

Subject: Science		Greenville City Schools Curriculum Map									Grade Level:	
Strands	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May		
Science Inquiry												
Life Science	<p>Environment *Biomes-Different types *Ecosystems *Human Action/ Natural Phenomena-Consequences and Effects on the environment (*1)(BM 5.5.2)Determine that adaptations help organisms to survive in their environments)</p> <p>Plants *Classify w/ Characteristics *Reproduction *Adaptations *Life Cycle *Food Production *Plant Parts-Structure and Function (*2) (BM 5.3.2, Recognize the function of specific structures in organisms that allow them to obtain and use energy. 2.B.3, 3.B.3, 4.B.3</p> <p>Biological Change *Fossils-Evidence of Past 4.B.3</p> <p>Cell Structure *Plant and Animal-Compare/Contrast Draw/Label Cell Structure *Differentiate among cells, tissues, organs, systems 2.B.3</p>											

<p>Earth/Space Science</p>			<p><u>Earth and the Universe</u> *Characteristics of Planets- Compare/Contrast *Man-made Satellites *Moon Phases *Rotation vs. Revolution *Stars, Meteoroids, Comets, and Asteroids 5B3 *<i>Science Inquiry</i> <i>Questions the work of Galeio & early astronomers</i> <i>Reviewing the work of early rocket scientist, particulailly those American scientists, including Robert Goddard, and German scientist, Von Braun</i></p>	<p><u>Atmospheric Cycles</u> *Analyze Data of Atmospheric Conditions (Air Pressure, Temp., Wind Speed, Precip.) *Effects of Landforms on Weather and Climate *Components and Processes of Water Cycle *Temperatures Affects Evaporation, Condensation, and Precipitation 6B3</p>		<p><u>Earth Features</u> *Forces Changing Geological Features (ie wind, water, plate tectonics) *Layers of the Earth-Model *<i>Cave Formations and Relationship to Plate Tectonics</i> 7.B3—8B3</p>				
<p>Physical Science</p>					<p><u>Matter</u> *Law of Conservation *Label Atom *Atoms in Constant Motion *Evaporation and Condensation-Temp. Change *Different rates of Freeze, Melt, Evaporate for Different Types of Matter *Conditions Associated with Chemical Change Chemical vs. Physical Change 10.B3 *<i>Science Inquiry</i> <i>Using pipets, balances, graduate cylinders for accurate measurement in chemical experiments. Use units of ml, gram and centimeter in writing of lab experiments, utilizing scientific method lab reporting sheets. Draw pictures or illustrations representing experiments and data collection procedures Utilize collected numerical data to draw conclusions from completed experiments.</i></p>	<p><u>Forces and Motion</u> *Gravity's Effect on Earth's Objects *Relationship of Mass, Force and Distance Traveled *<i>Slope Affect on Amount of Force</i> *Simple Machines: Energy, Productivity, Alter Force, Use of *Scientific Meaning of Work *Friction and Motion 9B3 *<i>Science Inquiry</i> <i>Exploring Thomas Edison's Experiments</i> <i>Work with spring scales to measure force and effort.</i> <i>Write directions for completing a device utilizing lego blocks as building materials. Draw pictures of completed machines and illustrate how they employ simple machines.</i></p>	<p><u>Energy</u> *Energy Changing Forms Alternative Energy Uses and Conservation Best Practices. Current Energy Practices and Potential Affects of Continued Use of Non-renewable Energy Resources. *Potential vs. Kinetic Energy *Lenses Affect on Beams of Light *Construct/Explain Parallel Circuit *Series vs. Parallel Circuit *Use of Electrical Circuit *Explore/Describe Use of Magnets *Demonstrate/Describe Magnetic Field 11B3</p>			
<p>Personal/Social Perspectives</p>									<p>*Parts and Function of Nervous System *Parts of Function of Endocrine System *Human's Specialized System</p>	

									*Family Life Strand (Health Dept.) *DARE-Drug Abuse Education	
Science & Technology										
Related Literature	<i>*Video Instruction: EyeWitness, Desert, Ocean, Jungle, Windows on Science: Vol. 1, Know Your Niche, Biomes, Ecosystems</i>							To Space and Back		
Field Studies	Scientific process Recycling (all year)	Great Smoky Mountain National Park	Bays Mt. Planetarium Telescope viewing at school and at Bay's Mountain			Huntsville Space Center for Astrotrek Space Camp Field trip to ETSU Powell Observatory To view planets and moon in winter months	Arbor Day Health Dept. - Puberty Science Fair in school and local exhibit	Landfill, Recycling Center, Water Treatment Plant, Waste Treatment Plant Earth Day (Science Fair participation at ETSU)	Cedar Creek Leaning Center - 1 week	
Technology	Windows on Science (all year) Overhead projector VCR DVD Computer Internet Computer Power Point	Windows on Science (laser disk) Microscopes Flex Cam DVD Overhead Projector VCR/TV	Windows on Science (Laser Disk) Telescope Overhead projector	Windows on Science Triple Beam Balance Graduate Cylinders Magnetic Stirrers Chemical titration apparatus		Windows on Science Telescopes DVD VCR/TV Overhead Projector	Windows on Science DVD VCR/TV	Windows on Science DVD VCR/TV	Windows on Science DVD VCR/TV	

<p style="text-align: center;">Assessment</p>	<p>Student profiles of individually assigned major biome Power Point from internet investigations. Presentations Time lines in tree growth rings Write a description of the Rain Forest Biome. * (see pg 110 of SRA Using Science Skills Handbook) Learning Logs, pg 96 (same as above *) Write a compare & contrast paper, using double bubble Thinking Map or Venn diagram(see pg 21, Practicing Skill 11 Workbook for Venn Diagram)</p>	<p>Time lines in tree growth rings Microscope investigations of stoma. Leaf collections Tardigrade microscope investigations.</p>	<p>Constellation can Planetariums Internet research – Constellation Color and composition Directions with compasses. (N, S, E, W) Completion of compass course Making constellation finders Write and outline and paper on the Astronomy of Ancient Peoples(see pg 102, SRA Skills Handbook) Organized with organized with a Bubble thinking map for adjectives. Investigate different calendars, Roman, Mayan, Egyptian, Chinese, Muslim, Hindu, etc.</p>	<p>Analysis for Vitamin C with starch solutions (color change indicators of chemical reactions) Acid/Base Indicators with Color Change from Cabbage juice indicators and relation of interpreting data collected about the survey of acids/bases as chemicals in each students home. Phenolphthalein titration's of acid/base solutions to normal (ph7) Periodic Table Evaluation of the Elements Family Characteristics Electron Shell Drawing States of matter (solid, liquid, gas) Write about polyvinyl alcohol experiment and slime resulting from this experiment. Gas characteristics (non-flammable, flammable, explosive)</p>	<p>Internet investigations of INS activities and locations. Research Space Satellites and Probes, currently occurring and past astronomical investigations. Construction of class rockets for firing and viewing of school population.</p>	<p>Calculation of work in joules on multiple surfaces. Calculation of mechanical advantage with simple machines Mechanical advantage of Class 1, 2, & 3 Levers</p>	<p>Turning newspaper into cardboard. Wind and solar energy as alternatives. Writing summaries on Saving the Sun's Heat (see pg 106 of SRA Skills Handbook.)</p>	<p>Stalagmites and stalactites formation. Soil conservation practices. Write about the process of obtaining clean water and sewage treatment process.(see page 120 of SRA Skills Handbook.) Write about "Solution to Pollution" as presented in SRA Skills Handbook, pg 124.</p>
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