Immaculate Conception School
Science Curriculum

Grade K

Physical Properties

- ❑ I can group objects by their color (including red, blue, yellow, green, orange, white, black, purple)
- ❑ I can group objects by their shape (including circle, square, triangle, rectangle)
- ❑ I can group objects by how big they are (including large, small, medium, larger, smaller, and measurements in non-standard units).
- ❑ I can group objects by the texture (e.g. bumpy, rough, smooth, fuzzy).
- ❑ I can group objects by whether they sink or float.
- ❑ I can sort objects in many ways.
- ❑ I can identify sounds and their source of vibrations in everyday life (alarms, car horns, animals, machines).
- ❑ I can compare different sounds (loudness, pitch, rhythm).
- ❑ I can identify the car as a receiver of vibration that produce sound.

States of Matter

- ❑ I can tell when water is solid.
- ❑ I can identify different forms of solid water (including snow, ice, and sleet).
- ❑ I can explain that solids keep their shape.
- ❑ I can tell when water is liquid.
- ❑ I can predict what shape liquid water will take when poured from one container into another.

Magnetic Properties

- ❑ I can use a magnet to sort materials.
- ❑ I can tell which materials are magnetic.
- ❑ I can use a magnet to push (repel) another magnet.
- ❑ I can use a magnet to pull (attract) another magnet.
- ❑ I understand that each end of a magnet (pole) acts differently.

Animal Life Requirements

- ❑ I can identify things that animals need to live (air, water, food, and water).

Animal Life Cycles

- ❑ I can recognized that all animals have life cycles.
- ❑ I can tell about the life cycle of some animals using stages (egg, young, and adult).
- ❑ I can tell about the life cycle of some animals using stages (egg, larva, pupa, and adult).

Observable Characteristics of Animals

- ❑ I can tell that observable characteristics are things I can see on the animal.
- ❑ I can see that different characteristics of animals are passed on from their parents.
- ❑ I can see that body covering (fur, hair, and feathers), coloring beak shape, and eye color are characteristics that parents pass on to their young.
- ❑ I can match adult and baby animals of the same species.

Weather

- ❑ I can compare weather from day to day.
- ❑ I can recognize if the temperature is cool, warm, cold, or hot.
- ❑ I can recognize if cloud cover is clear, cloudy, partly cloudy, or foggy.
- ❑ I can recognize if precipitation is rain, snow, hail, or freezing rain.
- ❑ I can recognize if the wind is calm, breezy or windy.

Weather Measurements

- ❑ I can identify a thermometer as a tool for measuring temperature.
- ❑ I can recognize that clear, cloudy, and partly cloudy are words to measure cloud cover.
- ❑ I can tell that a rain gauge is a tool for measuring precipitation.
- ❑ I can recognize that centimeters and inches are units to measure precipitation.
- ❑ I can tell that a wind sock or a wind vane is a tool for measuring the wind.
- ❑ I can recognize that north, east, south, west are words to measure wind direction.
- ❑ I can recognize that calm, breezy, and windy are words to measure wind.
- ❑ I can recognize that the wind directions the direction that the wind is coming from.
- ❑ I can see that weather observations over months show seasonal change.
- ❑ I can collect weather data over month to show seasonal changes.

Solar Energy

- ❑ I can identify that the sun is the main source of heat on the earth.
- ❑ I can tell that it is usually warmer in the day than the night.
- ❑ I can tell that it is usually warmer in the summer than the winter.
- ❑ I can tell that the sun heats the air, water, and land.
- ❑ I can observe and describe the presence of the sun, moon, and stars in the sky.
- ❑ I can observe that there are more stars in the sky than anyone can count, that the stars are scattered unevenly and vary in brightness.
- ❑ I can observe the sun as only being seen in the daytime and appears to move across the sky from morning to night.
- ❑ I can observe that the moon can be seen sometimes at night and sometimes during the daytime.
- ❑ I can observe that the moon appears to change shape over the course of a month.

Seasons and Types of Weather

- ❑ I can compare the weather in spring, summer, fall and winter.
- ❑ I can describe a season be temperature patterns.
- ❑ I can describe a season by precipitation patterns.
- ❑ I can identify severe weather characteristics (thunder and lightning, strong winds, and heavy precipitation).
- ❑ I can describe what to do for safety during thunder and lightning (thunderstorms).
- ❑ I can describe what to do for safety during strong winds (tornado).
- ❑ I can describe what to do for safety during heavy precipitation (blizzard).
- ❑ I can describe how the seasons affect everyday life (clothing activities).

