

# Correlation of the **STC PROGRAM™** and **GEMS®** with

## Georgia Performance Standards



## Grade 6 / Science

Carolina Biological Supply Company

2700 York Road • Burlington NC 27215

800.227.1150 • [www.carolinacurriculum.com](http://www.carolinacurriculum.com)

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**CAROLINA**  
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## Correlation of the STC PROGRAM™ and Great Explorations in Math and Science® With Georgia Performance Standards

The following STC PROGRAM™ and GEMS® Units are recommended based on the Georgia Performance Standards. Provided for each grade level, are the units that most strongly align with the content objectives. Other STC PROGRAM™ and GEMS® Units may also match objectives within each grade level.

<b>GRADE</b>	<b>STC PROGRAM™</b>	<b>GEMS®</b>
Kindergarten	<ul style="list-style-type: none"> <li>•Comparing and Measuring</li> <li>•Solids and Liquids</li> </ul>	<ul style="list-style-type: none"> <li>•Eggs, Eggs, Everywhere</li> <li>•Sifting Through Science</li> </ul>
1 <sup>st</sup> Grade	<ul style="list-style-type: none"> <li>•Organisms</li> <li>•Weather</li> </ul>	<ul style="list-style-type: none"> <li>•Ant Homes Under the Ground</li> <li>•Penguins and Their Young</li> </ul>
2 <sup>nd</sup> Grade	<ul style="list-style-type: none"> <li>•Changes</li> <li>•Plant Growth and Development</li> <li>•The Life Cycle of Butterflies</li> </ul>	<ul style="list-style-type: none"> <li>•Buzzing a Hive</li> <li>•Involving Dissolving</li> </ul>
3 <sup>rd</sup> Grade	<ul style="list-style-type: none"> <li>•Animal Studies</li> <li>•Rocks and Minerals</li> <li>•Soils</li> </ul>	<ul style="list-style-type: none"> <li>•On Sandy Shores</li> <li>•Terrarium Habitats</li> </ul>
4 <sup>th</sup> Grade	<ul style="list-style-type: none"> <li>•Ecosystems</li> <li>•Motion and Design</li> <li>•Sound</li> </ul>	<ul style="list-style-type: none"> <li>•Aquatic Habitats</li> <li>•Bubble Festival</li> <li>•Space Science Sequence</li> </ul>
5 <sup>th</sup> Grade	<ul style="list-style-type: none"> <li>•Floating and Sinking</li> <li>•Land and Water</li> <li>•Magnets and Motors</li> <li>•Microworlds</li> </ul>	<ul style="list-style-type: none"> <li>• Microscopic Explorations</li> </ul>
6 <sup>th</sup> Grade	<ul style="list-style-type: none"> <li>• Catastrophic Events</li> <li>• Earth in Space</li> </ul>	<ul style="list-style-type: none"> <li>• Earth, Moon, and Stars</li> <li>• Ocean Currents</li> <li>• Plate Tectonics</li> </ul>
7 <sup>th</sup> Grade	<ul style="list-style-type: none"> <li>• Human Body Systems</li> <li>• Organisms–From Macro to Micro</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Detectives</li> </ul>
8 <sup>th</sup> Grade	<ul style="list-style-type: none"> <li>• Energy, Machines, and Motion</li> <li>• Properties of Matter</li> </ul>	<ul style="list-style-type: none"> <li>• Color Analyzers</li> <li>• Crime Lab Chemistry</li> <li>• Invisible Universe</li> </ul>





