

**Draft Science Example S4B2.1.1a**



<b>PA Reporting Category:</b> Biological Sciences		
<b>PA Academic Standards:</b>		
<ul style="list-style-type: none"> <li>Science and Technology and Engineering Education 4.7.4.B</li> </ul>		
<b>Assessment Anchor:</b> S4.B.2 – Continuity of Life		
<b>Descriptor:</b> S4.B.2.1 Identify and explain how adaptations help organisms to survive.		
<b>Eligible Content:</b> S4.B.2.1.1 Identify characteristics for plant and animal survival in different environments (e.g., wetland, tundra, desert, prairie, deep ocean, forest).		
<b>Alternate Eligible Content Code:</b> S4B2.1.1a		
<b>Alternate Eligible Content:</b> Identify plants or animals that live in different environments (limited to grasslands, tundra, desert, aquatic, forest, and rainforest).		
<b>Alternate Eligible Content - Coded</b>		
<b>Know</b>	<b>DO</b>	<b>Context</b>
<ul style="list-style-type: none"> <li>Plants OR Animals</li> </ul>	<ul style="list-style-type: none"> <li>Identify</li> </ul>	<ul style="list-style-type: none"> <li>That live in different environments (limited to grasslands, tundra, desert, aquatic, forest, and rainforest).</li> </ul>
<b>Intent Statement</b>	Determine plants or animals that live in different places (e.g., cactus lives in deserts, fish lives in water, bear lives in forest, reindeer lives in tundra).	
<b>Definition Notes</b>	<ul style="list-style-type: none"> <li><b>Environment</b> – the circumstances, objects, or conditions by which one is surrounded</li> <li><b>Grassland</b> – an ecological community in which the characteristic plants are grasses</li> <li><b>Tundra</b> – a level or rolling treeless plain that is characteristic of arctic and subarctic regions, consists of black mucky soil with a permanently frozen subsoil, and has a dominant vegetation of mosses, lichens, herbs, and dwarf shrubs; also: a similar region confined to mountainous areas above timberline</li> <li><b>Desert</b> – arid land with usually sparse vegetation; especially: such land having a very warm climate and receiving less than 25 centimeters (10 inches) of sporadic rainfall annually</li> <li><b>Aquatic</b> – growing or living in or frequenting water</li> <li><b>Forest</b> – a dense growth of trees and underbrush covering a large tract</li> <li><b>Rainforest</b> – a tropical woodland with an annual rainfall of at least 100 inches (254 centimeters) and marked by lofty broad-leaved evergreen trees forming a continuous canopy —called also tropical rain forest</li> </ul> <p>Definitions from <a href="https://www.merriam-webster.com/dictionary/">https://www.merriam-webster.com/dictionary/</a></p>	

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**Most Complex Content Level**

**Content Target:** Given tundra and desert definitions, select the plants that grow and thrive in these environments.

**Example:**



- Here are some plant names.
- Select the plants that grow in tundras and list them under the heading “Tundra”.
- Select the plants that grow in deserts and list them under the heading “Desert”. Remember there may be some that do not belong in either category.

PLANTS		
Arctic moss  [1]	Cactus 	Banana 
Palm Tree 	Apple tree 	Sage brush 

Arctic Tundra	Desert

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**Mid-Complex Content Level**

**Content Target:** Given Forest and Aquatic definitions/descriptions and visuals/objects, select the animals that live in each respective place.

**Example:**

- Use a picture of a forest familiar to the student (if available).
- Use a picture of a natural water environment familiar to the student (if available).



**Aquatic:** Living in water.

**Forest:** Lots of trees, bushes, and plants growing together in a large, shaded area.

- Select the animals from the box below and place them in the correct column under the environment (place **IN** which they live).
- Make choices of animals that are familiar/meaningful for the student. Add one choice that doesn't belong.

**Animals**

<p>Frog</p> 	<p>Deer</p> 	<p>Tadpole</p> 	<p>Fox</p> 	<p>Lizard</p> 
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<p><b>Forest</b></p> 	<p><b>Aquatic (water)</b></p> 

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### Least Complex Content Level

**Content Target:** Given an environment that is meaningful and familiar to the student, select the animals that make their home there.

**Example:**

- Uses pictures/objects and environment representations that are meaningful to the student.
- Which animals live in the water?