Immaculate Conception School
Science Curriculum

Grade 1

Properties and Principles of Matter and Energy

I can use a balance with different objects (rock, block, toy car…)

- ❑ I can measure and compare the mass of objects (more or less).
- ❑ I can order objects according to mass.
- ❑ I can identify the source of energy that causes an increase in the temperature of an object (sun, stove, flame, light bulb…).
- ❑ I can use a thermometer to compare hot and cold objects.
- ❑ I can describe changes in temperature (warmer-cooler).
- ❑ I can identify the sun as a basic need of plants.

Properties and Principles of Force and Motion

- ❑ I can compare positions of objects (left of – right of).
- ❑ I can describe an object's motion as straight, circular, vibrating, back/forth, zigzag, stopping, starting or falling.
- ❑ I can compare the speeds of two moving objects (faster—slower).
- ❑ I can identify the force required to move an object (push, pull).
- ❑ I can describe ways to change the motion of an object (slower, faster, change direction).

Characteristics and Interactions of Living Organisms

- ❑ I can identify basic needs of most animals (food, air, water, shelter).
- ❑ I can identify and compare a variety of animal structures (beaks, feathers, scales, fur…).
- ❑ I can identify the basic needs of most plants (air, water, light).
- ❑ I can predict and investigate the growth of plants when growing conditions are changed (dark vs light, water vs no water).
- ❑ I can identify and compare a variety of plant structures (flower, stem, leaves, and roots).
- ❑ I can tell the difference between plants and animals based on observations and behaviors.

Changes in Ecosystems and Interactions of Organisms with their Environment

- ❑ I can identify ways people depend on plants and animals for food, clothing and shelter.

Processes and Interactions of the Earth's Systems

- ❑ I can observe, measure, record data through-out the year (temperature, precipitation).
- ❑ I can compare temperatures in different locations (inside, outside).
- ❑ I can compare weather data observed at different times throughout the year.
- ❑ I can identify patterns and relationships between weather patterns (clouds make rain).
- ❑ I can observe and describe ways water, (liquid & solid) is used in everyday activities at different times of the year (bathe, drink, ice cubes, and snowmen, swim).

Impact of Science, Technology, and Human Activity

- ❑ I can identify that some objects happen in nature (natural objects) and others are made by people (man-made).
- ❑ I can tell how tools have helped scientists make observations (balance, microscope, thermometers…).
- ❑ I can work with groups to form questions and solve problems.

Scientific Methods

- ❑ I can ask questions about objects and events in the environment.
- ❑ I can plan and conduct a simple investigation to answer a question.

- ❑ I can make observations using the five senses.
- ❑ I can make observations using simple tools and equipment (magnifiers, magnets…).
- ❑ I can measure length, mass, and temperature using standard and non-standard units.
- ❑ I can compare measurements; observations; patterns with prior knowledge to make predictions.
- ❑ I can show results through conversations; drawings; maps; graphs…

Immaculate Conception School
Science Curriculum

Grade 2

Properties and Principles of Matter and Energy

- ❑ I can describe and compare the physical properties of objects using simple tools.
- ❑ I can classify objects and substances as "one kind of material' or mixture.
- ❑ I can observe and describe how mixtures are made by combining solids.
- ❑ I can describe ways to separate mixtures by their physical properties.
- ❑ I can observe air, water, and solids as sound travels through them.
- ❑ I can show different ways to change sound.
- ❑ I can draw how the ear receives sound.
- ❑ I can show how to change sound.

Properties and Principles of Force and Motion

- ❑ I can describe Earth's gravity as a force.
- ❑ I can show how magnets attract and repel each other.
- ❑ I can tell about magnetism.
- ❑ I can compare forces as I move an object (toy car, wooden block) on different surfaces (push, pull, rough, smooth…).
- ❑ I can show the direction and amount of force needed to change an object's motion.
- ❑ I can compare the distances traveled when using the same force.
- ❑ I can use an incline plane and lever in a real life situations.

Characteristics and Interactions of Living Organisms

- ❑ I can identify and sequence life cycles in animals (frog, bird…).
- ❑ I can record observations on the life cycle of different animals.
- ❑ I can identify similarities and differences of animal parents and their offspring.

Changes in Ecosystems and Interactions of Organisms with their Environment

- ❑ I can show ways man uses plants and animals for food, clothing, and shelter.

