CATHOLIC SCHOOLS
— ARCHDIOCESE OF SAN ANTONIO —

Teacher Learning Report
Grade 5 Science

>> Physical Properties of Matter	Unit	CHECKPOINT 1	2	3
5.5 Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used.				

Process (Tools to Know)	Unit	CHECKPOINT 1	2	3
5.2(A) describe, plan and implement experimental investigations ⓧ 5.4(A) collect, record, and analyze information using tools ⓧ *connected 5.1(A), 5.1(B), 5.2(B), 5.2(E)*				

Content	Unit	CHECKPOINT 1	2	3
Properties of Matter				
5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy ⓧ				
Changes in Matter				
3.5(C)* predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water or condensation forming on the outside of a glass of ice water or liquid water being heated to the point of becoming water vapor ⓧ				
Mixtures				
5.5(B) demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand and sand and water				
5.5(C) identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water				

Process (Ways to Show)	Unit	CHECKPOINT 1	2	3
5.2(D) analyze and interpret information/construct reasonable explanations ⓧ 5.2(G) construct graphs, tables, maps, and charts to organize, examine, and evaluate information 5.3(B) draw or develop a model ⓧ *connected 5.2(C), 5.2(F), 5.3(A), 5.3(C)*				

>> TEKS clusters typically requiring additional time and focus in the curriculum

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>> Force, Motion, and Energy	Unit	CHECKPOINT 1	2	3
5.6 Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems.				

Process (Tools to Know)	Unit	CHECKPOINT 1	2	3
5.2(A) describe, plan and implement experimental investigations ⓧ 5.4(A) collect, record, and analyze information using tools ⓧ *connected 5.1(A), 5.1(B), 5.2(B), 5.2(E)*				

Content	Unit	CHECKPOINT 1	2	3
Uses of Energy				
5.6(A) explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy				
Electricity				
5.6(B) demonstrate that the flow of electricity in closed circuits can produce light, heat, or sound				
Light				
5.6(C) demonstrate that light travels in a straight line until it strikes an object and is reflected or travels through one medium to another and is refracted				
Force				
5.6(D) design a simple experimental investigation that tests the effect of force on an object ⓧ				
3.6(B)* demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons ⓧ				

Process (Ways to Show)	Unit	CHECKPOINT 1	2	3
5.2(D) analyze and interpret information/construct reasonable explanations ⓧ 5.2(G) construct graphs, tables, maps, and charts to organize, examine, and evaluate information 5.3(B) draw or develop a model ⓧ *connected 5.2(C), 5.2(F), 5.3(A), 5.3(C)*				

>> TEKS clusters typically requiring additional time and focus in the curriculum

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Natural Resources and Changes to Earth's Surface	Unit	CHECKPOINT 1	2	3
5.7 Earth and space. The student knows Earth's surface is constantly changing and consists of useful resources.				

Process (Tools to Know)	Unit	CHECKPOINT 1	2	3
5.2(A) describe, plan and implement experimental investigations ⓧ 5.4(A) collect, record, and analyze information using tools ⓧ *connected 5.1(A), 5.1(B), 5.2(B), 5.2(E)*				

Content	Unit	CHECKPOINT 1	2	3
Rocks and Soil				
5.7(A) explore the processes that led to the formation of sedimentary rocks and fossil fuels				
4.7(A)* examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants				
Landforms				
5.7(B) recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, or ice ⓧ				
3.7(B)* investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides ⓧ				
Renewable and Nonrenewable Resources				
5.7(A) explore the processes that led to the formation of sedimentary rocks and fossil fuels				
4.7(C)* identify and classify Earth's renewable resources, including air, plants, water, and animals; and nonrenewable resources, including coal, oil, and natural gas; and the importance of conservation				

Process (Ways to Show)	Unit	CHECKPOINT 1	2	3
5.2(D) analyze and interpret information/construct reasonable explanations ⓧ 5.3(B) draw or develop a model ⓧ *connected 5.2(C), 5.2(F), 5.2(G), 5.3(A), 5.3(C)*				

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Weather	Unit	CHECKPOINT 1	2	3
5.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system.				

Process (Tools to Know)	Unit	CHECKPOINT 1	2	3
5.2(A) describe, plan and implement experimental investigations ⓧ 5.4(A) collect, record, and analyze information using tools ⓧ *connected 5.1(A), 5.1(B), 5.2(B), 5.2(E)*				

Content	Unit	CHECKPOINT 1	2	3
Weather				
5.8(A) differentiate between weather and climate				
4.8(A)* measure, record, and predict changes in weather				
Water Cycle				
5.8(B) explain how the Sun and the ocean interact in the water cycle				
4.8(B)* describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process				

Process (Ways to Show)	Unit	CHECKPOINT 1	2	3
5.2(C) collect and record information using detailed observations and accurate measuring 5.2(D) analyze and interpret information/construct reasonable explanations ⓧ 5.2(G) construct graphs, tables, maps, and charts to organize, examine, and evaluate information 5.3(B) draw or develop a model ⓧ *connected 5.2(F), 5.3(A), 5.3(C)*				

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Space	Unit	CHECKPOINT 1	2	3
5.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system.				

