Fourth Grade Science Curriculum Map

Time frame	Unit	Standards	Evidence of understanding	Instructional Strategies	Assessment
Earth & Space (Chapters 1-2)	1. Earth's Surface has specific characteristics and land forms and can be identified.	ESS1	• Identify / describe major types of landforms. • Explain how land forms develop. • Recognize ways that landforms differ from each other. • Identify processes that can change the Earth's surfaces. • Understand how Earth's surface can change due to erosion and deposition. • Recognize that 70% of the Earth's surface is water.	Instruction will be provided using the following: *Smart Board Lessons, Power Point Presentations, Textbook Resources, Supplemental Resources/Materials, Hands-On Experiments, make a landform model with clay.*	Informal Assessments, Projects, teacher-made quizzes, formative assessments
	2. The surface of Earth changes due to weathering	ESS2	• Understand that rocks change their size/shape or form due to water / ice movement. • Analyze different weather patterns. • Identify the forces that can change Earth's surface • Differentiate between erosion and weathering. • Understand that weathering can occur at different rates.	Instruction will be provided using the following: *Smart Board Lessons, Power Point Presentations, Textbook Resources, Supplemental Resources/Materials, Hands-On Experiments, create a 3D model of a sinkhole*	Informal Assessments, Projects, teacher-made quizzes, formative assessments
	3. The surface of earth changes due to erosion and deposition	ESS3	• Describe the differences between weathering/erosion . • Observe slow and rapid changes on the Earth's surface. • Compare / Contrast the effects of gravitational forces on rock, water and soil. • Understand how gravity plays an important role in erosion.	Instruction will be provided using the following: *Smart Board Lessons, Power Point Presentations, Textbook Resources, Supplemental Resources/Materials, Hands-On Experiments, build a model to demonstrate the movement of glacial ice.*	Informal Assessments, Projects, teacher-made quizzes, formative assessments

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Life Science (Chapters 3-4)	1. Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.	LS1	• Identify differences between biotic/ abiotic factors • Explain changes that occur in biotic/abiotic components of an ecosystem • Observe the habitats of organisms within an ecosystem • Describe the seven major ecosystems on Earth • Recognize that organisms with similar needs compete with each other for resources	Instruction will be provided using the following: *Smart Board Lessons, Power Point Presentations, Textbook Resources, Supplemental Resources/Materials, Hands-On Experiments, research a major geological event*	Informal Assessments, Projects, teacher-made quizzes, formative assessments
	2. Fossils can be compared to one another and to present day organisms according to their similarities and differences	LS2	• Understand how fossils records provide evidence for population of species • Recognize ways that living things with soft body parts can become fossils • Observe fossils and compare to living organisms • Identify evidence that can be used to determine the existence of an organism	Instruction will be provided using the following: *Smart Board Lessons, Power Point Presentations, Textbook Resources, Supplemental Resources/Materials, Hands-On Experiments, use of hand lens and microscopes to look at different organisms/ specimens*	Informal Assessments, Projects, teacher-made quizzes, formative assessments

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Physical Science (Chapters 5-6)	1. The total amount of matter is conserved when it undergoes a change.	PS1	• Identify matter as a solid, liquid or a gas • Observe physical properties of matter and chemical properties of matter • Explain why volume of water decreases when exposed to air • Recognize that the amount of matter stays constant during any change	Instruction will be provided using the following: *Smart Board Lessons, Power Point Presentations, Textbook Resources, Supplemental Resources/Materials, Hands-On Experiments, with changing matter.*	Informal Assessments, Projects, teacher-made quizzes, formative assessments
	2. Energy can be transformed from one form to another or can be transferred from one location to another.	PS2	• Demonstrate ways energy can be used to move objects • Compare different types of stored energy. • Identify sources of energy and the different forms it can take. • Compare/contrast light circuits. • Understand the difference between working / nonworking circuits • Describe how thermal energy moves as heat.	Instruction will be provided using the following: *Smart Board Lessons, Power Point Presentations, Textbook Resources, Supplemental Resources/Materials, Hands-On Experiments- design a simple circuit that contains an on/off switch.*	Informal Assessments, Projects, teacher-made quizzes, formative assessments