Processes and Interactions of the Earth's Systems (focus on rocks and minerals)

- ❑ I can observe and describe sand, clay, soils, and humus.
- ❑ I can observe and describe the properties of rocks and fossils.
- ❑ I can describe changes in the Earth's surface.
- ❑ I can tell ways humans use Earth's materials.

Impact of Science, Technology, and Human Activity

- ❑ I can design and make a musical instrument using different materials.
- ❑ I can tell about how tools have helped scientists make better observations.
- ❑ I can work with a group to solve a problem.

Immaculate Conception School
Science Curriculum

Grade 3

Properties and Principles of Matter and Energy

- ❑ I can compare the properties of matter.
- ❑ I can identify everyday objects as solids, liquids, and gas.
- ❑ I can observe evaporation.
- ❑ I can measure and compare the temperature of water in its various states.
- ❑ I can predict and investigate the effect of heat on matter.
- ❑ I can identify sources of light energy.
- ❑ I can identify light being transferred.
- ❑ I can tell what things are needed to produce a shadow.

Properties and Principles of Force and Motion

- ❑ I can classify forces as; push, pull, or friction.
- ❑ I can describe gravity and magnetism.

Characteristics and Interactions of Living Organisms

- ❑ I can explain the basic needs of most plants.
- ❑ I can describe and sequence the stages in the life cycle of a flowering plant.
- ❑ I can identify the functions in a vascular plant.
- ❑ I can illustrate and trace the path of water and nutrients as they move through the transport y system of a plant.
- ❑ I can identify and relate similarities and differences between plants and their offspring.

Changes in Ecosystems and Interactions of Organisms with their Environment

- ❑ I can identify sunlight as the primary source that plants use to produce their own food.
- ❑ I can classify populations or organisms as producers or consumers.
- ❑ I can show the sequence of energy through a food chain beginning with the sun.
- ❑ I can predict the possible effects of removing an organism from a food chain.

Processes and Interactions of the Earth's Systems (focus on rocks and minerals)

- ❑ I can identify that liquid water can be changed into a gas (vapor).
- ❑ I can identify that clouds are composed of tiny water droplets.
- ❑ I can identify air as a substance that surrounds us and takes up space.
- ❑ I can explain that clouds and precipitation are forms of water.

Composition and structure of the Universe and the Motion of the Objects within It

- ❑ I can describe our Sun as a star.
- ❑ I can observe and identify the Moon as a reflection of light.
- ❑ I can illustrate and describe how the Sun and Moon appears to move across the sky.
- ❑ I can describe the pattern of change that can be observed in the Moon's appearance.
- ❑ I can explain the 24 hour day/night cycle.
- ❑ I can describe the changes in length and position of shadows created by the sun.

Impact of Science, Technology, and Human Activity

- ❑ I can observe and identify that some objects or materials that occur in nature (natural) help humans and improve the quality of life.
- ❑ I can describe how technology has helped scientists to make better observations and measurements.
- ❑ I can research various scientists and inventors and describe their contributions to humans.

Processes and interactions of Earth's Systems

- ❑ I can identify kinds of rocks, minerals, and fossils.
- ❑ I can explain how fossil fuels are formed.

Immaculate Conception School
Science Curriculum

Grade 4

Properties and Principles of Matter and Energy

- ❑ I can observe that the total mass of a material remains constant whether it is together, in parts, or in a different state.
- ❑ I can identify situations where no two objects can occupy the same space at the same time, such as when water level rises when a rock is place in a quantity or water.
- ❑ I can identify the evidence of energy transformations, such as temperature change, light, sound, motion, and magnetic effects that occur in electrical circuits.
- ❑ I can compare and chart the masses of objects to the nearest gram using a balance.
- ❑ I can compare and record the volumes of objects using a graduated cylinder.
- ❑ I can classify types of materials into "like" substances.
- ❑ I can identify water as a solvent that dissolves materials.
- ❑ I can observe and describe how mixtures are made.
- ❑ I can distinguish between the components in a mixture/solution.
- ❑ I can describe ways to separate the components of a mixture/solution.
- ❑ I can construct and diagram a complete electric circuit.
- ❑ I can show energy transferring in a closed circuit.
- ❑ I can classify materials as conductors or insulators of electricity in a circuit.

Characteristics and Interactions of Living Organisms

- ❑ I can identify specialized structures and senses and describe how they help animals survive in their environment.
- ❑ I can explain plants and animals differences and similarities.

