Student Learning Report: Grade 7 Science

Name _____

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Interactions of Matter and Energy

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Photosynthesis	☐ I can describe how energy is transformed in the process of photosynthesis. 7.5(A)				
Flow of Energy in Living Systems	☐ I can diagram the flow of energy through living systems. 7.5(B) ☐ food chains ☐ food webs ☐ energy pyramids				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

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Physical and Chemical Changes

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Changes in Matter	☐ I can tell the difference between a physical and a chemical change in matter. 7.6(A)				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

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Force, Motion, and Energy Relationships

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Energy Transformation	☐ I can diagram examples of transformations of energy within an organism. 7.7(A)				
Force and Motion	☐ I can demonstrate and diagram examples of forces that affect motion in organisms. 7.7(B) ☐ emergence of seedlings ☐ turgor pressure ☐ geotropism ☐ circulation of blood				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

Impacts on Earth's Systems

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Impact of Natural Events	☐ I can predict and describe how catastrophic events impact ecosystems. 7.8(A) ☐ floods ☐ hurricanes ☐ tornadoes				
	☐ I can describe the effects of weathering, erosion, and deposition on environments in ecoregions of Texas. 7.8(B)				
Impact of Human Activity	☐ I can create and describe a model that demonstrates the effects of human activity on groundwater and surface water in a watershed. 7.8(C)				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

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Components of the Solar System

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Characteristics that Support Life in Space	☐ I can describe characteristics of objects in our solar system that allow life to exist. 7.9(A) ☐ proximity of the Sun ☐ presence of water ☐ composition of the atmosphere				
Space Exploration	☐ I can identify accommodations that enabled manned space exploration. 7.9(B)				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				
Connecting Research	☐ I can relate the impact of research on scientific thought and society. 7.3(D)				

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Relationships of Organisms and Environments

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Interdependence	☐ I can describe how different environments support different varieties of organisms. 7.10(A) ☐ microhabitats in schoolyards ☐ biomes				
	☐ I can describe how biodiversity contributes to the sustainability of an ecosystem. 7.10(B)				
	☐ I can describe the role of ecological succession (for example, in a microhabitat of a garden with weeds). 7.10(C)				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

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Variations and Traits in Populations and Species

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Genetic Variation	☐ I can describe examples of features and behaviors within a population or species that enhance their survival. 7.11(B) ☐ external features ☐ behaviors (migration, hibernation) ☐ physiology of organisms (storage of food in a bulb)				
	☐ I can describe structures of organisms and use a dichotomous key for identification. 7.11(A)				
	☐ I can identify some changes in genetic traits that have occurred over several generations through natural selection, such as the Galapagos Medium Ground Finch. 7.11(C)				
	☐ I can identify some changes in genetic traits that have occurred over several generations through selective breeding, such as domestic animals and hybrid plants. 7.11(C)				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

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Structure and Function Within Living Systems

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Adaptations	☐ I can explain how internal structures of organisms have adaptations that allow specific functions (for example, gills in fish, hollow bones in birds, or xylem in plants). 7.12(A)				
Structure and Function of Cells	☐ I can describe the structure and function of plant and animal cell organelles. 7.12(D) ☐ cell membrane ☐ mitochondrion ☐ cell wall ☐ chloroplast ☐ nucleus ☐ vacuole ☐ cytoplasm				
	☐ I can tell the difference between an animal and a plant cell based on their organelles. 7.12(D)				
	☐ I can define the levels of organization in plants and animals. 7.12(C) ☐ cells ☐ tissues ☐ organs ☐ organ systems ☐ organisms				
	☐ I can compare the functions of cell organelles to the functions of an organ system. 7.12(E)				
	☐ I can describe the components of cell theory. 7.12(F)				
Organ Systems Functions	☐ I can describe the main functions and identify the major organs of the systems of the human organism. 7.12(B) ☐ circulatory ☐ excretory ☐ respiratory ☐ reproductive ☐ skeletal ☐ integumentary ☐ muscular ☐ nervous ☐ digestive ☐ endocrine				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

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Organism Response to Stimuli

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Response to Stimuli	☐ I can describe examples of how organisms respond to external stimuli found in the environment. 7.13(A) ☐ phototropism ☐ fight or flight				
	☐ I can describe examples of organisms' responses to internal stimuli that allow for homeostasis. 7.13(B) ☐ wilting in plants ☐ fever or vomiting in animals				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				

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Reproduction of Living Organisms

Process: Tools to Know		Notes	Check Up		
Planning/ Performing Investigations	☐ I can plan, design, and implement an investigation. 7.2(A), 7.2(B)				
Using Scientific Tools	☐ I can collect, record, and analyze information using scientific tools. 7.4(A)				

Content		Notes	Check Up		
Reproduction and Heredity	☐ I can compare the results of uniform or diverse offspring from asexual or sexual reproduction. 7.14(B)				
	☐ I can define heredity as the passage of genetic instructions from one generation to the next generation. 7.14(A)				
	☐ I can describe the genetic material in an organism that determines inherited traits. 7.14(C) ☐ genes ☐ DNA ☐ chromosomes				

Process: Ways to Show		Notes	Check Up		
Interpreting Information	☐ I can analyze and formulate explanations, communicate conclusions, and predict trends. 7.2(E)				
Constructing Models	☐ I can use models to represent the natural world. 7.3(B)				