Starfield | SP3 = Constellations | SP5 = Solar System/Galaxy |
| SP6 = Celestial Coordinates | SP8 = Moon | MY1 = Greek Mythology | MY2 = African Mythology |
| MY3 = Ancient Egyptian Mythology | MY4 = Native American Mythology | MY5 = Navajo Skies | MY6 = Ancient Chinese Legends |
| MY7 = Ancient Chinese Seasons | MY8 = Lapp/Samí Mythology | MY9 = Hindu Mythology | MY10 = Inuit Starlore |
| SS1 = Maya Skies | SS2 = Lewis & Clark Celestial Navigation | | SS4 = Polynesian Voyaging |
| ES2 = Plate Tectonics | ES3 = Ocean Currents | ES4 = Weather | |

K-4 Earth and Space Science Standards and the corresponding STARLAB Cylinders that help meet those standards																							
Properties of Earth Materials	SP 1	SP 2	SP 3	SP 5	SP 6	SP 8	MY 1	MY 2	MY 3	MY 4	MY 5	MY 6	MY 7	MY 8	MY 9	MY 10	SS 1	SS 2	SS 4	ES 2	ES 3	ES 4	
Fossils provide evidence about the plants and animals that lived long ago and the nature of the environment at that time.																						✓	
Objects in the Sky																							
The sun, moon, stars, clouds, birds, and airplanes all have properties, locations, and movements that can be observed and described.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
The sun provides the light and heat necessary to maintain the temperature of the earth.				✓																		✓	✓
Changes in the Earth and Sky																							
The surface of the earth changes. Some changes are due to slow processes, such as erosion and weathering, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.																					✓		
Weather changes from day to day and over the seasons. Weather can be described by measurable quantities, such as temperature, wind direction and speed, and precipitation.	✓																						✓
Objects in the sky have patterns of movement. The sun, for example, appears to move across the sky in the same way every day, but its path changes slowly over the seasons. The moon moves across the sky on a daily basis much like the sun. The observable shape of the moon changes from day to day in a cycle that lasts about a month.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			

K-4 Science in Personal and Social Perspectives— Cylinder Key:

ES1 = Earth
SS3 = The Civil War Sky

ES2 = Plate Tectonics
OS2 = Bird Migration

ES5 = Geocentric Earth

SS2 = Lewis and Clark Celestial Navigation

K-4 Science in Personal and Social Perspectives Standards and the corresponding STARLAB Cylinders that help meet those standards						
Types of Resources	ES1	ES2	ES5	SS2	SS3	OS2
Resources are things that we get from the living and nonliving environment to meet the needs and wants of a population.	✓	✓	✓		✓	✓
Some resources are basic materials, such as air, water, and soil; some are produced from basic resources, such as food, fuel, and building materials; and some resources are nonmaterial, such as quiet places, beauty, security, and safety.	✓	✓	✓		✓	✓
The supply of many resources is limited. If used, resources can be extended through recycling and decreased use.	✓	✓	✓		✓	✓
Changes in Environments						
Environments are the space, conditions, and factors that affect an individual's and a population's ability to survive and their quality of life.	✓		✓			✓
Changes in environments can be natural or influenced by humans. Some changes are good, some are bad, and some are neither good nor bad. Pollution is a change in the environment that can influence the health, survival, or activities of organisms, including humans.	✓	✓	✓	✓		
Some environmental changes occur slowly, and others occur rapidly. Students should understand the different consequences of changing environments in small increments over long periods as compared with changing environments in large increments over short periods.	✓	✓	✓			