<p><b>S6CS3.</b> S6CS3.a.</p>	<p><b>Habits of Mind</b> Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.</p>	<p><b>TG:</b> Act01-7 (pp9-140) <b>Plate Tectonics</b> <b>TG:</b> Ses01-8 (pp21-129)</p> <p><b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L03 (pp26-41), L06 (pp68-79), L08 (pp96-101) L17 (pp194-197) <b>TG:</b> L01.Exts (pp10-11), L03 (pp27-44) L06 (pp69-82), L08 (pp103-126) L14.Exts (pp193-194), L17 (pp233-256) L19.Exts (pp274-275), L24.Exts (pp337-338) <b>Earth In Space</b> <b>SG:</b> L03 (pp22-41), L06-L09 (pp74-127) L11 (pp146-159), L14 (pp200-215) L16-17 (pp244-289). L22 (pp340-343) <b>TG:</b> L03 (pp21-36), L06-L09 (pp73-146) L11 (pp159-180), L14 (pp209-220) L16-17 (pp245-276), L22 (pp311-326) <b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act01-6 (pp3-52) <b>Plate Tectonics</b> <b>TG:</b> Ses01-3 (pp21-55), Ses06 (pp79-91)</p>
<p>S6CS3.d.</p>	<p>Draw conclusions based on analyzed data.</p>	<p><b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L04 (pp42-53), L08 (pp96-101) <b>TG:</b> L04 (pp45-56), L06 (pp69-82), L08 (pp103-126) <b>Earth In Space</b> <b>SG:</b> L09 (pp122-1276), L14 (pp200-215) L16 (pp244-265), L22 (pp340-343) <b>TG:</b> L04 (pp37-52), <b>TG:</b> L09 (pp121-146) L14 (pp209-220), L16 (pp245-268), L22 (pp311-326)</p>
<p><b>S6CS4.</b> S6CS4.a.</p>	<p><b>Habits of Mind</b> Use appropriate technology to store and retrieve scientific information in topical, alphabetical, numerical, and keyword files, and create simple files.</p>	<p><b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L16 (pp190-193) <b>TG:</b> L04.Exts (p54), L09.Exts (p132), L13.Exts (p182) L14.Exts (pp193-194), L16 (pp219-232) L18.Exts (pp262-263), L19.Exts (pp274-275) L21.Exts (p299) <b>Earth In Space SG:</b></p>





S6CS6.b.	Understand and describe how writing for scientific purposes is different from writing for literary purposes.	<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L22 (pp340-343) <b>TG:</b> L02.Exts (pp18-19), L19.Exts (p292) L22 (pp311-326) <b>GEMS®</b> <b>Plate Tectonics</b> <b>TG:</b> Ses08 (pp113-129)
S6CS6.c	Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.	<b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L01-L06 (pp2-79), L08 (pp96-101) L11 (pp120-133) , L17 (pp194-197) <b>TG:</b> L01-L06 (pp3-82), L08 (pp103-126) L11 (pp149-162), L13.Exts (p182), L14.Exts (pp193-194), L16.Exts (p225) L17 (pp233-256), L20.Exts (p287), L22.Exts (p312) L24.Exts (pp337-338) <b>Earth In Space</b> <b>SG:</b> L03-L14 (pp22-215), L16 (pp244-265) L17 (pp268-289), L22 (pp340-343) <b>TG:</b> L01.Exts (p10), L03-L164 (pp21-220) L16 (pp245-268), L17 (pp269-276), L22 (pp311-326)
<b>S6CS7.</b>  S6CS7.b.	<b>Habits of Mind:</b> Recognize that there may be more than one way to interpret a given set of findings.	<b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L03 (pp26-41), L06 (pp68-79), L08 (pp96-101) L17 (pp194-197) <b>TG:</b> L01.Exts (pp10-11), 6L03 (pp27-44) L06 (pp69-82), L08 (pp103-126), L17 (pp233-256) <b>Earth In Space</b> <b>SG:</b> L03 (pp22-41), L07-L09 (pp88-127) L14 (pp200-215), L16 (pp244-265), L22 (pp340-343) <b>TG:</b> L03 (pp21-36), L07-9 (pp83-146) L14 (pp209-220), L16 (pp245-268), L22 (pp311-326) <b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act01-6 (pp3-52) <b>Plate Tectonics</b> <b>TG:</b> Ses01-3 (pp21-55), Ses06 (pp79-91)

