Snapshot – Grade 2 Science

ST. ANN'S CATHOLIC SCHOOL
FAITH, KNOWLEDGE AND CHARACTER

Catholic Identity Standards		
2.0	**Catholic identity standards.** The student understands and integrates the content of what is learned into their faith and daily life.	
Ways to Grow	2.0A	recognize that every human life is sacred because each person is created and loved by God
	2.0B	describe ways to take part in/be responsible to the community by discerning and using our God-given gifts
	2.0C	recognize and oppose unjust social structures and work toward justice for all
	2.0D	see God at work in all things and as expressed in the sacraments
	2.0E	connect scripture, tradition, and the models of Mary and the saints to guide, grow, and deepen faith

Scientific and Engineering Practices	
2.1	The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models.
2.1A	ask questions and define problems based on observations or information from text, phenomena, models, or investigations
2.1B	use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
2.1C	identify, describe, and demonstrate safe practices during classroom and field investigations as outlined
2.1D	use tools to observe, measure, test, and compare
2.1E	collect observations and measurements as evidence
2.1F	record and organize data using pictures, numbers, words, symbols, and simple graphs

Scientific and Engineering Practices	
2.2	The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs.
2.2A	identify basic advantages and limitations of models such as their size, properties, and materials
2.2B	analyze data by identifying significant features and patterns
2.2C	use mathematical concepts to compare two objects with common attributes
2.2D	evaluate a design or object using criteria to determine if it works as intended

Scientific and Engineering Practices	
2.3	The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions.
2.3A	develop explanations and propose solutions supported by data and models
2.3B	communicate explanations and solutions individually and collaboratively in a variety of settings and formats
2.3C	listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion

Scientific and Engineering Practices	
2.4	The student knows the contributions of scientists and recognizes the importance of scientific research and innovation for society.
2.4A	explain how science or an innovation can help others
2.4B	identify scientists and engineers such as Alexander Graham Bell, Marie Daly, Mario Molina, and Jane Goodall and explore what different scientists and engineers do

Recurring Concepts and Themes	
2.5	The student uses recurring themes and concepts to make connections across disciplines.
2.5A	identify and use patterns to describe phenomena or design solutions
2.5B	investigate and predict cause-and-effect relationships in science

2.5C	measure and describe the properties of objects in terms of size and quantity
2.5D	examine the parts of a whole to define or model a system
2.5E	identify forms of energy and properties of matter
2.5F	describe the relationship between structure and function of objects, organisms, and systems
2.5G	describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same

Matter and Energy

2.6 The student knows that matter has physical properties that determine how it is described, classified, and used.

Applied Standards		Supporting Standards	
2.6A	classify matter by observable physical properties, including texture, flexibility, and relative temperature, and identify whether a material is a solid or liquid	2.6B	conduct a descriptive investigation to explain how physical properties can be changed through processes such as cutting, folding, sanding, melting, or freezing
2.6C	demonstrate that small units such as building blocks can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties		

Force, Motion, and Energy

2.7 The student knows that forces cause changes in motion and position in everyday life.

2.7B	plan and conduct a descriptive investigation to demonstrate how the strength of a push and pull changes an object's motion	2.7A	explain how objects push on each other and may change shape when they touch or collide

Force, Motion, and Energy

2.8 The student knows that energy is everywhere and can be observed in everyday life.

2.8A	demonstrate and explain that sound is made by vibrating matter and that vibrations can be caused by a variety of means, including sound	2.8B	explain how different levels of sound are used in everyday life such as a whisper in a classroom or a fire alarm
		2.8C	design and build a device using tools and materials that uses sound to solve the problem of communicating over a distance

Earth and Space

2.9 The student knows that there are recognizable patterns in the natural world and among objects in the sky.

2.9.DS1 display a sense of wonder and delight about the natural universe and its beauty*

2.9A	describe the Sun as a star that provides light and heat and explain that the Moon reflects the Sun's light
2.9B	observe objects in the sky using tools such as a telescope and compare how objects in the sky are more visible and can appear different with a tool than with an unaided eye

Earth and Space

2.10 The student knows that the natural world includes earth materials that can be observed in systems and processes.

2.10A	investigate and describe how wind and water move soil and rock particles across the Earth's surface such as wind blowing sand into dunes on a beach or a river carrying rocks as it flows
2.10B	measure, record, and graph weather information, including temperature and precipitation
2.10C	investigate different types of severe weather events such as a hurricane, tornado, or flood and

explain that some events are more likely than others in a given region	

Earth and Space		
2.11	The student knows that earth materials and products made from these materials are important to everyday life	
2.11.DS2	share concern and care for the environment as part of God's creation*	
2.11A	distinguish between natural and manmade resources	
2.11B	describe how human impact can be limited by making choices to conserve and properly dispose of materials such as reducing use of, reusing, or recycling paper, plastic, and metal	

Organisms and Environments		
2.12	The student knows that living organisms have basic needs that must be met through interactions within their environment.	
2.12A	describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem	
2.12B	create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things	
2.12C	explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around	

Organisms and Environments		
2.13	The student knows that organisms have structures and undergo processes that help them interact and survive within their environments.	
2.13A	identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival	2.13.IS4 give examples of the beauty evident in God's creation*
2.13B	record and compare how the structures and behaviors of animals help them find and take in food, water, and air	2.13C record and compare how being part of a group helps animals obtain food, defend themselves, and cope with changes
2.13D	investigate and describe some of the unique life cycles of animals where young animals do not resemble their parents, including butterflies and frogs	