## Frameworks for Success in Science MSP Grant

**Unit Plan Map** Grades K-6

P.C. Pinner - Revised July 2011

Qtr	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1	<b>OBSERVING:</b> K-1	<b>OBSERVING &amp;</b>	LIFE CYCLES: 2-1	PLANTS &	<i>CELLS:</i> 4-1	HUMAN SYSTEMS:	<i>MATTER:</i> 6-1
	Weather Patterns and	CLASSIFYING: 1-1	Complex Life Cycles	ANIMALS: 3-1	Plants versus Animals	Human Tissues,	Properties of and
	Items in our	Plants and Animals		Structures to Survive	FOSSILS &	Organs, Systems &	Changes in Matter
	Environment	Seasons & Weather			<b>EVOLUTION</b>	Heredity	_
	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:
	Interdependence:	Classification: plants and	Classification more complex	Interdependence: plants and	<u>Cells, Tissues, Organs &amp;</u>	Cells, Tissues, Organs &	
	living/nonliving	animals	life cycles; different animals = different life	animals depend on each other	Systems: plant/animal cells	Systems: organ systems in	
		Unity & Diversity: simple	cycles	<u>Cells, Tissues, Organs &amp;</u>		human body	
		physical characteristics of plants		<b>Systems:</b> structures to survive (feet beaks plant parts)	<b>Biological Evolution:</b> fossil	Heredity: physical traits that	
				Unity & Diversity	plants and animals are related	connect humans in families	
				adaptations in different	Heredity: evolved traits for		
	Fanage Shane the Forth	Foress Shans the Forth		environments	plants and animals		Noture of Motton
	<u>Forces Shape the Earth:</u> observing daily weather	observing daily weather &					matter: elements/atoms: Periodic table.
	Nature of Matter: classify	connecting it to the seasons				_	physical & chemical
	physical properties of general items						properties/reactions
2	OBSERVING: K-2	LIFE CYCLES: 1-2	HABITATS & 2-2	FORCES: 3-2	HAWAI'I'S 4-2	GLOBAL 5-2	<b>RELATED FORCES:6-2</b>
_	Living vs. Non-living	Living Things Grow.	ECOSYSTEMS	Simple Machines Do	ENVIRONMENT:	ENVIRONMENT &	Electricity and
		Change and Die		Work	Physical and Living	ECOSYSTEMS:	Magnetism
		chunge und Die		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Systems	Energy Cycles	
					Systems	Through Fcosystems	
	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:	Scientific Inquiry/TECH:
	Interdependence:	Classification: simple life	Interdependence: habitats &		Unity & Diversity:	Cycles of Matter &	
	living/nonliving (once-living)	cycles, different plants = different	ecosystems, food chain/web		environment – introduced versus	Energy: living/nonliving matter	
	animals	Cucles of Matter &	Unifying Concepts:		Conservation	interact in the environment	
	Heredity: offspring and parents	Cycles of Watter & Energy: living organisms use	environmental changes affect living things		Interdependence:	Interdenendence	
		energy (food chains)	Unity & Diversity: living		environmental conditions affect	matter/energy cycle through food	
		Heredity: adaptations to survive	things have survival characteristics		living things, organisms respond to each other/their environment	chains, food webs and through	
						ecosystems	
	Nature of Matter: classify			Forces & Motion: simple	<b>Forces Shape the Earth:</b>		Forces & Motion: complex
	physical properties of living and nonliving items			machines include levers, wedges, nulleys, screws	fast and slow processes on		electrical circuits (parallel and series)
	nonity ing items			<b>Push</b> /pull motion and trajectory	earth's crust; Specific to hot		fields
				can be measured	the HAWAIIAN ISLANDS		Electrical circuits create magnetic fields
				The Universe: mass and			electricity & magnetism are related
				gravity affect motion and are measured (spring scales)			(electromagnets and motors)
				moustion (spring scales)			