<p><b>S6CS8.</b> S6CS8.c.</p>	<p><b>The Nature of Science</b> As prevailing theories are challenged by new information, scientific knowledge may change and grow.</p>	<p><b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L14 (pp164-169), L18 (pp200-209) L21 (pp232-239) <b>TG:</b> L14 (pp187-196), L18 (pp257-264) L21 (pp293-302) <b>Earth In Space</b> <b>SG:</b> L10 (pp130-145), L20-L21 (pp324-339) <b>TG:</b> L04 (pp37-52), L10 (pp147-158), L20-L21 (pp293-310) <b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act01 (pp3-8)</p>
<p><b>S6CS9.</b> S6CS9.a.</p>	<p><b>The Nature of Science</b> Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.</p>	<p><b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L02-4 (pp12-53), L11 (pp120-133) L16 (pp190-193), L17 (pp194-197) <b>TG:</b> L02 (pp17-26), L03 (pp27-44), L04 (pp45-56) L11 (pp149-162), L16 (pp219-232), L17 (pp233-256) L18.Exts (pp262-263), L19.Exts (pp274-275) L20.Exts (p287), L22.Exts (p312) L24.Exts (pp337-338) <b>Earth In Space</b> <b>SG:</b> L02-L09 (pp12-127), L11-L18 (pp146-311) L20 (pp324-333), L22 (pp340-343) <b>TG:</b> L01-L20 (pp3-308), L22 (pp311-326) <b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act01-6 (pp3-52) <b>Plate Tectonics</b> <b>TG:</b> Ses01-8 (pp21-129)</p>
<p>S6CS9.b.</p>	<p>Scientists often collaborate to design research. To prevent bias, scientists conduct independent studies of the same questions.</p>	<p><b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L09 (pp102-112) <b>TG:</b> L06.Exts (pp77-78), L09 (pp127-142), L13.Exts (p182), L14.Exts (pp193-194) L18.Exts (pp262-263), L23.Exts (pp325-326) <b>Earth In Space</b></p>



<p>S6CS10.c.</p>	<p>Building vocabulary knowledge: Demonstrate an understanding of contextual vocabulary in various subjects; Use content vocabulary in writing and speaking; Explore understanding of new words found in subject area texts.</p>	<p><b>STC®</b>  <b>Catastrophic Events</b>  <b>SG:</b> G - (pp283-287), L05 (pp54-67), L09 (pp102-112) L16 (pp190-193), L19 (pp210-223), L20 (pp224-231) L23 (pp252-263)  <b>TG:</b> L05 (pp57-68), L09 (pp127-142), L16 (pp219-232) L19-L20 (pp265-292), L23 (pp217-328)  <b>Earth In Space</b>  <b>SG:</b> G - (pp345-350)  <b>TG:</b> L12.Exts (pp192-193)  <b>GEMS®</b>  <b>Earth, Moon, and Stars</b>  <b>TG:</b> Act01-6 (pp3-52)  <b>Ocean Currents</b>  <b>TG:</b> Act01-7 (pp9-140)  <b>Plate Tectonics</b>  <b>TG:</b> Ses01-8 (pp21-129)</p>
<p>S6CS10.d.</p>	<p>Establishing context: Explore life experiences related to subject area content; Discuss in both writing and speaking how certain words are subject area related; Determine strategies for finding content and contextual meaning for unknown words.</p>	<p><b>STC®</b>  <b>Catastrophic Events</b>  <b>SG:</b> G - (pp283-287), L05 (pp54-67), L09 (pp102-112) L16 (pp190-193)  <b>TG:</b> L05 (pp57-68), L16 (pp219-232)  <b>Earth In Space</b>  <b>TG:</b> L12.Exts (pp192-193)  <b>GEMS®</b>  <b>Earth, Moon, and Stars</b>  <b>TG:</b> Act01-6 (pp3-52)  <b>Plate Tectonics</b>  <b>TG:</b> Ses01-8 (pp21-129)</p>
<p><b>S6E1.</b>  S6E1.a.    S6E1.b.</p>	<p><b>Earth Science</b>  Relate the Nature of Science to the progression of basic historical scientific theories (geocentric and heliocentric) as they describe our solar system, and the Big Bang as it describes the formation of the universe.    Describe the position of the solar system in the Milky Way galaxy and the universe.</p>	<p><b>STC®</b>  <b>Earth In Space</b>  <b>TG:</b> L01 (pp3-10)  <b>GEMS®</b>  <b>Plate Tectonics</b>  <b>TG:</b> Ses08 (pp113-129)    <b>STC®</b>  <b>Earth In Space</b>  <b>SG:</b> L02-3 (pp12-41), L06 (pp74-87)  <b>TG:</b> L02-L03 (pp11-36), L06 (pp73-82)</p>

