

**Elementary Science/Health Curriculum
Prioritization and Mapping Revisions
June 9, 2004**

Tammy Harold, Peggy Roland, Michelle Drake, Lanese Thomas, Susan Stewart, and Melani Herren met under the guidance of Phyllis Means, Director of Student Learning, to review and revise the Science/Health Curriculum Prioritization and Map on June 9, 2004. Comments and concerns submitted by individual schools were addressed. As a result, revisions were made to the order that concepts will be taught in Kindergarten and First Grade. No changes were made to other grade levels.

Senses are introduced in the beginning of the kindergarten year to provide an appropriate foundation for inquiry that can be utilized throughout the remainder of the year. Some comments from teachers throughout the county reflected a desire to teach Life Sciences in the spring. For this reason, the Life Science domain has been divided into two parts.

Similarly, first grade teachers expressed a desire to teach Earth Science in the fall so that students can observe weather patterns and seasonal changes. Life Sciences are moved to the spring in order to make timely real-world connections.

Consideration was also given to the overall sequence of science concepts from year to year (kindergarten through fifth grade).

Elementary Science and Health Curriculum Map

GRADE LEVEL	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY
K	←	LIFE Disease Prevention	←	EARTH Nutrition	INQUIRY Mental	PHYSICAL Family Living Health	←	LIFE Personal Health Growth & Develop.		→
	Safety	→	Drugs	→		→	→			→
	←	EARTH Disease Prevention	←	PHYSICAL Nutrition	INQUIRY Mental	Health	←	LIFE Personal Health Growth & Develop.		→
	Safety	→	Drugs	→		→	→			→
2 nd	←		LIFE Drugs	PHYSICAL Nutrition	INQUIRY Mental	EARTH Family Living Health	←	PHYSICAL Personal Health Growth & Develop.		→
	Safety	→	→	→		→	→			→
	←	LIFE Disease Prevention	←	EARTH Nutrition	INQUIRY Mental	Family Living Health	←	PHYSICAL Personal Health Growth & Develop.		→
	Safety	→	Drugs	→		→	→			→
4 th	←	PHYSICAL Disease Prevention	←	LIFE Nutrition	INQUIRY Mental	Health	←	EARTH Personal Health Growth & Develop.		→
	Safety	→	Drugs	→		→	→			→
5 th	←	PHYSICAL Disease Prevention	←	LIFE Nutrition	INQUIRY Mental	Family Living Health	←	EARTH Personal Health Growth & Develop.		→
	Safety	→	Drugs	→		→	→			→

Note: Science objectives should receive emphasis. Many health objectives can be taught within the science and guidance lessons. Suggested time frames are approximate. (Revised June 9, 2004)

Science Prioritized Curriculum Map A

Kindergarten

Time	Understand	Know/Do	QCC	Priority
August-May	INQUIRY Nature of scientific knowledge *Explore concepts through senses	Process Skills	1	E
		Reference Skills	2	C
		Safety	3	E
		Activities/Tools	4	C
August-September	LIFE SCIENCE (PART 1) Senses Differentiates between living/nonliving things	Sorts and classifies	15,16	E
		Differences exist within species	11,12	E
		Classifies living and nonliving things	11,12	E
October-November	EARTH SCIENCE Earth's Surface Rocks/Soil	Characteristics	17,19	I
		Sorts by criteria	17,18	C
December-February	PHYSICAL SCIENCE Properties of Matter Energy and its Transformation	Different objects made of various materials	5,6,7	I
		Predicts and tests properties	5,6,7	C
		Things move in different ways	8,9,10	E
		Light moves in straight lines	8,9,10	I
		How shadows change	8,9,10	I
		Sorts by color	8,9,10	E
March-May	LIFE SCIENCE (PART II) Environment/Habitat Plants and Animals	Different plants/animals live in specific types	13	I
		Basic needs	9,13,14	E

Priority Code: **E = Essential** **I = Important** **C = Compact**

(Revised June 9, 2004)

Science Prioritized Curriculum Map A

First Grade

Time	Understand	Know/Do	QCC	Priority
August-May	INQUIRY Nature of scientific knowledge	Process Skills	1	E
		Reference Skills	2	C
		Safety	3	E
		Activities/Tools	4	I
August-October	EARTH SCIENCE Weather	Daily conditions/seasonal patterns	15,17	E
		Major events	16	E
		Technology	16,18	I
	Earth	Components of Earth's materials	(McREL 1)	I
November-January	PHYSICAL SCIENCE Sound	Production by vibration	5	I
		Pitch and intensity	6,7	I
		Forces	8,9,10 (McREL 13)	E C
February-May	LIFE SCIENCE Genetics	Plants and animals resemble parents	14	E
		Compares various species	11,12	E
		Adaptations for survival	13	C

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(Revised June 9, 2004)

