

Kindergarten Science Lee's Summit Curriculum Year at a Glance

Engineering, Technology, and Application of Science Unit 1: Launching Science	Life Science Unit 2: Plants and Animals and Their Environment	Physical Science Unit 3: Forces and Interactions	Earth and Space Science Unit 4: Weather
<p style="text-align: center;">Estimated Teaching Window: Aug - Sept <i>Engineering Standards should ALSO be ongoing and continually integrated into science lessons/units.</i></p> <p style="text-align: center;"><i>Standards should be recorded in Q1, 2, 3, 4</i> <i>The ETS standards are written as a K-2 grade span end point. Therefore, by the end of grade 2, students should be proficient in these skills.</i></p>	<p style="text-align: center;">Estimated Teaching Window: October - November <i>Standards should be recorded in Q2</i></p>	<p style="text-align: center;">Estimated Teaching Window: January - February <i>Standards should be recorded in Q3</i></p>	<p style="text-align: center;">Estimated Teaching Window: March - April <i>Standards should be recorded in Q4</i></p>
<p>Essential Standard: Students will understand and use scientific and engineering practices to conduct investigations and solve problems.</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> ● Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass), (MLS: K.PS1.A.1, Not in NGSS) ● Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. (MLS: K.ETS1.A.1, NGSS: K-2-ETS1-1) ● Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. (MLS: K.ETS1.B.1, NGSS: K-2-ETS1-2) ● Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. (MLS: K.ETS1.C.1, NGSS: K-2-ETS1-3) 	<p>Essential Standard: Students will investigate how living things interact and survive in their environment.</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> ● Use observations to describe patterns of what plants and animals (including humans) need to survive. (MLS:K.LS1.C.1, NGSS: K-LS1-1) ● Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. (MLS: K.ESS3.A.1, NGSS: K-ESS3-1) ● Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. (MLS: K.ESS3.A.1, NGSS: K-ESS3-1) ● With prompting and support, construct an argument using evidence for how plants and animals (including but not limited to humans) can change the environment to meet their needs. (MLS: K.ESS2.E.1, NGSS: K-ESS2-2) <p>Essential Standard: Students will understand how human behavior affects the world.</p> <p>Learning Target:</p> <ul style="list-style-type: none"> ● Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. (MLS: K.ESS3.C.1, NGSS: K-ESS3-3) <p>Essential Standard: Students will understand and use scientific and engineering practices to conduct investigations and solve problems.</p> <p>Learning Targets:</p> <p>Engineering, Technology, and Application of Science</p> <ul style="list-style-type: none"> ● Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass), (MLS: K.PS1.A.1, Not in NGSS) ● Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. (MLS: K.ETS1.B.1, NGSS: K-2-ETS1-2) 	<p>Essential Standard: Students will demonstrate an understanding of the interactions of pushes and pulls and explain their effect on objects.</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> ● Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. (MLS: K.PS2.A.1, NGSS: K-PS2-1) ● 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). (MLS: K.PS2.A.2, NGSS: K-PS2-2) <p>Essential Standard: Students will understand and use scientific and engineering practices to conduct investigations and solve problems.</p> <p>Learning Targets:</p> <p>Engineering, Technology, and Application of Science</p> <ul style="list-style-type: none"> ● Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. (MLS: K.ETS1.B.1, NGSS: K-2-ETS1-2) ● Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. (MLS: K.ETS1.C.1, NGSS: K-2-ETS1-3) 	<p>Essential Standard: Students will examine weather patterns and their effect on living things and the environment.</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> ● Make observations to determine the effect of sunlight on Earth's surface. (MLS: K.PS3.A.1, NGSS: K-PS3-1) ● With prompting and support, use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area. (MLS: K.PS3.B.1, NGSS: K-PS3-2) ● Use and share observations of local weather conditions to describe patterns over time. (MLS: K.ESS2.D.1, NGSS: K-ESS2-1) ● Identify patterns indicating relationships between observed weather data and weather phenomena (e.g., temperature and types of precipitation, clouds and amounts of precipitation). (MLS: 1.ESS2.D1, Not in NGSS) <p>Essential Standard: Students will understand and use scientific and engineering practices to conduct investigations and solve problems.</p> <p>Learning Targets:</p> <p>Engineering, Technology, and Application of Science</p> <ul style="list-style-type: none"> ● Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass), (MLS: K.PS1.A.1, Not in NGSS) ● Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. (MLS: K.ETS1.A.1, NGSS: K-2-ETS1-1) ● Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. (MLS: K.ETS1.B.1, NGSS: K-2-ETS1-2) ● Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. (MLS: K.ETS1.C.1, NGSS: K-2-ETS1-3)