S6E1.c.	Compare and contrast the planets in terms of: Size relative to the earth; Surface and atmospheric features; Relative distance from the sun; Ability to support life.	<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L10 (pp130-145), L11 (pp146-159) <b>Earth In Space</b> <b>SG:</b> L13 -16(pp174-265)
S6E1.d.	Explain the motion of objects in the day/night sky in terms of relative position.	<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L03-L04 (pp22-61) <b>TG:</b> L01.Exts (p10), L03-L04 (pp21-52),L05.Exts (p64) L13.Exts (p206)
S6E1.e.	Explain that gravity is the force that governs the motion in the solar system.	<b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act05-6 (pp33-52)
S6E1.f.	Describe the characteristics of comets, asteroids, and meteors.	<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L14-L16 (pp200-265) <b>TG:</b> L14-L16 (pp209-268)
<b>S6E2.</b>		<b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act02 (pp9-16)
S6E2.a.	<b>Earth Science</b> Demonstrate the phases of the moon by showing the alignment of the earth, moon, and sun.	<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L12 (pp160-173), L17 (pp268-289) <b>TG:</b> L11 (pp159-180), L12 (pp181-196) L13 (pp197-208), L17 (pp269-276)
		<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L02 (pp12-21), L05-L06 (pp62-87) L16 (pp244-265) <b>TG:</b> L02 (pp11-20), L05-6 (pp53-82), L16 (pp245-268)
		<b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act03-4 (pp17-32)

S6E2.b.	Explain the alignment of the earth, moon, and sun during solar and lunar eclipses.	<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L06-L07 (pp74-101) <b>TG:</b> L06-L07 (pp73-96) <b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act04 (pp25-32)
S6E2.c.	Relate the tilt of the earth to the distribution of sunlight throughout the year and to its effect on climate.	<b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L03 (pp26-41), L07 (pp80-95) <b>TG:</b> L01.Exts (pp10-11), L03 (pp27-44) L07 (pp83-102) <b>Earth In Space</b> <b>SG:</b> L02-4 (pp12-61), L06 (pp74-87), L08 (pp102-121) <b>TG:</b> L02-4 (pp11-52), L06 (pp73-82), L08 (pp97-120) <b>GEMS®</b> <b>Earth, Moon, and Stars</b> <b>TG:</b> Act05-6 (pp33-52)
<b>S6E3.</b>		
S6E3.b.	<b>Earth Science</b> Relate various atmospheric conditions to stages of the water cycle.	<b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L06 (pp68-79) <b>TG:</b> L06 (pp69-82)
S6E3.c.	Describe the composition, location, and subsurface topography of the world's oceans.	<b>STC®</b> <b>Catastrophic Events</b> <b>TG:</b> L14.Exts (pp193-194) <b>GEMS®</b> <b>Ocean Currents</b> <b>TG:</b> Act01-5 (pp9-93)
S6E3.d.	Explain the causes of waves, currents, and tides.	<b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L07 (pp80-95) <b>TG:</b> L07 (pp83-102) <b>Earth In Space</b> <b>SG:</b> L16 (pp244-265) <b>TG:</b> L16 (pp245-268) <b>GEMS®</b>

