



Content Area: Science

Grade Level: 3

Course Name: Science 3

**Course Description:** Students explore three non-sequential modules throughout the course of the year. The skills and concepts embedded into these units are tied to the New York State 5th Grade Science Assessment, however there is no state assessment at the end of this grade level.

Units Length of Time	Description
How Can We Predict Patterns of Motion? (8 weeks)	<p>Students explore how objects can exert forces on other objects, and predict an object's future motion based on observations of patterns of motion. Throughout portions of this unit, students will:</p> <ul style="list-style-type: none"><li>- manipulate model swings and balls and see that contact forces can start and stop motion.</li><li>- practice forming scientific questions and carry out investigations to explain what happens when balanced and unbalanced forces act on objects at rest.</li><li>- obtain information about bicycles and clock pendulums and describe the repeating patterns of motion that these, and other, objects exhibit.</li><li>- observe examples of non-contact forces causing objects to move and investigate these cause-and-effect relationships.</li><li>- identify problems and how criteria and constraints are important factors when designing solutions.</li><li>- investigate how magnets affect the motion of a steel pendulum.</li><li>- work in groups to ask a scientific question, plan and carry out an investigation, and use their data to predict the pattern of motion of a model swing that interacts with magnets.</li></ul>

Units Length of Time	Description
How Do Weather and Climate Affect Our Lives? (8 weeks)	<p>In this module, students learn why and how scientists measure weather. Throughout portions of this unit, students will:</p> <ul style="list-style-type: none"> <li>- explore and use a thermometer, anemometer, wind vane, and rain gauge to measure the weather outside their school.</li> <li>- use past weather data to identify annual temperature patterns in their school's location.</li> <li>- explore climates around the world and compare them to their school's location.</li> <li>- identify problems caused by hazardous weather and use evidence to identify the type of weather that caused each problem.</li> <li>- design and build a roof to protect from one type of hazardous weather: heavy precipitation.</li> <li>- analyze and interpret patterns in climate data to recommend the best time and location for a kids' soccer tournament.</li> </ul>
How Can We Protect Animals When Their Habitat Changes? (8 weeks)	<p>In this module, students will explore the topic of what animals need to survive and how animals are affected when their habitat changes. Throughout portions of this unit, students will:</p> <ul style="list-style-type: none"> <li>- collect evidence from videos to make a claim that animals need air, food, water, and shelter to survive.</li> <li>- design and test different classroom habitats where live roly polys can survive.</li> <li>- analyze data from camera traps on animals living in different habitats.</li> <li>- read about marine habitats and make a claim about how well a marine animal would survive in a different habitat.</li> <li>- compare and contrast an extinct animal with a living animal using information from a reading.</li> <li>- use games to simulate change in habitats and to make a claim that when habitats change, animal populations can go down.</li> <li>- apply what they have learned about science and engineering to build and test a tunnel that can stop salamanders from being killed when crossing roads.</li> </ul>

NYS Standard	Links
	Click <a href="#">here</a> to learn more about the New York State Science Learning Standards!