Midlothian ISD 3rd Grade Science Rubric 2020-2021										
	<u>Science</u>	01 0	2 03	Q4	Not making appropriate progress towards target. Teacher assistance is required for success.	2 Demonstrates partial understanding or can perform portions of the target.	3 Meets expectations for target.			
3.5	Matter and energy.	Ĭ								
5AB	Describe and classify samples of matter as solids, liquids, and gases, and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container.				Does not consistantly identify materials based on their properites. Does not consistently know definition of solid liquid or gas by properites. Consistently relies on teacher support.	Making progress to identify the difference between solids, liquids and gasses. Can sometimes describe the movement of molecules, their organizaion and their shape. Sometimes relies on teachers support.	Accurately identifies the difference between solids, liquids and gasses. Can describe the movement of molecules, their organizaion and their shape. Rarely needs teacher support.	5B Is specific to 3rd grade focusing on the shape matter takes		
5C	Predict, observe, and record changes in the state of matter caused by heating or cooling.				Predictions or observations about changes caused by heating or cooling of different objects are random or inaccurate	Predicts, observes, and records the changes caused by heating or cooling of different objects with some assistance	Independently predicts, observes, and records the changes caused by heating or cooling of different objects.	Tested specifically in 5th		
5D	Recognize that a mixture is created when two materials are combined, such as gravel and sand or metal and plastic paper clips.				Some major misconceptions or inadequate understanding of the ability to recognize that a mixture is created when two materials are combined and can be physically separated.	Some minor misconceptions or incomplete understanding of the ability to recognize that a mixture is created when two materials are combined and can be physically separated.	Complete and correct understanding of the ability to recognize that a mixture is created when two materials are combined and can be physically separated.			
	Force, motion, and energy									
6A	Explore different forms of energy, including mechanical, light, sound, and thermal energy in everyday life.	ı			Identifies 2 or less types of energy and their use in our everyday life.	Identifies 3 or more types of energy and their use in our everyday life	Identifies all five types of energy and their use in everyday life.			
	Demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons				Major misconceptions or inadequate understanding of the ability to demonstrate and explain how position and motion can be changed by pushing and pulling objects	Demonstrates position and motion of an object can be changed by pushes and pulls	Demonstrates and explains position and motion of an object can be changed by pushes and pulls.	6B Is specific to 3rd grade focusing on position and motion changed by push and pull Tested specifically in 5th		
	Observe forces, such as magnetism and gravity acting on objects.				Observations lack evidence and show incomplete understanding of forces.	Observations are partially thought out and show some understanding of forces.	Observations are well thought out and thouroughly describe forces at work.			
3.7	Earth and space									
7A	Explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains.				Displays limited understanding of the make up of soils and how soil is formed.	Displays understanding of the make up of soils and some of the processes that create soil.	Records and explains how soil is formed from weathering of rocks along with decomposing plant and animal remains	Expanded to properties of soil in 4th		
7B	Investigate rapid changes in Earth's surface, such as volcanic eruptions, earthquakes, and landslides.				Investigation has some evidence of understanding rapid changes on the earth's surface and the way they affect the earth's surface.	Investigation shows evidence of understanding rapid changes on the earth's surface and the way they affect the earth's surface and	Investigation shows complete evidence of understanding rapid changes on the earth's surface and the way they affect the earth's surface and	Tested specifically in 5th		
7C	Explore the characteristics of natural resources that make them useful in products and materials, such as clothing and furniture, and how resources may be conserved.				Describe some characteristics of natural resources that make them useful in products and materials AND can somewhat describe how to conserve	Describe characteristics of natural resources that make them useful in products and materials OR can describe how to conserve	Describe characteristics of natural resources that make them useful in products and materials AND can describe how to conserve	Expanded in 4th to renewable vs nonrenewable		
3.8	Earth and space.									

	Observe, measure, record, and compare day-to-day weather changes in different locations at the same time that include air temperature, wind direction, and precipitation.	Can accurately observe, measure, record and compare weather changes in different locations with teacher support.	Can regularly observe, measure, record and compare weather changes in different locations with accuracy.	Can consistently observe, measure, record and compare weather changes in different locations with complete accuracy .	Skips 4th identify and complare characteristics in 5th
8B	Describe and illustrate the Sun as a star composed of gases that provides light and thermal energy.	Describes the sun as important but is not able to recall all of it's characteristics.	Partially describes what the sun is classified as, what it is made up of, and what it gives the earth.	Independently describes what the sun is classified as, what it is made up of, and what it gives the earth.	
8CD	Construct models that demonstrate the relationship of the Sun, Earth, and the Moon; AND identify the planets in Earth's Solar System and their position in relation to the Sun.	Identify few planets in Earth's solar system without correlation to position in relation of the sun and constructs models of the Sun, Earth, and Moon with assistance	Identify some of the planets in Earth's solar system and most of their positions in relation to the sun and constructs models of the Sun, Earth, and Moon	Identify all of the planets in Earth's solar system and their position in relation to the sun and constructs models of the Sun, Earth, and Moon	8D Is specific to 3rd grade focusing on order of planets related to the sun 8D Tested specifically in 5th
3.9	Organisms and environments				
9A	Observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem;	Descriptions of physical characteristics in an environment are unclear or inaccurate and lack connection to supporting plant and animal populations/communities within those environments	Describes one environment using one or two unique physical characteristics or partially explains how those characteristics support plant and animal populations/communities within those environments	Describes two or more environments using at least three unique physical characteristics and explains how those characteristics support plant and animal populations/communities within those environments	9A Skips 4th expands to interactions with living and non living in 5th Tested specifically in 5th
9B	Identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem, such as removal of frogs from a pond or bees from a field.	Can partially identify the flow of energy and describe a food chain, but is unclear about how changes will affect the ecosystem.	Can identify and describe the flow of energy in a food chain and/or can partially predict how changes will affect the ecosystem.	Can identify and describe the flow of energy in a food chain and predict how changes will affect the ecosystem.	
9C	Describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations.	Can minimally describe environmental changes where some organisms thrive and others perish or move to new locations	Can partially describe environmental changes where some organisms thrive and others perish or move to new locations	Can independently describe environmental changes where some organisms thrive and others perish or move to new locations	9C Skips 4th expands to predict changes by living organisms in 5th
3.1	Organisms and environments				
10A	Explore how structures and functions of plants and animals allow these organisms to survive in a particular environment.	Struggles to identify structures and functions of plants and animals and describe how they contribute to survival in their environment without teacher support.	May be able to identify the structures of plants and animals, but struggles to connect it with the function and how it contributes to survival in their environment	Is able to identify structures and functions of plants and animals and describe how they contribute to survival in their environment.	
10B	Investigate and compare how animals and plants such as tomato plants, frogs, and lady beetles undergo a series of orderly changes in their diverse life cycles.	Major misconceptions or inadequate understanding of the ability to identify and compare how animals and plants undergo a series of orderly changes in their diverse life cycles.	Minor misconceptions or incomplete understanding of the ability to identify and compare how animals and plants undergo a series of orderly changes in their diverse life cycles.	Complete and correct understanding of the ability to identify and compare how animals and plants undergo a series of orderly changes in their diverse life cycles.	Expanded in 4th to life cycles explore, illustrate and compare Tested specifically in 5th