# Kindergarten Science Lee's Summit Curriculum Year at a Glance

## Engineering, Technology, and Application of Science

**Unit 1: Launching Science**

*Estimated Teaching Window: Aug - Sept*

**Learning Targets:**
- Students will understand and use scientific and engineering practices to conduct investigations and solve problems.

### Engineering, Technology, and Application of Science

- **Essential Standard:** Students will make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass).
- **Learning Targets:**
  - Make qualitative observations of the physical properties of objects (i.e., size, shape, color, mass).
  - 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.
  - 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.
  - Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

### Essential Standard:
- Students will understand and use scientific and engineering practices to conduct investigations and solve problems.
- **Learning Targets:**
  - Use observations to describe patterns of what plants and animals (including humans) need to survive.
  - Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.
  - Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.
  - 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.

### Essential Standard:
- Students will understand how human behavior affects the world.
- **Learning Target:**
  - Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

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## Life Science

**Unit 2: Plants and Animals and Their Environment**

*Estimated Teaching Window: October - November*

**Standards should be recorded in Q2, 2, 3, 4**

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- Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.
- 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.

### Essential Standard:
- Students will understand how human behavior affects the world.
- **Learning Target:**
  - Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

## Physical Science

**Unit 3: Forces and Interactions**

*Estimated Teaching Window: January - February*

**Standards should be recorded in Q3**

**Learning Targets:**
- 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.
- 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).
- Students will understand and use scientific and engineering practices to conduct investigations and solve problems.
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- **Learning Target:**
  - Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

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## Earth and Space Science

**Unit 4: Weather**

*Estimated Teaching Window: March - April*

**Standards should be recorded in Q4**

**Learning Targets:**
- Make observations to determine the effect of sunlight on Earth's surface.
- 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.
- Use and share observations of local weather conditions to describe patterns over time.
- Identify patterns indicating relationships between observed weather data and weather phenomena (e.g., temperature and types of precipitation, clouds and amounts of precipitation).
- Make observations to determine the effect of sunlight on Earth's surface.
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