Science Prioritized Curriculum Map B

First Grade

Essential Questions	Assessment	Resource
<p>INQUIRY How do scientists work?</p> <p>EARTH SCIENCE What is weather? What are the different seasons? What are some tools used to predict weather? What is the Earth made of?</p> <p>PHYSICAL SCIENCE What are sounds? How are sounds different? How does a magnet work? Through what materials can a magnet attract/repel? What is gravity?</p> <p>LIFE SCIENCE How do plants and animals look like their “parents”? What are some kinds of animals? How do animals survive?</p>		

(June 9, 2004)

Science Prioritized Curriculum Map B

Essential Questions	Assessment	Resource
<p>INQUIRY How do scientists work?</p> <p>LIFE SCIENCE (PART I) How do senses help me learn? What are the differences between living and nonliving things?</p> <p>EARTH SCIENCE What makes up Earth's land? How can we sort rocks? What can we observe about soil?</p> <p>PHYSICAL SCIENCE What are objects made of? What can we find out about objects? How do we move objects? How does light travel? How do shadows change? How can color be used to group objects?</p> <p>LIFE SCIENCE (PART II) Where do plants grow? Where do animals live? What do plants need to grow? What do animals need to live?</p>		

(June 9, 2004)

Science Prioritized Curriculum Map A

Second Grade

Time	Understand	Know/Do	QCC	Priority
August-May	INQUIRY Nature of scientific knowledge	Process Skills	1	E
		Reference Skills	2	I
		Safety	3	E
		Activities/Tools	4	I
August-December	LIFE SCIENCE Animals	Basic needs	(McREL 6)	C
		Plants		
		Basic needs	10,13	E
		Structure and Function	12	E
		Plant Growth	11,13	E
		Uses of Plants	14	E
		Photosynthesis	10	I
		Environment		
		Characteristics of habitat	15,16	E
		Interdependence of organisms	16, 18	E
		Adaptations	(McREL 4)	C
	Transfer of Energy	Food chains/webs	17	E
January-February	EARTH SCIENCE Space	Patterns of Sun and Moon	19	E
		Motion of Solar System	20	E
March-May	PHYSICAL SCIENCE States of Matter	Defines mass and matter	5,6	I
		Changes	8,9	I
		Physical Properties	6,7	I

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(June 9, 2004)

Science Prioritized Curriculum Map B

Second Grade

Essential Questions	Assessment	Resource
<p>INQUIRY How do scientists work?</p> <p>LIFE SCIENCE What are the basic needs of an animal? What are the basic needs of plants? How does each part of a plant work? How do plants grow? What are uses of plants? How do plants make their own food? What is a habitat? How do plants and animals help each other? What are some animal and plant adaptations? What are food chains and food webs?</p> <p>EARTH SCIENCE Why do the sun and moon appear to change? How do the Earth, moon, and planets move around the sun?</p> <p>PHYSICAL SCIENCE What is mass and matter? How can matter change? What are ways to identify matter?</p>		

(June 9, 2004)

Science Prioritized Curriculum Map A

Third Grade

Time	Understand	Know/Do	QCC	Priority
August-May	INQUIRY Nature of scientific knowledge	Process Skills	1	E
		Reference Skills	2	E
		Safety	3	E
		Activities/Tools	4	I
August-October	LIFE SCIENCE Cells	Basic Unit of Life	13	E
		Basic Life Processes	(McREL 4)	C
	Plants/Animals	Life Cycles	15	E
		Basic Life Processes	12	I
	Genetics	Inherited Characteristics	14	I
	November-January	EARTH SCIENCE Earth's Surface	Changes	(McREL 2)
Composition/Properties of rocks, soils, minerals			18,19,20	E
Rock Cycle		21	E	
Fossils		Formation/Discovery	16	I
	Similarities/Differences	16,17	I	
February-May	PHYSICAL SCIENCE Forms of Energy	Forms of and changes	5,6	I
		Heat	5,6,7	E
		Alternative sources/Technology	8	C
	Simple Machines and Work	Forces and Motion	9	E
		Identifies/Compares/Demonstrates	9,10,11	E

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(June 9, 2004)

Science Prioritized Curriculum Map B

Third Grade

Essential Questions	Assessment	Resource
<p>INQUIRY How do scientists work?</p> <p>LIFE SCIENCE What is the role of a cell in living things? How do living things interact within an environment? What are the life cycles of plants and animals? How are traits passed from parent to child?</p> <p>EARTH SCIENCE How do landforms change? What are the characteristics of rocks, soils, and minerals? What is the rock cycle? How are fossils formed? How are fossils uncovered? How are fossils alike and different?</p> <p>PHYSICAL SCIENCE What are some sources of heat energy? How does heat move through different materials? What are the pros and cons of using alternative heat sources? How do forces cause motion? How do simple machines help people do work?</p>		

(June 9, 2004)