Properties and Principles of Force and Motion

- ❑ I can observe that balanced forces do not affect an object's motion.
- ❑ I can describe how unbalance forces acting on an object changes its speed (faster/slower), direction of motion, or both.
- ❑ I can predict how the change in speed of an object is affected by the amount of force applies to an object and the mass of the object.
- ❑ I can classify different types or motion.
- ❑ I can describe an object's motion in terms of distance and time.
- ❑ I can identify the forces acting on the motion of objects traveling in a straight line.
- ❑ I can compare forces applied to objects in a single line.
- ❑ I can identify friction as a force that slows down or stops a moving object.
- ❑ I can compare forces required to overcome friction when an object moves over different surfaces.
- ❑ I can show the gravitational pull of the Earth on an object.
- ❑ I can predict the effects of static electricity on the motion of objects.

Changes in Ecosystems and Interactions of Organisms with their Environment

- ❑ I can identify the ways an organism may interact with other organisms in their environment.
- ❑ I can identify and describe different environments.
- ❑ I can identify examples in Missouri where human activity has had a beneficial or harmful effect on other organisms.

- ❑ I can classify populations of organisms as producers and consumers by the role they serve in their ecosystem.
- ❑ I can differentiate between the different types of consumers.
- ❑ I can categorize organisms as predator or prey in a given ecosystem.
- ❑ I can compare and contrast common fossils found in Missouri.
- ❑ I can identify specialized structures and describe how they help plants survive in their environment.
- ❑ I can identify internal and external cues that cause organisms to behave in certain ways.
- ❑ I can predict which animal or plants will be able to survive in a specific environment based on its special structures or behaviors.

Processes and Interactions of the Earth's Systems (focus on rocks and minerals)

- ❑ I can identify and describe the components of soil.
- ❑ I can compare the properties of rocks and fossils.
- ❑ I can describe the breakdown of plants and animal material into soil through decomposition.
- ❑ I can identify the major landforms/bodies of water on Earth.
- ❑ I can describe how weathering causes change to the Earth's surface.
- ❑ I can relate the type of landform/water body to the process by which it was formed.
- ❑ I can identify the ways humans affect the erosion and deposition of the Earth's materials.
- ❑ I can propose ways to solve simple environmental problems as a result from human activity.

Composition and structure of the Universe and the Motion of the Objects within it

- ❑ I can describe regular and predictable motions of the Earth and Moon relative to the Sun (shadows, moon phases, eclipse, tides, and seasons)
  Impact of Science, Technology, and Human Activities
- ❑ I can design and construct an electrical device using materials and/or objects that can be used to perform a task.
- ❑ I can describe how new technologies have helped scientist make better observations and measurements for investigations.
- ❑ I can identify how the effects of inventions may be helpful, harmful, or both.
- ❑ I can research various scientists and inventors and describe how their work contributed to science and technology.
- ❑ I can work with a group to solve a scientific problem.

Immaculate Conception School
Science Curriculum

Grade 5

Properties and Principles of Matter and Energy

- ❑ I can classify objects and materials by their properties.
- ❑ I can describe how changes in the states of matter show that matter is made of particles too small to be seen.
- ❑ I can classify matter as a solid, liquid, or a gas as it exists at room temperature using physical properties.
- ❑ I can predict the effect of heat on the physical properties of matter.
- ❑ I can observe that the mass of water remains constant as it changes state (in a closed container).
- ❑ I can observe and explain light being transferred.
- ❑ I can observe and explain how an object can only be seen when light is reflected from that object to the receiver (eye).
- ❑ I can identify the Sun as the primary source of energy for temperature change on Earth.

Properties and Principles of Force and Motion

- ❑ I can identify the forces acting on a load and use a spring scale to measure weight of the load.
- ❑ I can describe how friction affects the amount of force needed to so work over different surfaces or through different media.
- ❑ I can explain how work can be done on objects.
- ❑ I can identify the simple machines in common household items.
- ❑ I can summarize relationships between weather and data collected over a period of time.
- ❑ I can explain how major bodies of water are important resources for human activity.
- ❑ I can describe how human needs and activities have affected the quality and availability that result in human activity.

Composition and structure of the Universe and the Motion of Objects within it

- ❑ I can identify the Earth is one of several planets within a solar system that orbits the sun.
- ❑ I can explain how the Moon orbits the Earth in about a month.
- ❑ I can tell that the planets look like stars and appear to move across the sky among the stars.
- ❑ I can describe the physical features of the planet Earth.
- ❑ I can sequence the lit portion of the moon seen from Earth as it cycles day to day in about a month in order of occurrence.
- ❑ I can explain that the Earth rotates once every 24 hours.
- ❑ I can relate changes in the length and position of shadows with their position and the movement of the Sun.
- ❑ I can explain the apparent motion of Sun, Moon, and the stars in the sky to the rotation of the Earth.
- ❑ I can compare the measures of force needed to lift a load with and without the use of simple machines.

