

FIRST GRADE SCIENCE GLES

1.1 Properties: Understand how properties are used to identify, describe, and categorize substances, materials, and objects and how characteristics are used to categorize living things.

1.1.2 Motion of Objects:

*Know that things may move in many different ways (i.e., back and forth, fast and slow, round and round, straight).

*Describe that the way to change how something is moving is to give it a push or a pull.

1.2 Structures: Understand how components, structures, organizations, and interconnections describe systems.

1.2.1 Structure of Physical Earth/Space and Living Systems:

*Describe how the parts of objects, organisms, and materials go together.

1.2.3 Structure of Matter:

*Sort objects based on component parts (e.g., toys with wheels).

1.2.5 Components of the Solar Systems and Beyond (Universe):

*Observe and record (i.e., draw, construct, build, measure with nonstandard units) changes in the Sun's position in the sky during the day.

1.2.8 Human Biology:

*Identify the external parts of the body (e.g., head, hands, fingers, eyes, ears).

*Draw and name the external parts of the body.

1.3 Changes: Understand how interactions within and among systems cause changes in matter and energy.

1.3.1 Nature of Force:

*Observe and show that a push or a pull on an object is a force on that object.

*Observe and show that a magnet can push or pull some objects without touching the objects.

1.3.2 Forces to Explain Motion:

*Observe and show that objects fall toward the ground because of the pull of Earth's gravity.

*Observe and show that magnets can make some objects move without touching the objects.

1.3.6 Hydrosphere and Atmosphere:

*Observe, measure, and record weather conditions, noting changes and patterns from day to day and over the seasons (e.g., temperature, wind, rain, snow).

*Name common weather conditions (e.g., rain, snow, wind).

1.3.8 Life Processes and the Flow of Matter and Energy:

*Observe and record that most living things need food, water, and air.

*Observe and record or demonstrate that plants need light.

1.3.10 Interdependence of Life:

*Observe and show how organisms live in specific places (e.g., fish live in a pool).

*Describe how animals depend on plants or other animals for food.

*Describe how animals depend on plants or other animals for shelter.

2.1 Investigating Systems: Develop the knowledge and skills necessary to do scientific inquiry.

2.1.1 Questioning:

*Wonder and ask questions about objects, organisms, and events based on observations of the natural world.

2.1.2 Planning and Conducting Safe Investigations:

*Make observations and record characteristics or properties.

*Follow all safety rules during investigations.

2.1.5 Communicating:

*Report observations of simple investigations using drawings and simple sentences.

*Describe and or draw the materials used in the investigation (e.g., numbers, shapes, colors).

*Report safety procedures used during the investigation.

2.2 Nature of Science: Understand the nature of scientific inquiry.

2.2.1 Intellectual Honesty:

*Record what is observed and explain how it was done accurately and honestly.

*Keep records and explain that the records have not been changed even when they did not match initial expectations.

2.2.2 Limitations of Science and Technology:

*Raise questions about the natural world and seek answers by making careful observations and trying things out.

*Make observations and measurements about natural phenomena.

2.2.5 **Evolution of Scientific Ideas:**

*Tell how scientific inquiry results in facts, unexpected findings, ideas, evidence, and explanations.

3.2 Science, Technology, and Society: Analyze how science and technology are human endeavors, interrelated to each other, society, the workplace, and the environment.

3.2.2 **Relationship of Science and Technology:**

*Describe ways in which common tools help people in their everyday life.

3.2.3 **Careers and Occupations Using Science, Mathematics, and Technology:**

*Tell at least one way that science, mathematics, or technology is used by a person in a job.

3.2.4 **Environmental and Resource Issues:**

*Describe what humans obtain from their environment (e.g., a school garden yields vegetables; a sheep yields wool, which is used to make sweaters).

*Describe what organisms obtain from their environment (e.g., a school plant needs water and sunlight).