

SCIENCE – Third Grade

Scientific Investigation, Reasoning, and Logic

- 3.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which
- observations are made and are repeated to ensure accuracy;
 - predictions are formulated using a variety of sources of information;
 - objects with similar characteristics or properties are classified into at least two sets and two subsets;
 - natural events are sequenced chronologically;
 - length, volume, mass, and temperature are estimated and measured in metric and standard English units using proper tools and techniques;
 - time is measured to the nearest minute using proper tools and techniques;
 - questions are developed to formulate hypotheses;
 - data are gathered, charted, graphed, and analyzed;
 - unexpected or unusual quantitative data are recognized;
 - inferences are made and conclusions are drawn;
 - data are communicated;
 - models are designed and built; and
 - current applications are used to reinforce science concepts.

Force, Motion, and Energy

- 3.2 The student will investigate and understand simple machines and their uses. Key concepts include
- purpose and function of simple machines;
 - types of simple machines;
 - compound machines; and
 - examples of simple and compound machines found in the school, home, and work environments.

Matter

- 3.3 The student will investigate and understand that objects are made of materials that can be described by their physical properties. Key concepts include
- objects are made of one or more materials;
 - physical properties remain the same as the material is changed in visible size; and
 - visible physical changes are identified.

Life Processes

- 3.4 The student will investigate and understand that adaptations allow animals to satisfy life needs and respond to the environment. Key concepts include
- behavioral adaptations; and
 - physical adaptations.

Living Systems

- 3.5 The student will investigate and understand relationships among organisms in aquatic and terrestrial food chains. Key concepts include
- producer, consumer, decomposer;
 - herbivore, carnivore, omnivore; and
 - predator and prey.

- 3.6 The student will investigate and understand that ecosystems support a diversity of plants and animals that share limited resources. Key concepts include
- aquatic ecosystems;
 - terrestrial ecosystems;
 - populations and communities; and
 - the human role in conserving limited resources.

Interrelationships in Earth/Space Systems

- 3.7 The student will investigate and understand the major components of soil, its origin, and its importance to plants and animals including humans. Key concepts include
- soil provides the support and nutrients necessary for plant growth;
 - topsoil is a natural product of subsoil and bedrock;
 - rock, clay, silt, sand, and humus are components of soils; and
 - soil is a natural resource and should be conserved.

Earth Patterns, Cycles, and Change

- 3.8 The student will investigate and understand basic patterns and cycles occurring in nature. Key concepts include
- patterns of natural events such as day and night, seasonal changes, simple phases of the moon, and tides;
 - animal life cycles; and
 - plant life cycles.
- 3.9 The student will investigate and understand the water cycle and its relationship to life on Earth. Key concepts include
- there are many sources of water on Earth;
 - the energy from the sun drives the water cycle;
 - the water cycle involves several processes;
 - water is essential for living things; and
 - water on Earth is limited and needs to be conserved.

Earth Resources

- 3.10 The student will investigate and understand that natural events and human influences can affect the survival of species. Key concepts include
- the interdependency of plants and animals;
 - the effects of human activity on the quality of air, water, and habitat;
 - the effects of fire, flood, disease, and erosion on organisms; and
 - conservation and resource renewal.
- 3.11 The student will investigate and understand different sources of energy. Key concepts include
- energy from the sun;
 - sources of renewable energy; and
 - sources of nonrenewable energy.