Science Prioritized Curriculum Map A

Fourth Grade

Time	Understand	Know/Do	QCC	Priority
August-May	INQUIRY Nature of scientific knowledge	Process Skills/Reference Skills	1,2	E
		Safety, Activities/Tools	3,4	I
November-January	LIFE SCIENCE Transfer of Energy Behavior/Recycling	Food Chains/Webs	23,24	I
		Interaction between organism/environment	(McREL 6)	C
		Importance/Examples Pollution	26 25	I I
February-May	EARTH SCIENCE Space Weather	Solar System	33,34,35	E
		Star Patterns	(McREL 3)	C
		Patterns of Movement	34,35,36,37	E
		Technology	38	C
		Water Cycle	28	I
August-October	PHYSICAL SCIENCE Forces Sound Light Energy	Seasons/Climate	27,31,32,37	E
		Instruments/Maps & Charts	29,30	E
		Electricity	7,8,9,10,11	E
		Magnetism	5,6	E
		Sources and Properties	12, 13,14	E
		Wave Attributes	14,15	E
		Structure of Ear	16	E
		Technology	17	C
		Characteristics of Light	19,21	E
		Visible Spectrum	18	E
		Shadows	20	I
Technology	22	C		

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(June 9, 2004)

Science Prioritized Curriculum Map B

Fourth Grade

Essential Questions	Assessment	Resource
<p>INQUIRY How do scientists work?</p> <p>LIFE SCIENCE How do food chains and food webs affect our ecosystem? How do the organism and environment affect one another? Why is it important to recycle? What are some causes and solutions for pollution?</p> <p>EARTH SCIENCE How do Earth and its moon move? How do objects move in the solar system? What patterns do celestial objects form in the sky? What are different technological devices used to study our universe? What is the role of the water cycle in predicting weather? What causes the seasons? What affects climate? What tools are used to predict weather?</p> <p>PHYSICAL SCIENCE What are the different components and characteristics of electricity? What are the different components and characteristics of magnetism? How does sound differ from various sources? How do sound waves travel? What role does the ear have in hearing sound? What are the tools used to measure sound? What are the characteristics of light? How are light and color related? What effect does light have on an object at different angles? What tools can be used to measure light?</p>		

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Science Prioritized Curriculum Map A

Fifth Grade

Time	Understand	Know/Do	QCC	Priority	
August- May	INQUIRY Nature of scientific knowledge	Process Skills/Reference Skills	1,2	E	
		Safety, Activities/Tools	3,4	I	
November- January	LIFE SCIENCE Diversity of Life	Classification/Kingdoms	18,19	E	
		Animal Adaptations	17	I	
		Genetics	20	I	
		Human Body Systems	21,22	E	
February- May	EARTH SCIENCE Oceans	Food Pyramid	23	I	
		Technology	24	C	
		Ocean Floor	30,31	E	
		Water Content	32	C	
February- May	EARTH SCIENCE Oceans	Exploration	34	C	
		Natural Resources	33	C	
		Earth's Surface	23,25,26,28,29	E	
		Plate Tectonics	27	E	
August- October	PHYSICAL SCIENCE Matter	Atomic Structure	5	E	
		Physical/Chemical Changes	8	E	
		Periodic Table	7	E	
		Modern Materials	9	I	
		Classify/Compares properties	6	I	
		Forces	Gravity	15,16	E
			Potential/Kinetic Energy	10	I
			Newton's Laws of Motion	11,12,13,14	E

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Science Prioritized Curriculum Map B

Fifth Grade

Essential Questions	Assessment	Resource
<p>INQUIRY How do scientists work?</p> <p>LIFE SCIENCE How are animals classified? What are the protective adaptations of animals? Why are off springs like their parents? What are the body systems and their functions? What are the components of the food pyramid? What are the effects of technology on food and nutrition?</p> <p>EARTH SCIENCE How does ocean water move? What is the topography of the ocean floor? How do people explore and use the ocean's resources? What are the processes and tools that change the Earth's surface? How do the tectonic plates affect the Earth's surface?</p> <p>PHYSICAL SCIENCE What is the atomic structure of the atom? How do physical and chemical changes differ? What is the periodic table? What modern materials are produced from chemical reactions? How can tools be used to compare and classify various properties of matter? What is the relationship between mass and the force of gravity? What are Newton's Laws of Motion?</p>		

(June 9, 2004)

Health Prioritized Curriculum Map A

Kindergarten

Time	Understand	Know/Do	QCC	Priority
October	ALCOHOL, TOBACCO, & OTHER DRUGS	Safe Use of Medicines Poison Safety	1 2	I E
September	DISEASE PREVENTION	Hand Washing	3	I
January	FAMILY LIVING	Roles of Family Members	4,5	E
March	GROWTH AND DEVELOPMENT	Growth Patterns Physical Characteristics Function of Skin	6 7 8,9	E I C
August-May	MENTAL HEALTH	Personal Respect Self-management Stress Management	10 11,13 12	I E C
November	NUTRITION	Food	14,15,16	E
February	PERSONAL HEALTH	Body Parts Senses Hygiene Germs Decision Making	17 18 19 20,21 22	E E E I C
August	SAFETY	Environmental Violence Prevention Resources Dangers	23 24 25 26	E C I E

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