

## THIRD GRADE SCIENCE

### *Science and Engineering Practices*

- Asking Questions or Defining Problems
- Developing and Using Models
- Planning and Carrying Out Investigations
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Constructing Explanations and Designing Solutions
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information

*Weather and Climate Patterns: Weather is a day-by-day variation of the atmosphere's condition on a local scale and climate describes a range of a regions typical weather conditions over a long period of time.*

- Analyze and interpret data to reveal patterns that indicate typical weather conditions expected during a particular season.
- Obtain and communicate information to describe climate patterns in different regions of the world.
- Design a solution that reduces the effects of a weather-related hazard.

*Effect of Traits on Survival: Organisms have unique life cycles and characteristics, inherited by their parents and influenced by the environment, but they all follow a pattern of birth, growth, reproduction, and death.*

- Develop and use models to describe changes that organisms go through during their life cycles.
- Analyze and interpret data to identify patterns of traits that plants and animals have inherited from parents.
- Construct an explanation that the environment can affect the traits of an organism.
- Construct an explanation showing how variations in traits and behaviors can affect the ability of an individual to survive and reproduce.
- Engage in argument from evidence that in a particular habitat (system) some organisms can survive well, some survive less well, and some cannot survive at all.
- Design a solution to a problem caused by a change in the environment that impacts the types of plants and animals living in that environment.

*Force Affects Motion: Both contact and non-contact forces that are unbalanced can cause predictable changes in an object's speed or directions of motion.*

- Plan and carry out investigations that provide evidence of the effects of balanced and unbalanced forces on the motion of an object.
- Analyze and interpret data from observations and measurements of an object's motion to identify patterns in its motion that can be used to predict future motion.
- Construct an explanation that the gravitational force exerted by Earth causes objects to be directed downward, toward the center of the spherical Earth.
- Ask questions to plan and carry out an investigation to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.
- Design a solution to a problem in which a device functions by using scientific ideas about magnets.

