

First Grade Science

	Force and Motion
Performance Expectations	<p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> • Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. • Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.
Scientific Core Ideas	<p>Students who demonstrate understanding can describe that:</p> <ul style="list-style-type: none"> • Pushes and pulls can have different strengths and directions. • Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. • When objects touch or collide, they push on one another and can change motion. • A bigger push or pull makes things speed up or slow down more quickly. • A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions.
Language Arts Expectations	<p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> • Write an explanatory text • Write a sequence of instructions
Mathematics Expectations	<p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> • Use appropriate tools strategically. • Order objects by length; compare the length of two objects. • Draw a picture to represent data. • Solve simple put-together, take-apart, and compare problems using information presented in a picture.
Engineering Expectations	<p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> • 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. • 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. • Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each perform.
Information and Technology Literacy	<p>Students who demonstrate understanding can:</p> <ul style="list-style-type: none"> • Ask and answer such questions such as <i>who, what, where, when, why, and how</i> to demonstrate understanding. • Use a variety of digital tools to produce, publish, and collaborate with peers.

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