### Taco ‘Bout a 6 Plant Part Taco Party

#### Performance Expectations

<table>
<thead>
<tr>
<th>K-LS1-1</th>
<th>Use observations to describe patterns of what plants and animals (including humans) need to survive.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-ESS2-2</td>
<td>Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.</td>
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<tr>
<td>1-LS1-1</td>
<td>Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.</td>
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<tr>
<td>1-LS3-1</td>
<td>Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.</td>
</tr>
<tr>
<td>2-LS4-1</td>
<td>Make observations of plants and animals to compare the diversity of life in different habitats</td>
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</tbody>
</table>

#### Connections Between EP&Cs, CCCs, and SEPS

**Targeted Environmental Principles & Concept(s)**

Students should be developing an understanding:

**Principle III: Natural Systems Change in Ways that People Benefit from and can Influence.** Natural systems proceed through cycles that humans depend upon, benefit from, and can alter.

- Concept A. Natural systems proceed through cycles and processes that are required for their functioning.
- Concept B. Human practices depend upon and benefit from the cycles and processes that operate within natural systems.
- Concept C. Human practices can alter the cycles and processes that operate within natural systems.

**Targeted Disciplinary Core Idea(s)**

**K-LS1-1 Organization for Matter and Energy Flow in Organisms**

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-ESS2-2 Biogeology**

Plants and animals can change their environment.

**1-LS1-1 Structure & Function**

All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.

**1-LS3-1 Inheritance of Traits; Variation of Traits**

Young animals are very much, but not exactly like, their parents. Plants also are very much, but not exactly, like their parents; individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.

**2-LS4-1 Biodiversity and Humans**

There are many different kinds of living things in any area, and they...

#### Clarifications for DCIs

**Relevant EEI Units**

**Middle School Elementary School**

- K: The World Around Me, A Day In My Life
  - 1: Surviving and Thriving, Finding Shelter
  - 2: Alike and Different, Flowering Plants in Our Changing Environment
  - 3: Structures for Survival in a Healthy Ecosystem, Living Things in Changing Environments
  - 4: The Flow of Energy Through Ecosystems

One Cool Earth (OCE) supports the integration of Next Generation Science Standards (NGSS) three dimensional learning and the Environmental Principles & Concepts (EP&Cs) in their lesson planning. In recognition of A Blueprint for Environmental Literacy and the California State Board of Education, OCE uses the CA Science Framework.
3-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.

3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

4-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

MS-LS1 (LS1-6) Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms. (LS1-7) Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.

3-LS4-2 Natural Selection Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.

3-LS4-3 Adaptation For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.

4-LS1-1 Structure and Function Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.

MS-LS1 Organization for Matter and Energy Flow in Organisms Plants, algae (including phytoplankton), and many microorganisms use the energy from light to make sugars (food) from carbon dioxide from the atmosphere and water through the process of photosynthesis, which also releases oxygen. These sugars can be used immediately or stored for growth or later use. (MS-LS1-6) Within individual organisms, food moves through a series of chemical reactions in which it is broken down and rearranged to form new molecules, to support growth, or to release energy. (MS-LS1-7)
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