



|| 3rd Grade Science Overview

The performance standards in third grade help students formulate answers to questions such as: How do equal and unequal forces on an object affect the object? What patterns can we use to predict to motion of an object? How do objects affect each other without touching? How can magnets be used to solve problems? Why do some organisms live in groups and others do not? How are plants and animals both similar to and different from their parents? What happens to organisms when their environment changes? What is typical weather in different parts of the world and during different times of the year? How can the impact of weather-related hazards be reduced?

PHYSICAL SCIENCE: Forces act on objects and have both a strength and a direction. An object at rest typically has multiple forces acting on it, but they are balanced, resulting in a zero net force on the object. Forces that are unbalanced can cause changes in an object's speed or direction of motion. Students will plan and conduct an investigation to identify patterns of an object's motion in various situations. Students will use their data to predict the motion of an object due to a change in forces acting on it. Forces are exerted when objects come in contact with each other; however, some forces can act on objects that are not in contact. Electric and magnetic forces between a pair of objects can act at a distance. Students will ask questions and experiment to find the cause and effect relationships between the strength of these non-contact forces and properties of and the distance between the objects. Students will identify a problem that can be solved with magnets and describe solutions to that problem.

LIFE SCIENCE: There are many examples of animals that live in groups. Different animals live in groups for different reasons such as obtaining food, defense, and coping with change. Students will identify a claim related to animals living in a group to help members survive and use evidence and reasoning to support their claim. Plants and animals inherit characteristics from their parents. Different individuals vary in how they look and function because they have different inherited information. Students will analyze and organize data including traits of plant and animal parents and offspring to identify and describe patterns in the inheritance of traits. Many characteristics are influenced by both inheritance and the environment. Students will identify and describe traits that can be influenced by the environment and use evidence to support cause and effect relationships in the differences in traits.

EARTH SCIENCE Weather is a minute-by-minute, day-by-day variation of the atmosphere's condition on a local scale. Scientists record patterns of weather across different times and areas so that they can make weather forecasts. Students will use graphical displays to organize and interpret weather data over time from different areas. Students will use this data to identify patterns in weather conditions during different seasons and in different places. Students will use their patterns to predict typical



weather conditions during a specific season in different places. Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over a long period of time. Students will obtain information from reliable sources about climate and variations in climate. Students will use all of their data to describe climates, how patterns are used to predict weather, and that climate can vary over time. A variety of weather-related hazards results from natural processes. While humans cannot eliminate natural hazards, they can take steps to reduce their impact. Students will make a claim using evidence that identifies, describes, evaluates and critiques a design solution that reduces the impact of a weather related hazard.

For Questions Contact

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