<p><b>S6E4.</b></p> <p>S6E4.a.</p> <p>S6E4.b.</p> <p>S6E4.c.</p> <p><b>S6E5.</b></p> <p>S6E5.a.</p> <p>S6E5.b.</p>	<p><b>Earth Science</b> Demonstrate that land and water absorb and lose heat at different rates and explain the resulting effects on weather patterns.</p> <p>Relate unequal heating of land and water surfaces to form large global wind systems and weather events such as tornados and thunderstorms</p> <p>Relate how moisture evaporating from the oceans affects the weather patterns and the weather events such as hurricanes.</p> <p><b>Earth Science</b> Compare and contrast the Earth's crust, mantle, and core including temperature, density, and composition.</p> <p>Investigate the composition of rocks in terms of minerals.</p>	<p><b>Ocean Currents</b> TG: Act02-7 (pp29-140)</p> <p><b>STC®</b> <b>Catastrophic Events</b> SG: L02-L03 (pp12-41), L05-7 (pp54-95) TG: L02-L03 (pp17-44), L05-7 (pp57-102) <b>Earth In Space</b> SG: L07-L09 (pp88-127) TG: L07-L09 (pp83-146)</p> <p><b>STC®</b> <b>Catastrophic Events</b> SG: L02-L07 (pp12-95) TG: L02-L03 (pp17-44), L05-L07 (pp57-102)</p> <p><b>STC®</b> <b>Catastrophic Events</b> SG: L02 (pp12-25), L03 (pp26-41), L05-L07 (pp54-95) TG: L02-L03 (pp17-44), L05-L07 (pp57-102)</p> <p><b>STC®</b> <b>Catastrophic Events</b> SG: L14-L16 (pp164-193) TG: L14-L16 (pp187-232) <b>GEMS®</b> <b>Plate Tectonics</b> TG: Ses03 (pp43-55)</p> <p><b>STC®</b> <b>Catastrophic Events</b> SG: L22 (pp240-251), TG: L22 (pp303-316), L23.Exts (pp325-326) <b>Earth In Space</b> TG: L12.Exts (pp192-193), L18.Exts (pp285-286)</p>
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S6E5.c.	Describe processes that change rocks and the surface of the earth.	<p><b>STC®</b>  <b>Catastrophic Events</b>  <b>SG:</b> L09 (pp102-112), L21 (pp232-239)  L22 (pp240-251), L24 (pp264-273)  <b>TG:</b> L09 (pp127-142), L19.Exts (pp274-275)  L21 (pp293-302), L22 (pp303-316), L24 (pp329-346)  <b>Earth In Space</b>  <b>SG:</b> L13 (pp174-199)  <b>TG:</b> L13 (pp197-208)</p> <p><b>GEMS®</b>  <b>Plate Tectonics</b>  <b>TG:</b> Ses07 (pp93-111)</p>
S6E5.d.	Recognize that lithospheric plates constantly move and cause major geological events on the earth's surface	<p><b>STC®</b>  <b>Catastrophic Events</b>  <b>SG:</b> L10 (pp114-119, L13-L17 (pp154-197)  <b>TG:</b> L10 (pp143-148), L13-L17 (pp177-256)  <b>Earth In Space</b>  <b>SG:</b> L13 (pp174-199),  <b>TG:</b> L13 (pp197-208)</p> <p><b>GEMS®</b>  <b>Plate Tectonics</b>  <b>TG:</b> Ses01-3 (pp21-55), Ses08 (pp113-129)</p>
S6E5.e.	Explain the effects of physical processes (plate tectonics, erosion, deposition, volcanic eruption, gravity) on geological features including oceans (composition, currents, and tides).	<p><b>STC®</b>  <b>Catastrophic Events</b>  <b>SG:</b> L10 (pp114-119), L13-L17 (pp154-197)  L19 (pp210-223), L23-25 (pp252-282)  <b>TG:</b> L10 (pp143-148), L13-L19 (pp177-278)  L23-25 (pp217-372)  <b>Earth In Space</b>  <b>SG:</b> L13 (pp174-199), L19 (pp312-323)  <b>TG:</b> L12 (pp181-196), L13 (pp197-208)  L19 (pp287-292)</p> <p><b>GEMS®</b>  <b>Ocean Currents</b>  <b>TG:</b> Act01 (pp9-28), Act03-5 (pp47-93)  <b>Plate Tectonics</b>  <b>TG:</b> Ses01-5 (pp21-77), Ses08 (pp113-129)</p>

S6E5.f.	Describe how fossils show evidence of the changing surface and climate of the Earth.	<b>STC®</b> <b>Earth In Space</b> <b>SG:</b> L18 (pp290-311) <b>TG:</b> L18 (pp277-286)
S6E5.h.	Explain the effects of human activity on the erosion of the earth's surface.	<b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L24 (pp264-273) <b>TG:</b> L24 (pp329-346)
<b>S6E6.</b>		<b>GEMS®</b> <b>Ocean Currents</b> <b>TG:</b> Act01 (pp9-28)
S6E6.a.	<b>Earth Science</b> Explain the role of the sun as the major source of energy and the sun's relationship to wind and water energy.	<b>STC®</b> <b>Catastrophic Events</b> <b>SG:</b> L02 (pp12-25), L05 (pp54-67), L07 (pp80-95) <b>TG:</b> L02 (pp17-26), L05 (pp57-68), L07 (pp83-102) <b>Earth In Space</b> <b>SG:</b> L02 (pp12-21), L07 (pp88-101), L08 (pp102-121) <b>TG:</b> L02 (pp11-20), L03.Exts (p33) L04.Exts (pp45-46), L06.Exts (p81) L07-9 (pp83-146), L11 (pp159-180)