

Planning Guide For Grade 6 Science

Topic	PWC Objective(s)	Supporting SOL	Suggested Time Allocation	VA SOL Reporting Category
Refining Science Skills	6.1 / Infused Observations involving fine discrimination; classification systems; measurement; scale models; hypotheses; methods to test predictions and inferences; manipulate a variable with multiple trials; collect, analyze, report data using appropriate measurements and in appropriate graphic representations; design models; develop an understanding of the nature of science	6.1 a-k	4 weeks (infused throughout with content-specific objectives)	Scientific Investigation
Energy Sources, Origins, Transformations, Uses	6.2 / Infused Potential and kinetic energy; importance of sun; renewable energy sources; nonrenewable energy sources; energy transformations	6.2 a, e	3 weeks	Force, Motion, Energy, and Matter
		6.2 b-d 6.9 a-d		Earth and Space Systems
Energy in the Atmosphere	6.3 Earth's energy budget; radiation and convection; motion of the atmosphere and the oceans; cloud formation; role of heat energy in weather-related phenomena	6.3 a-e	4 weeks	Force, Motion, Energy, and Matter
Matter	6.4 Subatomic particles; elements; chemical symbols; combining atoms; chemical formulas; chemical equations; elements that comprise solid Earth, living matter, ocean, and the atmosphere	6.4 a-g	4 weeks	Force, Motion, Energy, and Matter
Earth's Waters	6.5(a) Importance of water as a solvent; properties of water; action of water in chemical, physical weathering; ability of water to store heat	6.5 a-b	3 weeks	Force, Motion, Energy, and Matter
	6.5(b) Origin of water on Earth; importance of water to agriculture, power generation, public health; water quality, conservation	6.5 c-g (6.9 a-d)		Earth and Space Systems
Weather	6.6 Air composition, weather factors, layers of the atmosphere; changes in the atmosphere; atmospheric pressure and weather conditions; weather map information; air quality	6.6 a (6.9 a-d)	4 weeks	Force, Motion, Energy, and Matter
		6.6 b-g		Earth and Space Systems
Watershed Systems	6.7 Ecosystem health; abiotic factors; location, structure of Virginia's watersheds; divides, tributaries, river systems, wetlands, estuaries, conservation, health, safety issues related to watersheds; water monitoring	6.7 a-g (6.9 a-d)	4 weeks	Ecosystems
The Solar System	6.8(a) Sun, moon, Earth, other planets and their moons, meteors, asteroids, comets, relative positions of planets; gravity, space exploration	6.8 a-i	4 weeks	Earth and Space Systems

Note: This blueprint will be implemented in Spring 2008. Standard 6.9 is a comprehensive standard and should be infused throughout instruction on Energy Sources, Origins, Transformations, and Uses; Earth's Waters; Air Quality as a part of weather studies; and Watershed Systems Analysis but will fall into the state testing category "Earth and Space Systems."