Characteristics and Interactions of Living Organisms

- ❑ I can compare structures that serve similar functions for animals belonging to different vertebrate classes.
- ❑ I can explain how similarities are the basis for classification.
- ❑ I can classify animals as vertebrates or invertebrates.
- ❑ I can identify plants or animals using simple dichotomous keys.

- ❑ I can compare the major organs/organ systems that perform function for animals belonging to different vertebrate classes.

Changes in Ecosystem and Interactions of Organisms with their Environment

- ❑ I can explain how organisms are interdependent with one another and with their environment.

Processes and Interactions of the Earth's Systems (focus on rocks and minerals)

- ❑ I can classify major bodies of surface water.
- ❑ I can explain that the atmosphere is composed of a mixture of gases, water, and minute particles.
- ❑ I can describe and trace the path of water as it cycles.
- ❑ I can identify the different forms water can take as it moves through the water cycle.
- ❑ I can use tools appropriate to collect weather data.

Impact of Science, Technology, and Human Activity

- ❑ I can design and construct a machine using materials and/or objects that can be used to perform a task.
- ❑ I can describe how new technologies have helped scientists make better observations and measurements for investigations.
- ❑ I can identify how the effects of inventions or technological advances may be helpful, harmful, or both.
- ❑ I can research various scientists and inventors and describe how their work contributed to science and technology.
- ❑ I can work with a group to solve a scientific problem.

Scientific method and tools

- ❑ I can formulate testable questions and explanations (hypothesis).
- ❑ I can recognize characteristics of a fair test.
- ❑ I can conduct a fair test to answer a question.
- ❑ I can make suggestions to improve or make extensions of a fair test.
- ❑ I can make observations using the five senses.
- ❑ I can choose the appropriate tools and techniques to collect data.
- ❑ I can use a variety of tools and equipment to gather data (hand lenses, magnets, thermometers, metric rulers, balances, graduated cylinders, spring scales).
- ❑ I can measure length to the nearest centimeter, mass to the nearest gram, volume to the nearest millimeter, temperature to the nearest degree
- ❑ I can compare amounts and measurements.
- ❑ I can determine whether measurements and computations are reasonable.
- ❑ I can use quantitative and qualitative date as support for reasonable explanations.
- ❑ I can use date to support observed patterns and relationships, and to make predictions that can be tested.
- ❑ I can evaluate the reasonableness of an explanation.
- ❑ I can analyze whether evidence supports explanations.
- ❑ I can communicate the procedures and the results of investigations through: oral presentations, drawings and maps, data tables, graphs (bar, single line, pictograph), and writings.

Immaculate Conception School
Science Curriculum

6th Grade – Earth Science

Goals

- ❑ I can apply scientific methods to problem solving.
- ❑ I can distinguish among independent variables, dependent variables, constants, and controls.
- ❑ I can identify the states of matter and list differences between compounds and mixtures.
- ❑ I can describe properties used to identify minerals.
- ❑ I can examine the rock cycle and determine that rocks form from all types of rocks in a nonspecific pattern.
- ❑ I can assess how evolution has had an effect on the Earth's structure and fossil records allowing the Earth to change and evolve over time.
- ❑ I can compare and contrast mechanical verses chemical weathering.
- ❑ I can determine how the factors of erosion affect the physical features and shape of the Earth.
- ❑ I can summarize the water cycle and the effect it has on the Earth.
- ❑ I can identify phases of the moon and use it to determine the effect it has on tides.
- ❑ I can identify objects in the solar system and their placement in relationship to the Earth in our solar system.
- ❑ I can be able to identify different types of stars and galaxies.
- ❑ I can analyze the effects of plate tectonics with their formations of the earth.
- ❑ I can develop a model of the layers of the Earth.
- ❑ I can predict the impact and causes natural disasters have on our environment and organisms in an ecosystem.
- ❑ I can identify and describe the properties of water that make it an essential component of the Earth system.
- ❑ I can classify rocks as sedimentary, igneous, or metamorphic.
- ❑ I can identify factors that affect climate and weather patterns.
- ❑ I can describe the affects human activity has on the earth and her resources.
- ❑ I can explain, identify, and describe the contributions of scientists, inventors, and technological improvements to science.