F	rameworks for	<sup>•</sup> Success in So	cience MSP Gra	ant Unit Pla	a <i>n Map</i> Grade	<b>P.C.</b>	Pinner - Revised July 2011
3	OBSERVING: K-3 Objects in Our Sky	MATTER: 1-3 What is Matter?	ROCKS & MINERALS: 2-3 How Are Earth Materials Formed?	FORMS OF ENERGY: 3-3 Light, Heat and Sound	MATTER: 4-3 Atoms and Electricity	LIGHT & LENSES: 5-3 Telescopes OUR SOLAR SYSTEM	<i>ENERGY:</i> 6-3 <i>Transfer and</i> <i>Transformation</i>
	Scientific Inquiry/TECH: <u>The Universe:</u> celestial objects in the sky (moon, sun, stars) <u>Nature of Matter:</u> classify physical properties	Scientific Inquiry/TECH: <u>Nature of Matter:</u> matter & states of matter; matter can change physically	Scientific Inquiry/TECH: <u>Earth Materials:</u> Earth is made of different materials; rocks are formed with minerals	Scientific Inquiry/TECH: Energy & Transformation: heat from sun: light heat &	Scientific Inquiry/TECH: <u>Nature of Matter:</u> atoms have a structure that allows materials to combine; physical and	Scientific Inquiry/TECH: Earth in the Solar System: sun, planets, other objects in the solar system revolve around the sun; Waves: astronomers use telescopes; light, lenses & telescopes; lightreflect,	Scientific Inquiry/TECH: Energy & Transformation: forms of energy, transfer, transform
				waves: light and sound	chemical reactions create/destroy matter <u>Energy &amp;</u> <u>Transformation:</u> electron movement is the reason for electrical currents. Simple circuits with switches.	refract, absorb	conserved; heat – conduction, radiation, convection <u>Waves:</u> Electromagnetic spectrum <u>Forces &amp; Motion:</u> forces affect objects (friction, kinetic/potential energy)
4	OBSERVING: K-4 Gravity	WATER CYCLE: 1-4 Sun and Weather Work Together	NATURAL 2-4 RESOURCES: Conservation and Pollution	EARTH FORCES: 3-4 The Water Cycle Forms and Shapes Earth Materials	OUR SOLAR SYSTEM: 4-4 Movements of the Earth, Moon and Sun	LITHOSPHERE: 5-4 Earth's Internal Processes Change the Earth's Surface	ENERGY and the 6-4 ENVIRONMENT
4	Scientific Inquiry/TECH:	Scientific Inquiry/TECH: <u>The Universe:</u> sun drives the water cycle <u>Forces Shape the Earth:</u> water cycle creates weather	Scientific Inquiry/TECH: <u>Earth Materials:</u> natural resources, conservation & pollution	Scientific Inquiry/TECH: <u>Earth Materials:</u> weathering/erosion changes the surface of the earth <u>Forces Shape the Earth:</u> the water cycle is related to weather and climate The water cycle contributes to	Scientific Inquiry/TECH: <u>The Universe:</u> movements of the sun, moon & constellations	Scientific Inquiry/TECH: Forces Shape the Earth: fast processes on earth's crust are driven by internal forces; (plate tectonics, volcanoes, earthquakes, tsunamis – <u>ONLY</u> <u>INTRO</u> – 8 <sup>th</sup> grade covers in detail)	Scientific Inquiry/TECH: Cycles of Matter & Energy: energy and the environment Earth Materials: natural resources can supply energy to do work
	Nature of Matter: Forces & Motion: classify physical properties of objects: objects fall to the ground (gravity) KEIKI PROJECT	KEIKI PROJECT	Forces & Motion: magnets – bridging activity – inquiry- based KEIKI PROJECT	weathering and erosion KEIKI PROJECT	Forces of the Universe: Earth moves with rotation (day & night); solar system has sun, gravity affects Earth, moon CULMINATING PROJECT:	CULMINATING PROJECT:	Forces of the Universe: sun's energy can be used/converted into useable electrical energy CULMINATING PROJECT:

Unit Plan Map Grades K-6