Process (Tools to Know)	Unit	CHECKPOINT 1	2	3
5.2(A) describe, plan and implement experimental investigations ⓧ 5.4(A) collect, record, and analyze information using tools ⓧ *connected 5.1(A), 5.1(B), 5.2(B), 5.2(E)*				

Content	Unit	CHECKPOINT 1	2	3
Earth's Movement				
5.8(C) demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky ⓧ				
4.8(C)* collect and analyze data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time ⓧ				
Sun, Earth, and Moon				
5.8(D) identify and compare the physical characteristics of the Sun, Earth, and Moon				
Planets				
3.8(D)* identify the planets in Earth's solar system and their position in relation to the Sun				

Process (Ways to Show)	Unit	CHECKPOINT 1	2	3
5.2(D) analyze and interpret information/construct reasonable explanations ⓧ 5.3(B) draw or develop a model ⓧ *connected 5.2(C), 5.2(F), 5.2(G), 5.3(A), 5.3(C)*				

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>> Organisms and Environments	Unit	CHECKPOINT 1	2	3
5.9 **Organisms and environments.** The student knows that there are relationships, systems, and cycles within environments.				

Process (Tools to Know)	Unit	CHECKPOINT 1	2	3
5.4(A) collect, record, and analyze information using tools Ⓚ *connected 5.1(A), 5.1(B), 5.2(A), 5.2(B), 5.2(E)*				

Content	Unit	CHECKPOINT 1	2	3
Interactions in Ecosystems				
5.9(A) observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components Ⓚ				
5.9(C) predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways				
5.9(D) identify fossils as evidence of past living organisms and the nature of the environments at the time using models				
3.9(A)* observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem Ⓚ				
Food Webs				
5.9(B) describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers				

Process (Ways to Show)	Unit	CHECKPOINT 1	2	3
5.2(D) analyze and interpret information/construct reasonable explanations Ⓚ 5.3(B) draw or develop a model Ⓚ *connected 5.2(C), 5.2(F), 5.2(G), 5.3(A), 5.3(C)*				

>> TEKS clusters typically requiring additional time and focus in the curriculum

Adaptations and Behaviors	Unit	CHECKPOINT 1	2	3
5.10 **Organisms and environments.** The student knows that organisms have structures and behaviors that help them survive within their environments.				

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Process (Tools to Know)	Unit	CHECKPOINT 1	2	3
5.2(A) describe, plan and implement experimental investigations ⓧ 5.4(A) collect, record, and analyze information using tools ⓧ *connected 5.1(A), 5.1(B), 5.2(B), 5.2(E)*				

Content	Unit	CHECKPOINT 1	2	3
Adaptations				
5.10(A) compare the structures and functions of different species that help them live and survive in a specific environment such as hooves on prairie animals or webbed feet in aquatic animals ⓧ				
Inherited Traits and Learned Behaviors				
5.10(B) differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle				
Life Cycles				
3.10(B)* investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady beetles				

Process (Ways to Show)	Unit	CHECKPOINT 1	2	3
5.2(D) analyze and interpret information/construct reasonable explanations ⓧ 5.3(B) draw or develop a model ⓧ *connected 5.2(C), 5.2(F), 5.2(G), 5.3(A), 5.3(C)*				

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PROCESS STANDARDS: SCIENTIFIC INVESTIGATION AND REASONING			Unit	CHECKPOINT 1	2	3
5.1	The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices.	Tools to Know				
5.2	The student uses scientific practices during laboratory and scientific investigations.					
5.3	The student uses critical thinking and scientific problem solving to make informed decisions.	Ways to Show				
5.4	The student knows how to use a variety of tools and methods to conduct science inquiry.					

TOOLS TO KNOW		Unit	CHECKPOINT 1	2	3
5.1(A)	demonstrate safe practices and the use of safety equipment as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate				
5.1(B)	make informed choices in the conservation, disposal, and recycling of materials				
5.2(A)	describe, plan, and implement simple experimental investigations testing one variable ⓧ				
5.2(B)	ask well defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology				
5.2(E)	demonstrate that repeated investigations may increase the reliability of results				
5.4(A)	collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices; and materials to support observations of habitats or organisms such as terrariums and aquariums ⓧ				

WAYS TO SHOW		Unit	CHECKPOINT 1	2	3
5.2(C)	collect and record information using detailed observations and accurate measuring				
5.2(D)	analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence ⓧ				
5.2(F)	communicate valid conclusions in both written and verbal forms				
5.2(G)	construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information				
5.3(A)	analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and				

	experimental and observational testing				
5.3(B)	draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks Ⓧ				
5.3(C)	connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists				