

## Standards-Based Project WET Activity Pool – Kindergarten

**Pool Title:** Plant and Animal Needs – (California Science Framework - Kindergarten, IS1, p: 109)

Students observe plants and animals directly and through books and media to discover patterns in what they need to survive They distinguish between plants and animals based on these needs They describe how organisms meet their needs using resources from their surroundings. (CSF, p: 109)

### Standards Pool:

**K-LS1-1.** Use observations to describe patterns of what plants and animals (including humans) need to survive.

**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.

**K-ESS3-3.** Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

**Anchoring Phenomenon:** Water affects where things live.

### Guiding Question(s):

- How do we know that something is alive?
- What do animals and plants need to survive?
- Does what they need affect where they live?

### California Environmental Principles and Concepts:

**Principle I** - The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services

**Principle II** - The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.

**Principle IV** - The exchange of matter between natural systems and human societies affects the long-term functioning of both

Performance Expectations <i>Investigative Phenomena</i>	Learning Targets by PE Dimensions	Learning Experience Connections	Common Core & Engineering/ Community Action Connections
<p><b>K-LS1-1.</b> Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p><i>How do we know that something is alive?</i></p>	<p><b>SEP: Analyze and Interpret Data</b> Students can use observations of images and first-hand experience to describe what plants need to grow.</p> <p><b>DCI: LS1.C: Organization for Matter and Energy Flow in Organisms</b> Students can demonstrate that plants need water and light to live and grow.</p> <p><b>CCC: Patterns</b> Students can describe differences between living and non-living things.</p>	<p><b>‘The Life Box’ (Project WET 2.0; p: 69)*</b></p> <ul style="list-style-type: none"> <li>- Students explore the properties of water, soil, light and air.</li> <li>- See detailed NGSS correlation on <a href="#">Project WET Portal</a> for additional suggestions for helping students elaborate on and apply the concepts and skills in this activity.</li> </ul>	<p><b>ELA:</b> W.K.7</p> <p><b>MATH:</b> K.MD.2</p> <ul style="list-style-type: none"> <li>- Students design pots or planting boxes to test how plants grow with or without water, soil, light or air.</li> </ul> <p>*Enhanced ECE version of activity can be found in Project WET ‘Getting Little Feet WET’ module – (‘Let It Grow’, p; 17)</p>
<p><b>K-LS1-1.</b> Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p><i>What do animals and plants need to survive?</i></p>	<p><b>SEP: Analyze and Interpret Data</b> Students can use observations to describe how their body and other living things need and use water.</p> <p><b>DCI: LS1.C: Organization for Matter and Energy Flow in Organisms</b> Students can describe how water is used in their bodies and why it is important to living things.</p> <p><b>CCC: Patterns</b> Students can use evidence from observing fresh vs. dried fruit as evidence on the importance of water.</p>	<p><b>‘Aqua Bodies’ (Project WET 2.0; p: 45)*</b></p> <ul style="list-style-type: none"> <li>- Students explore how water is important for their bodies to function.</li> <li>- Pair activity with ‘Aqua Notes’ - <a href="#">Project WET 2.0, p: 51</a>*</li> <li>- See detailed NGSS correlation on <a href="#">Project WET Portal</a> for additional suggestions for helping students elaborate on and apply the concepts and skills in this activity.</li> </ul>	<p><b>ELA:</b> W.K.7; SL.K-2.5, W.K-2.2, W.K-2.3</p> <p><b>MATH:</b> K.MD.2</p> <ul style="list-style-type: none"> <li>*Enhanced ECE version of activity can be found in Project WET ‘Getting Little Feet WET’ –‘Water We Made Of?, p; 12)</li> </ul>
<p><b>K-ESS3-1.</b> Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.</p> <p><i>Is there more land or water on Earth?</i></p>	<p><b>SEP: Develop and Use Models</b> Students can use a globe to show there is more water than land covering the surface of the Earth.</p> <p><b>DCI: ESS3.A: Natural Resources</b> Students can show that water and land resources cover the surface of the Earth.</p> <p><b>CCC: Systems and System Models</b> Students can show that the ocean is the dominant feature on the Earth’s surface.</p>	<p><b>‘Blue Planet’ (Project WET 2.0; p: 125)</b></p> <ul style="list-style-type: none"> <li>- Students compare the amount of water vs. land covering the surface of the Earth.</li> <li>- Activity can be paired with California EEI unit Kindergarten: <a href="#">‘The World Around Me’</a></li> </ul>	<p><b>ELA:</b> SL.K.5</p> <p><b>MATH:</b> MP.2; MP.4; K.CC.1-3; K.CC.4-5; K.CC.6-7</p> <ul style="list-style-type: none"> <li>*Enhanced ECE version of activity can be found in Project WET ‘Getting Little Feet WET’ module – (‘Our Blue Planet’, p; 21)</li> </ul>

