****

 **Animal Needs**

|  |
| --- |
| **Estimated Time:** 4, 30-minute class sessions |
| **GSE Standard(s) and Element(s):****S1L1. Obtain, evaluate, and communicate information about the basic needs of plants and animals**.b. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).c. Design a solution to ensure that a plant or animal has all of its needs met.**Supporting Standards:****MGSE1.G.3** Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. |
| **Science and Engineering Practices:****Analyzing and Interpreting Data**Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. | **Disciplinary Core Idea:****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. |
| **Crosscutting Concepts:****Patterns**Patterns in the natural and human designed world can be observed and used as evidence. |
| **Authentic Scenario (Phenomena):**Show students a video of a Humpback whale bubble feeding:<https://www.ngssphenomena.com/#/humpbacks-bubble-feeding/> | **Vocabulary:*** need
* want
* air
* food
* water
* shelter
 |
| **Guiding Questions:**What are an animal’s basic needs?How can I compare and contrast needs of plants and animals? |
| **Materials Needed:*** A brown paper bag with a variety of the following inside:
	+ Small toy animals
	+ Small stuffed animals
	+ Pictures of animals
	+ A small doll or a picture of a human
* Chart Paper/Whiteboard
* White paper plates (one per student)
* Copies of Plants and Animals Cards
* Crayons, markers, or colored pencils
 | **Safety Considerations:*** **N/A**
 |
| **Technology Integration:*** Device with Internet access for [Animal Needs Song](http://www.bing.com/videos/search?q=animal+needs&&view=detail&mid=A76505CD8E7D453653E7A76505CD8E7D453653E7&rvsmid=09826330D894D03C784C09826330D894D03C784C&fsscr=0&FORM=VDFSRV)
 |

|  |  |
| --- | --- |
| **5E Stage** | **Student Activities**How will students engage actively in the three dimensions throughout the lesson?**Teacher Activities**How will the teacher facilitate and monitor student learning? |
| **Engage** | Show students a video of a Humpback whale bubble feeding:<https://www.ngssphenomena.com/#/humpbacks-bubble-feeding/>Ask, “What do you notice? What do you wonder?”Tell the students that Humpback whales eat very small prey compared to their body size. They need to consume about half a ton per day to meet their needs. They have some interesting adaptations that help them survive.Ask, “Why is it important for the whale to do this? Why do they need the food? What else do animals need to survive?” |
| **Explore** | Display the brown paper bag (with items already inside) in the front of the classroom for students to see. The teacher should explain to the students that even though they probably know a lot about animals, there are animals inside of the paper bag that they can learn more from. The teacher should tell the class that as she/he pulls each animal from the bag, they should raise their hand to share something that they already know about that particular animal. As students share what they know about those animals, be sure to ask them about the needs of those animals as well. As you continue to discuss each animal’s needs, be sure that students are understanding that each and every animal you are discussing needs air, water, food, and shelter. After the teacher goes through all the animals in the paper bag, she/he should lead the class to make a list (on chart paper or a whiteboard) of what they determined each animal needs to survive. |
| **Explain** | Review animals’ needs with the [Animal Needs Song](http://www.bing.com/videos/search?q=animal+needs&&view=detail&mid=A76505CD8E7D453653E7A76505CD8E7D453653E7&rvsmid=09826330D894D03C784C09826330D894D03C784C&fsscr=0&FORM=VDFSRV). Students can listen to this once, then sing along the second time it is played. This will help students remember the four basic needs of animals. After playing and singing the song, the teacher will prompt the class with questions such as: * What are some of the things you, as a human, need to stay healthy? (Food, water, air, shelter)
* What is the difference between a need and a want? (a need is something a living thing has to have in order to survive, while a want is something living things do not necessarily need in order to survive)
* Is a human an animal? (yes)

The teacher will guide students to the correct answers. |
| **Elaborate** | After discussing the needs of animals, students can work to complete the Plants and Animals Needs Venn diagram to determine patterns and relationships in the needs of plants and animals. |
| **Evaluate** | Give each student a paper plate. Students will need to divide the paper plate into four sections by folding or drawing. Next, have each student label the sections of their paper plate: Section 1 - FOOD; Section 2 - WATER; Section 3 - SHELTER; and Section 4 - AIR. Next, have students pick an animal or plant from the Plants and Animals Cards. Have them glue this to the center of their paper plate. Then, students can draw or list the needs in each section for that plant or animal. When all students are finished with their paper plates, allow them time to share (communicate) their drawings with a small group or with the entire class. |

*Adapted from* [*Virginia DOE*](http://www.doe.virginia.gov/testing/sol/standards_docs/science/2010/lesson_plans/grade1/life_processes/sess_1-5a.pdf)*: Science Enhanced Scope and Sequence – Grade 1*