

Focus: Students will explore the relationships between forces and motion. Students will use data to analyze weather patterns around the world. Students will evaluate the effectiveness of organisms' adaptations for survival in their environments. Students will utilize engineering design standards as methods of inquiry.

Forces and Interactions		District/NGSS Standard
3.SC.1	Understanding: Students will investigate the effects of balanced and unbalanced forces on the motion of an object, and apply scientific ideas of electric and magnetic interactions between two objects. Students who demonstrate understanding will be able to:	
3.SC.1.1	Demonstrate that force has strength and direction.	District
3.SC.1.2	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	3-PS2-1
3.SC.1.3	Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	3-PS2-2
3.SC.1.4	Investigate and summarize properties of magnetism.	District
3.SC.1.5	Ask questions to determine cause-and-effect relationships of electric or magnetic interactions between two objects not in contact with each other.	3-PS2-3
3.SC.1.6**	Define a simple design problem that can be solved by applying scientific ideas about magnets.	3-PS2-4
Interdependent Relationships in Ecosystems		
3.SC.2	Understanding: Students will gather information about organisms past and present to analyze factors contributing to a species' survival. Students who demonstrate understanding will be able to:	
3.SC.2.1	Construct an argument that some animals form groups that help members survive.	3-LS2-1
3.SC.2.2	Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.	3-LS4-1
3.SC.2.3	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well and some cannot survive at all.	3-LS4-3
3.SC.2.4	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.	3-LS4-4
Inheritance and Variation of Traits: Life Cycles and Traits		
3.SC.3	Understanding: Students will describe that organisms have unique and diverse life cycles which follow the same pattern. Students will analyze and draw conclusions about how the environment and inherited traits influence organisms. Students who demonstrate understanding will be able to:	
3.SC.3.1	Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction and death.	3-LS1-1
3.SC.3.2	Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.	3-LS3-1
3.SC.3.3	Use evidence to support the explanation that traits can be influenced by the environment.	3-LS3-2
3.SC.3.4	Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates and reproducing.	3-LS4-2
Weather and Climate		
3.SC.4	Understanding: Students will collect, organize and interpret data to examine seasonal weather patterns and climates, predict typical weather conditions, and evaluate a design solution for a specified weather-related hazard. Students who demonstrate understanding will be able to:	

3.SC.4.1	Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.		3-ESS2-1
3.SC.4.2	Obtain and combine information to describe climates in different regions of the world.		3-ESS2-2
3.SC.4.3**	Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard (e.g., heavy rain or snow, strong winds, lightning, flooding along riverbanks).		3-ESS2-3
Engineering Design			
3.SC.5	Understanding: Students will use engineering design, including identifying criteria and constraints, to solve problems and evaluate the effectiveness of their solutions. Students who demonstrate understanding will be able to:		
3.SC.5.1	Analyze a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.		3-5-ETS-1
3.SC.5.2	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.		3-5-ETS-2
3.SC.5.3	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.		3-5-ETS-3
** signifies a content standard that also meets Engineering Design standards			