<p><b>K-LS1-1. / K-ESS3-1.</b> Use observations &amp; a model to describe patterns of what plants and animals (including humans) need to survive &amp; the relationship between their and the places they live.</p> <p><i>How does water affect where plants or animals live on Earth?</i></p>	<p><b>SEP: Develop and Use Models</b> Students can match evidence from images to show where plants and animals may live on a map or globe.</p> <p><b>DCI: ESS3.A: Natural Resources</b> Students can describe the natural resources plants and animals need and where they are located on a map or globe.</p> <p><b>CCC: Systems and System Models</b> Students can describe how plants or animals use the resources that are found in a given location on a map or globe.</p>	<p><b>‘Water Address’ (Project WET Portal)</b></p> <ul style="list-style-type: none"> <li>- Students identify where plants or animals live in California based on evidence in images and features found on the <a href="#">California EEI Habitats</a> or a similar map.</li> <li>- Activity blends NGSS components of both PEs.</li> <li>- See detailed NGSS correlation on <a href="#">Project WET Portal</a> for additional suggestions for helping students elaborate on and apply the concepts and skills in this activity.</li> <li>- Activity can be paired with California EEI unit – Grade 1 – <i>‘Surviving and Thriving’</i></li> </ul>	<p><b>ELA:</b> SL.K.5; W.K.7</p> <p><b>MATH:</b></p>
<p><b>K-ESS3-3.</b> Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.</p> <p><i>How can humans affect plants and animals?</i></p>	<p><b>SEP: Obtain, Evaluate and Communicate Information</b> Students can develop ideas to keep litter and other trash from getting carried downstream or into drains by water.</p> <p><b>DCI: ESS3.C: Human Impacts on Earth Systems</b> Students can describe how things people throw away can be carried downstream or drains by flowing water.</p> <p><b>CCC: Cause and Effect</b> Students can describe how flowing water moves things downstream or into drains.</p>	<p><b>‘Rainy Day Hike’ (K-2 Option - Project WET Portal)</b></p> <ul style="list-style-type: none"> <li>- Students design small boats to follow the flow of water around the schoolyard.</li> <li>- See detailed NGSS correlation on <a href="#">Project WET Portal</a> for additional suggestions for helping students elaborate on and apply the concepts and skills in this activity.</li> </ul>	<p><b>ELA:</b> RI.K.1; W.K.1; W.K.2</p> <p><b>MATH:</b></p> <ul style="list-style-type: none"> <li>- Students design small boats they will use to follow water flow.</li> <li>- Students discuss how to reduce the amount of litter or harmful materials in water on from leaving the schoolyard.</li> </ul>
<p><b>K-ESS3-3.</b> Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.</p> <p><i>What can humans do to reduce their effect on plants and animals?</i></p>	<p><b>SEP: Obtain, Evaluate and Communicate Information</b> Students can explain how people choosing to reduce their trash and properly disposing of it can help plants and animals (including humans) on the schoolyard and downstream.</p> <p><b>DCI: ESS3.C: Human Impacts on Earth Systems</b> Students can demonstrate how to reduce the amount of trash by choosing other</p>	<p><b>‘There is No Away!’ (Project WET 2.0; p: 453)</b></p> <ul style="list-style-type: none"> <li>- Students explore a collection of ‘clean trash’ and sort items by their properties – glass, plastic, paper or cardboard, tin or aluminum.</li> <li>- See detailed NGSS correlation on <a href="#">Project WET Portal</a> for additional suggestions for helping students elaborate on and apply the concepts and skills in this activity.</li> </ul>	<p><b>ELA:</b> SL.K.5</p> <p><b>MATH:</b> K.MD.2; K.MD.3</p>

	<p>alternatives.</p> <p><b>CCC: Cause and Effect</b> Students can show how much less trash is created when people use other alternatives.</p>		
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