

## First Grade Science

| <b>Structures and Functions of Plants and Animals</b> |   |
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| <b>Performance Expectations</b>                       | <p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.</li> <li>• Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.</li> </ul>   |
| <b>Scientific Core Ideas</b>                          | <p>Students who demonstrate understanding can describe that:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive.</li> <li>• Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs.</li> <li>• Young animals are very much, but not exactly, like their parents. Plants also are very much, but not exactly, like their parents.</li> <li>• Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.</li> </ul> |
| <b>Language Arts Expectations</b>                     | <p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> <li>• Ask and answer questions about key details in a non-fiction text.</li> <li>• Identify the main topic and retell key details of a non-fiction text.</li> <li>• With prompting and support, read informational texts appropriately complex for first grade.</li> </ul>  |
| <b>Mathematics Expectations</b>                       | <p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> <li>• Reason abstractly and quantitatively.</li> <li>• Use appropriate tools strategically to examine plants and animals.</li> <li>• Draw pictures to represent data.</li> <li>• Solve simple science related problems that emphasize: put-together, take-apart, and compare problems using information</li> </ul>  |
| <b>Engineering Expectations</b>                       | <p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> <li>• Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</li> <li>• Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</li> <li>• Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each perform.</li> </ul>  |
| <b>Information and Technology Literacy</b>            | <p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> <li>• Ask and answer such questions such as <i>who, what, where, when, why, and how</i> to demonstrate understanding.</li> <li>• Use a variety of digital tools to produce, publish, and collaborate with peers.</li> </ul>   |

\*Words in this synopsis were taken directly from the Next Generation of Science Standards (NGSS).