

Earth Science Pacing Guide

SOL #	NW1 - Topic/Unit	Suggested Time Frame
*ES.1a-f	Unit 1: Scientific and Engineering Practices (lab safety, measurement, scientific investigation, experimental procedure, data collection, graphing, should be incorporated throughout the entire school year.)	5 days review and incorporate throughout school year
ES.1e	Unit 2: Mapping Earth's Surface (longitude/latitude, topographic maps)	10 days
ES.4	Unit 3: Minerals (properties and uses)	5 days
ES.5a,b	Unit 4: Rocks (igneous, sedimentary, metamorphic, rock cycle)	10 days
ES.6, ES.7d	Unit 5: Natural Resources (geographic regions of Virginia, renewable and nonrenewable energy sources, Virginia resources)	5 days
ES.7a-c, ES.5c	Unit 6: Plate Tectonics (Earth's layers, heat transfer through Earth's interior, plate boundaries, continental drift, seafloor spreading, landforms)	10 days
SOL #	NW 2 - Topic/Unit	Suggested Time Frame
*ES.1a-f	Unit 1: Scientific and Engineering Practices	Embedded all year
ES.7b	Unit 7: Earthquakes and Volcanoes (plate boundaries, faults, seismic waves, tsunamis, types of volcanoes, parts of a volcano)	10 days
ES.8a, ES.5d	Unit 8: Weathering & Soil Formation (types of weathering, Karst topography, formation and components of soil, water erosion & deposition including stream development)	15 days
ES.8b-d, ES.10e	Unit 9: Freshwater Resources (surface water, groundwater zones, water quality, watersheds, Chesapeake Bay)	10 days
ES.10	Unit 10: Oceanography (ocean water chemistry, ocean motions, ocean zones, ocean floor features)	10 days
SOL #	NW3 - Topic/Unit	Suggested Time Frame
*ES.1a-f	Unit 1 Scientific and Engineering Practices	Embedded all year
ES.9	Unit 11: Geologic Time (fossils, absolute and relative dating, Virginia fossils)	9 days

ES.11, ES.12, ES.10c	Unit 12: Atmosphere, Weather & Climate (layers and composition of atmosphere, weather instruments, wind, weather phenomena, weather maps, climate zones, climate changes)	26 days
ES.3	Unit 13: Earth, Moon & Sun (characteristics of Earth that support life, seasons, tides, eclipses, moon phases)	10 days
SOL #	NW 4-Topic/Unit	Suggested Time Frame
*ES.1a-f	Unit 1: Scientific and Engineering Practices	Embedded all year
ES.2c,d	Unit 14: The Solar System (space history, characteristics of sun, planets and their moons, comets, meteors, asteroids, dwarf planets)	15 days
ES.2a,b	Unit 15: Stars, Galaxies, & the Universe (characteristics of stars, life cycle of stars, galaxies, solar nebula theory, big bang theory)	20 days
Review & Assessment	Earth Science SOLs & All Skills Listed Above	10 days