

SUBJECT: SCIENCE

GRADE(S) 4

FIRST QUARTER							
ESSENTIAL INDICATORS			RESOURCES	SUPPORTING INDICATORS			RESOURCES
ES	8	Describe how wind, water and ice shape and reshape Earth's land surface by eroding rock and soil in some areas and depositing them in other areas producing characteristic landforms (e.g., dunes, deltas, glacial moraines).		ES	1	Explain that air surrounds us, takes up space, moves around us as wind, and may be measured using barometric pressure	
ES	9	Identify and describe how freezing, thawing and plant growth reshape the land surface by causing the weathering of rock.		ES	6	Trace how weather patterns generally move from west to east in the United States	
ES	10	Describe evidence of changes on earth's surface in terms of slow processes (e.g., erosion, weathering, mountain building, deposition) and rapid processes (e.g. volcanic eruptions, earthquakes, landslides).		ES	7	Describe the weather that accompanies cumulus, cumulonimbus, cirrus and stratus clouds.	
				SI	1	Select the appropriate tools and use relevant safety procedures to measure and record length, weight, volume, temperature and area in metric and English units	
				SI	3	Develop, design and conduct safe, simple investigations or experiments to answer questions.	

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SECOND QUARTER							
ESSENTIAL INDICATORS			RESOURCES	SUPPORTING INDICATORS			RESOURCES
SWK	2	Record the results and data from an investigation and make a reasonable explanation		SWK	3	Explain Discrepancies in an investigation using evidence to support findings.	
PS	1	Identify characteristics of a simple physical change (e.g., heating or cooling can change water from one state to another and the change is reversible).		SWK	1	Differentiate fact from opinion and explain that scientists do not rely on claims or conclusions unless they are backed by observations that can be confirmed.	
PS	2	Identify characteristics of a simple chemical change. When a new material is made by combining two or more materials, it has chemical properties that are different from the original materials (e.g., burning paper, vinegar and baking soda).		PS	5	Compare ways the temperature of an object can be changed (e.g., rubbing, heating, bending of metal).	
PS	3	Describe objects by the properties of the materials from which they are made and that these properties can be used to separate or sort a group of objects (e.g., paper, glass, plastic, metal).		SI	4	Explain the importance of keeping conditions the same in an experiment.	
PS	4	Explain that matter has different states (e.g., solid, liquid and gas) and that each state has distinct physical properties		SI	5	Describe how comparisons may not be fair when some conditions are not kept the same between experiments.	
				SI	6	Formulate instructions and communicate data in a manner that allows others to understand and repeat an investigation or experiment.	
				SI	4	Explain why keeping records of observations and investigations is important.	

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THIRD QUARTER							
ESSENTIAL INDICATORS			RESOURCES	SUPPORTING INDICATORS			RESOURCES
ST	2	Investigate how technology and inventions change to meet peoples' needs and wants		ST	1	Explain how technology from different areas (e.g., transportation, communication, nutrition, healthcare, agriculture, entertainment, and manufacturing) has improved human lives.	
ST	3	Describe, illustrate and evaluate and the design process used to solve a problem.					

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FOURTH QUARTER						
ESSENTIAL INDICATORS		RESOURCES	SUPPORTING INDICATORS			RESOURCES
PS	Electricity heat and matter The total amount of matter is conserved when it undergoes a change.					
PS	Heat results when substances burn when certain kinds of materials rub against each other, and when electricity flows through wires.					