

Kindergarten - Unit 1 Animals, Plants and the Environment

Big Ideas:

- Understand what plants and animals and humans need to survive.
- Understand the relationship between plant/animal needs and where they live.

Essential Questions:

- How do plants and animals change the environment in order to meet their needs?
- How can humans influence their environment?

Vocabulary: environment, living, nonliving, basic needs

Students who demonstrate understanding can:

K-LS2-1. Use observations to describe patterns of what plants and animals (including humans) need to survive [Clarification Statement: Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and that living things need water.]

K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.*[Clarification Statement: Examples of problems requiring a solution could include having a marble or other object move a certain distance, follow a particular path, and knock down other objects. Examples of solutions could include tools such as a ramp to increase the speed of the object and a structure that would cause an object such as a marble or ball to turn.] [Assessment Boundary: Assessment does not include friction as a mechanism for change in speed.]

The performance expectations above were developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<p>Analyzing and Interpreting Data Analyzing a data in K-2 builds on prior experience and progresses to collecting, recording and sharing observations.</p> <ul style="list-style-type: none"> • Use observations (firsthand or from media to describe patterns in the natural world in order to answer scientific questions (K-LS1-1). <p style="text-align: center;">-----</p> <p style="text-align: center;">Connections to the Nature of Science Scientific Knowledge is based on Empirical Evidence</p> <ul style="list-style-type: none"> • Scientists look for patterns and order when making observations about the world. (K-LS1-1) 	<p>LS1.C: Organization for Matter and energy Flow in Organisms</p> <ul style="list-style-type: none"> • All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1) 	<p>Patterns</p> <ul style="list-style-type: none"> • Patterns in the natural and human designed world can be observed and used as evidence. (K-LD!-1))

Connections to other DCIs in kindergarten:

N/A

Articulation of DCIs across grade-levels:

1.LS1.A (K-LS1-1); **2.LS2.A** (K-LS1-1); **3.LS2.C** (K-LS1-1); **3.LS4.B** (K-LS1-1); **5.LS1.C** (K-LS1-1); **5.LS2.A** (K-LS1-1)

Common Core State Standards Connections:

ELA/Literacy -

W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-PS2-1)

SL.K.3 Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (K-PS2-2)

Mathematics -

K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the