



Gulfport School District

PACING GUIDE

THIRD GRADE

SCIENCE

Content Strands: Inquiry (I), Life (L), Earth and Space (E), and Physical Science (P)	
QTR	Competency/Objective
Apply concepts involved in a scientific investigation. (I)	
1-4 Tested 4*	1a Identify questions and predict outcomes that can be examined through scientific investigations. (DOK 3)
1-4 Tested 4*	1b Describe familiar objects and events using the senses to collect qualitative information (e.g., color, size, shape). (DOK 1)
3*	1c Select and use simple tools (e.g., rulers, thermometers, scales, hand lenses, microscopes, calculators, balances, clocks) to gather information. (DOK 1) <ul style="list-style-type: none"> • Length to the nearest half of an inch, foot, yard, centimeter, and meter • Capacity and weight/mass, in English and metric systems • Time to the nearest minute • Temperature to the nearest degree
1-4 Tested 4*	1d Draw conclusions and communicate the results of an investigation. (DOK 2)
1-4 Tested 4*	1e Communicate data by creating diagrams, charts, tables, and graphs. (DOK 2)
1-4 Tested 4*	1f Ask questions and seek answers to explain why different results sometimes occur in repeated investigations. (DOK 2)
Explain concepts related to objects and materials, position and motion of objects, and properties of magnetism. (P)	
2	2a Investigate to conclude that the weight of an object is always the sum of its parts, regardless of how it is assembled (e.g., Lego creation/separate blocks, bucket/cups of sand, roll/stacks of pennies, bag/individual potatoes, etc.) (DOK 2)
2	2b Explore and identify physical changes of matter, including melting, freezing, boiling, evaporation, and condensation. (DOK 2)
2	2c Investigate and describe forces affecting motion in simple machines (lever, wheel and axle, block and tackle, inclined plane, screw.) (DOK 2)
2	2d Differentiate between potential and kinetic energy and recognize their conversions. (DOK 2) <ul style="list-style-type: none"> • Potential to kinetic (e.g., winding a clock/clock begins ticking) • Kinetic to potential (e.g., roller coaster moving downward/upward to the top of the hill)
2	2e Explain how light waves travel (e.g., in a straight line until they strike an object, through transparent and translucent objects, from reflecting and refracting surfaces, at the surface of opaque objects). (DOK 1)

*These skills are tested during the indicated Quarter and correlated with the Mathematics pacing guide.



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2	2f	Differentiate the movement of vibrations in waves (e.g., sound and seismic waves), and cite examples to explain that vibrations move through different materials at different speeds. (DOK 1)
2	2g	Cite evidence to explain why heating or cooling may change the properties of materials (e.g., boiling an egg, evaporating water, chilling gelatin, making ice cream, etc.) (DOK 2)
Describe the characteristics, structures, life cycles, and environments of organisms. (L)		
3	3a	Research and explain diverse life forms (including vertebrates and invertebrates) that live in different environments (e.g., deserts, tundras, forests, grasslands, taigas, wetlands) and the structures that serve different functions in their survival (e.g., methods of movement, defense, camouflage). (DOK 2)
3	3b	Identify and describe the purpose of the digestive, nervous, skeletal, and muscular systems of the body. (DOK 1)
3	3c	Investigate the relationships between the basic needs of different organisms and discern how adaptations enable an organism to survive in a particular environment. (DOK 2)
3	3d	Illustrate how the adult animal will look, when given pictures of young animals (e.g., birds, fish, cats, frogs, caterpillars, etc.) (DOK 2)
3	3e	Recall that organisms can survive only when in environments (deserts, tundras, forests, grasslands, taigas, wetlands) in which their needs are met and interpret the interdependency of plants and animals within a food chain, including producer, consumer, decomposer, herbivore, carnivore, omnivore, predator, and prey. (DOK 2)
3	3f	Recognize that cells vary greatly in size, structure, and function, and that some cells and tiny organisms can be seen only with a microscope. (DOK 1)
Develop an understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky. (E)		
1	4a	Recall that soil is made up of various materials (weathered rock, minerals, plant and animal remains, living organisms.) (DOK 1)
1	4b	Compare and contrast changes in the Earth's surface that are due to slow processes (erosion, weathering, mountain building) and rapid processes (landslides, volcanic eruptions, earthquakes, floods, asteroid collisions). (DOK 2)
1	4c	Gather and display local weather information such as temperature, precipitation, clouds, etc., on graphs and use graphs of weather patterns to predict weather conditions. (DOK 3) <ul style="list-style-type: none"> • Instruments (wind vane, rain gauge, thermometers, anemometers, and barometers) • Cloud types (cirrus, stratus, cumulus) • Water cycle (evaporation, precipitation, condensation)



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	Develop an understanding of the properties of Earth materials, objects in the sky, and changes in Earth and sky. (E)
1	4d Identify the causes and effects of various types of air, land, and water pollution and infer ways to protect the environment. (DOK 3)
4	4e Identify patterns in the phases of the Moon, describe their sequence, and predict the next phase viewed in the night sky. (DOK 1)
4	4f Describe the different components of the solar system (Sun, planets, Moon, asteroids, comets.) (DOK 1) <ul style="list-style-type: none"> • Gravitational attraction of the Sun • Phases of the Moon • Constellations
2	4g Explain how fossil records are used to learn about the past, identify characteristics of selected fossils, and describe why they may be found in many places. (DOK 2) <ul style="list-style-type: none"> • The Earth Science Museum at the Petrified Forest in Flora, MS • The Natural Science Museum in Jackson, MS