Content Topics

- Mineral s- crystalline structure (matter, atoms, bonds), properties, and uses
- Rocks – cycle, types (Igneous, Metamorphic, and Sedimentary), and uses
- Weathering – chemical and mechanical
- Water cycle
- Erosion – agents/factors (wind, water, glacier)
- Astronomy – sun, moon, stars, galaxies
- Oceanography - ocean motion, tides,
- Evolution-Earth's changes, fossil evidence, and plate tectonics
- Earth- Plate tectonics (earthquakes and volcanoes), Pangaea, layers, and composition
- Space – Stars, constellations, galaxies

Immaculate Conception School
Science Curriculum

7th Grade – Life Science

Goals

- ❑ I can apply scientific methods to problem solving.
- ❑ I can distinguish between living and nonliving things.
- ❑ I can identify the parts of a cell and their importance to a cell's survival and reproduction.
- ❑ I can compare the difference how plants and animals obtain food and get energy for survival.
- ❑ I can explain how early scientists classified single-celled organisms by their forms of movement, the way they get food, and the way they reproduce.
- ❑ I can identify the major functions of the human body systems.
- ❑ I can determine how the body systems all work together for continuing on life.
- ❑ I can examine how diseases and disorders affect the different parts of the human body
- ❑ I can explain how genetic traits are inherited and passed on through generations.
- ❑ I can recognize how genes, chromosomes, and DNA are all related in organisms.
- ❑ I can classify the different levels in an ecosystem.
- ❑ I can identify the difference between biotic and abiotic factors in an ecosystem. Within the factors, students will determine which factors are consumers, decomposers, producers, predators, and prey.
- ❑ I can apply an accurate energy pyramid and food web in an ecosystem.
- ❑ I can investigate the affects humans have on the environment and how can humans protect the environment or their current ecosystem.
- ❑ I can predict how adaptations impact organisms in the environment.
- ❑ I can describe the common life processes necessary to the survival of organisms.
- ❑ I can identify examples of unicellular and multicellular organisms.
- ❑ I can explain the beneficial or detrimental impact that some organisms have on other organisms.

- ❑ I can explain, identify, and describe the contributions of scientists, inventors, and technological improvements to science.

Content Topics

- Cells - parts, functions, reproduction, energy, interactions
- Single-celled organisms
- Plant and animal relationships for life
- Human Body Systems – skeletal, muscular, integumentary, digestive, circulatory, lymphatic, nervous, respiratory, excretory/urinary, endocrine, reproductive, and immune
- Genetics, heredity, DNA
- Ecosystems- levels, factors, energy pyramid, and food webs, human interactions
- Proper use of microscopes

Immaculate Conception School
Science Curriculum

8th Grade – Physical Science

Goals

- ❑ I can apply scientific methods to problem solving.
- ❑ I can determine what makes up matter and how to measure matter.
- ❑ I can examine the different states in matter.
- ❑ I can determine the characteristics needed to have a change of state to occur.
- ❑ I can examine how an object is in motion, what changes the motion, and what causes an object to start or stop from the original starting point.
- ❑ I can distinguish between distance, speed, acceleration, and velocity.
- ❑ I can compare and contrast the forces of gravity, friction, and air resistance.
- ❑ I can explain how force, mass, and acceleration are related to motion.
- ❑ I can accurately reproduce Newton's Laws, Law of Conservation of Momentum, and the Law of Inertia.
- ❑ I can categorize and describe the six types of simple machines and how they work.
- ❑ I can compare and contrast various forms of energy.
- ❑ I can explain how waves travel through different mediums.
- ❑ I can evaluate how the properties of a wave affect the movement and speed of the wave's energy.
- ❑ I can understand the development of the periodic table.
- ❑ I can accurately read the periodic table of elements.
- ❑ I can use different scientific tools to compare, identify, describe, and interpret how different forces act on objects.
- ❑ I can observe and describe energy transfer in a closed series circuit.
- ❑ I can recognize and describe conservation of energy.
- ❑ I can explain, identify, and describe the contributions of scientists, inventors, and technological improvements to science.

Content Topics

- States of Matter and Changes of State
- Motion and Newton's Laws
- Forces
- Work and Simple Machines
- Energy – potential, gravitational, elastic, chemical/kinetic, thermal, energy sources, electricity
- Wave properties and interactions
- Atoms – properties
- Periodic Table
- Chemical bonds