

# Grade Five Science Scope and Sequence

## Pacing Chart

### SY 2005 – 2006

Area of Study	Time Period	Major Understandings	Activities/Assessments
S7 Earth and Space Science	1st Quarter/Beginning 2 <sup>nd</sup> Quarter	Students will demonstrate a conceptual understanding of Earth's systems, history, and significance in the solar system.	Scott Foresman Text adoption and related materials, Land and Water STC Kit, M&M Earth Layer/Graphing Activity, Spotlight on Science, teacher activity books, hands on classroom display (fossils, lava rock, petrified wood, rocks, teacher created assessments, related videos, student project
S5 Physical Science (Matter)	2nd Quarter	Students will demonstrate a conceptual understanding of matter (examine and describe properties of common elements).	Scott Foresman text adoption and related materials, Matter Unit (UC Irvine), teacher activity books, teacher created assessments, student project
S5 Physical Science (Energy)	End of 2 <sup>nd</sup> Quarter, 3 <sup>rd</sup> Quarter, end of 4 <sup>th</sup> Quarter	Students will demonstrate a conceptual understanding of motion and energy, to include strength of force and resulting motion, and the transfer of energy (changing forms of energy).	Scott Foresman text adoption and related materials, websites, AIMS, teacher activity books, student investigations/demonstrations, Floating and Sinking STC Kit
S4 Science and Technology	On going throughout the school year	Students will demonstrate an understanding about science and technology and the nature of technological design.	Scott Foresman text adoption, assigned experimental design activities, Land and Water STC Kit, Floating and Sinking STC Kit, student research (3 <sup>rd</sup> quarter project)
S6 Life Science	3 <sup>rd</sup> Quarter/4 <sup>th</sup> Quarter	Students will demonstrate a conceptual understanding of the structure and function of living systems and ecosystems.	Scott Foresman text adoption and related materials, Science Discovery, Ecosystem STC Kit, assessments include textbook as well as teacher created assessments
S1 Scientific Inquiry	Ongoing throughout the school year	Students will conduct investigations using the processes of scientific inquiry.	Scott Foresman inquiry materials, STC Kits, related curriculum investigations, assigned experimental designs, Science Fair Project (4 <sup>th</sup> quarter project)
S3 Science in Personal and Social Perspectives	Ongoing throughout the school year	Students will demonstrate an understanding of safety as it relates to natural and personal hazards.	Scott Foresman text adoption, teacher instruction/observations, lab safety contract, STC Ecosystem Kit
S2 History and Nature of Science	3 <sup>rd</sup> Quarter	Students will demonstrate an understanding and appreciation of science as a human endeavor, to include the nature and history of science.	Scientist/Invention Research Report

## Science Vocabulary 5<sup>th</sup> Grade

Bacteria	cell	cell membrane	cell wall
Chloroplast	classify	cytoplasm	trait
Genus	invertebrate	kingdom	mammal
Nucleus	species	cell	vascular plant
Vertebrate	virus	fertilization	pollination
Adaptation	cast	fossil	mold
Petrified	community	consumer	decomposer
Ecology	ecosystem	food web	habitat
Niche	population	producer	scavenger
Photosynthesis	atom	chemical change	chemical property
Chemical reaction	compound	electron	element
Mixture	molecule	neutron	nucleus
Periodic table	proton	solution	physical change
Physical property	acceleration	friction	air resistance
Gravity	inertia	mass	speed
Velocity	weight	frequency	chemical energy
Radiant energy	wavelength	thermal energy	sound energy
Potential energy	vibration	mechanical energy	kinetic energy
Electrical energy	nuclear energy	watt	volt
Switch	lightning	kilowatt	electric current
Generator	atmosphere	core	crust
Deposition	erosion	hydrosphere	igneous rock
Lithosphere	mantle	mineral	metamorphic rock
Plate	weathering	rock cycle	plate tectonics
Sedimentary rock	acid rain	air pollution	carbon monoxide
Fossil fuel	groundwater	ozone	nonrenewable resource
Pollutant	renewable resource		climate
Condense	evaporate	global warming	greenhouse effect
Greenhouse gases	humidity	precipitation	runoff
Water vapor	asteroid	comet	constellation
Elliptical orbit	galaxy	light year	meteor
Meteorite	reflection	refraction	respiratory system
Circulatory system	inhale	exhale	scientific method
Purpose	hypothesis	procedure	observations
Results	conclusion	food guide pyramid	