

Prekindergarten – Science Competencies

The purpose of this document is to clarify what students should know and be able to do each quarter (Q).

Competencies	Q 1	Q 2	Q 3	Q 4
C1 - Physical Science The student observes, investigates, and describes the properties of objects, position and motion of objects, and the different sources of energy.	X	X	X	X
C2 - Life Science The student observes, investigates, and describes the physical characteristics of organisms, life cycles of organisms, and describe the relationship between organisms and their environment.			X	X
C3 - Earth Science The student observes, investigates, and describes earth materials, objects in the sky, changes in the earth and sky, and how to care for the environment.		X		X

Learning Progression for Competency 1: Physical Science

The student observes, investigates, and describes the properties of objects, position and motion of objects, and the different sources of energy.

Developing	Progressing	Proficient
Uses senses to observe properties of objects. Observes and discusses the ways objects can move.	Uses senses and sensory language to describe properties of objects. Observes, measures, and describes the different ways objects can move.	Uses senses and sensory language to describe properties of objects and discuss their characteristics and capabilities. Observe, measure, describe the different ways objects move depending on different surfaces.
Success Criteria for Proficient in Physical Science: The student can: <ul style="list-style-type: none">• examine and describe different textures.• use 5 senses to describe a variety of natural and human made materials.• participate in investigations of objects.		

Learning Progression for Competency 2: Life Science

The student observes, investigates, and describes the physical characteristics of organisms, life cycles of organisms, and describe the relationship between organisms and their environment.

Developing	Progressing	Proficient
Describes the color size and shape of an organisms.	Describes the physical properties of plants and animals.	Compares the similarities and differences of the physical properties of living things and identifies needs of living things.
Discusses the life cycle of a human (baby, child, adult).	Observes, discusses, and records the life cycle of an organism.	Observes, discusses, and records the life cycle of an organism and match baby animals to adult animals using the correct terms and vocabulary.
Participates in conversations about natural environments in which living things live.	Observes, discusses, and records living things in their natural environment.	Discusses and explains how animals and humans depend on plants and other organisms.
Success Criteria for Proficient in Life Science: The student can: <ul style="list-style-type: none">• Use science tools to observe and discuss plants and animals.• Makes comparisons of living characteristics and non-living characteristics.• Discusses and compares the life cycle of an insect, pet, and human.• Keeps a science log of drawings and writing when observing living things.• Represent the ideas of natural environments with words (writing), pictures (drawings), orally, and or with different manipulatives (playdough, sand, etc.).		

Learning Progression for Competency 3: Earth Science

The student observes, investigates, and describes earth materials, objects in the sky, changes in the earth and sky, and how to care for the environment.

Developing	Progressing	Proficient
Observes and Identifies earth materials (soil, dirt, sand, rocks).	Discusses and compares earth materials using various science tools.	Discusses and explains ways earth materials are used for building things (houses, roads, schools, construction, etc.).
Identifies objects seen in the sky.	Engages in discussion about observing various objects in the sky (clouds and their shapes, the position of the sun during recess time, etc.).	Discusses the night sky and compares the objects with the day sky.
Success Criteria for Proficient in Earth Science: The student can: <ul style="list-style-type: none">• Use science tools to observe and discuss earth materials.• Creates a representation of the day and nighttime sky using various materials (finger paint, cotton balls, crayons, markers etc).• Compares and contrasts what is seen in the sky during the day and night.		