

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

Georgia Performance Standards



**Grade 4
Course 41.01500 / Science**

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CAROLINA
World-Class Support for Science & Math

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.

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

<p>S4CS1.c.</p>	<p>Offer reasons for findings and consider reasons suggested by others.</p>	<p>STC® Ecosystems TG: L13 (pp125-132) Motion and Design TG: L03-L08 (pp25-80) Sound TG: L01-L14 (pp11-102) GEMS® Aquatic Habitats TG: Act01-5 (pp13-70), Exts (pp70-78) Bubble Festival TG: Act01-12 (pp54-124)</p>
<p>S4CS1.d.</p>	<p>Take responsibility for understanding the importance of being safety conscious.</p>	<p>STC® Ecosystems RB: (pp43-44) TG: L06 (pp61-74), S-Sec3 (pp34-44), L02-L13 (pp151-24), L15 (pp139-144) L17 (pp153-156). S-Sec3 (pp8-11) Motion and Design TG: L02-L13 (pp151-24) L15 (pp139-144), L17 (pp153-156), S-Sec3 (pp8-11) Sound TG: S-Sec3 (pp9-12) GEMS® Aquatic Habitats TG: Act01-5 (pp13-70), Exts (pp70-78) Bubble Festival TG: Act01-12 (pp54-124)</p>
<p>S4CS3. S4CS3.b.</p>	<p>Habits of Mind Measure and mix dry and liquid materials in prescribed amounts, exercising reasonable safety.</p>	<p>STC® Ecosystems RB: (pp43-44) TG: L06 (pp61-74), S-Sec3 (pp34-44) Motion and Design TG: L02-L13 (pp15-124), L15 (pp139-144) L17 (pp153-156), S-Sec3 (pp8-11) Sound TG: S-Sec3 (pp9-12) GEMS® Aquatic Habitats TG: Act01 (pp13-23) Bubble Festival TG: Act01-12 (pp54-124)</p>

S4CS3.c.	Use computers, cameras, and recording devices for capturing information.	STC® Sound TG: L01-L14 (pp11-102) GEMS® Aquatic Habitats TG: Act01-5 (pp13-78), Exts (pp70-78) Bubble Festival TG: Act01-12 (pp54-124)
S4CS3.d.	Identify and practice accepted safety procedures in manipulating science materials and equipment.	STC® Ecosystems RB: (pp43-44) TG: L06 (pp61-74), S-Sec3 (pp34-44) Motion and Design TG: L02-L13 (pp15-124), L15 (pp139-144) L17 (pp153-156), S-Sec3 (pp8-11) Sound TG: S-Sec3 (pp9-12) GEMS® Aquatic Habitats TG: Act01 (pp13-23) Bubble Festival TG: Act01-4 (pp54-79), Act06-12 (pp86-124)
S4CS4.	Habits of Mind	STC®
S4CS4.a.	Observe and describe how parts influence one another in things with many parts.	Ecosystems TG: L02-L07 (pp13-82)
S4CS4.b.	Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.	STC® Ecosystems TG: L02-L12 (pp13-124), L14 (pp133-144) Motion and Design TG: L02 (pp15-24), L04 (pp35-46) L14-16 (pp125-152) Sound TG: L01.Exts (pp7-8), L03-L14 (pp23-98) L04.Exts (pp26-27), L17 (pp117-118) GEMS® Bubble Festival TG: Act03-4 (pp66-79)

S4CS4.c.	Identify patterns of change in things - such as steady, repetitive, or irregular change - using records, tables, or graphs of measurements where appropriate.	STC® Ecosystems TG: L02-L12 (pp13-124), L14 (pp133-144) Motion and Design TG: L04 (pp35-46), L07 (pp65-72) Sound TG: L04-L07 (pp28-118) GEMS® Bubble Festival TG: Act03 (pp66-73), Act05 (pp80-85)
S4CS5.	Habits of Mind	STC® Motion and Design TG: L15-L16 (pp139-152)
S4CS5.a.	Write instructions that others can follow in carrying out a scientific procedure.	
S4CS5.b.	Make sketches to aid in explaining scientific procedures or ideas.	STC® Ecosystems TG: L03.Exts (p29), L05.Exts (p57) L06.Exts (pp64-65), L12.Exts (p120) Motion and Design TG: L02 (pp15-24), L14-16 (pp125-152) Sound TG: L01.Exts (pp7-8), L11 (pp73-78) GEMS® Bubble Festival TG: Act04 (pp74-79)
S4CS5.c.	Use numerical data in describing and comparing objects and events.	STC® Ecosystems TG: L13 (pp125-132) Motion and Design TG: L04 (pp35-46), L05 (pp47-56) L07 (pp65-72), L10 (pp91-100), L12 (pp109-116) L15-16 (pp139-152) Sound TG: L01-L14 (pp11-102), L17 (pp117-118) GEMS® Aquatic Habitats TG: Act01-5 (pp13-70) Bubble Festival TG: Act01-12 (pp54-124)

S4CS5.d.	Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.	STC® Ecosystems TG: L03.Exts (p29), L05.Exts (p57), L09 (pp95-98) L16 (pp165-168) Sound TG: L04 (pp28-32), L08 (pp57-62), L14 (pp91-102)
S4CS6.	Habits of Mind	
S4CS6.a.	Support statements with facts found in books, articles, and databases, and identify the sources used.	STC® Ecosystems TG: L03.Exts (p29), L05.Exts (p57), L09 (pp95-98) L16 (pp165-168) Sound TG: L04 (pp28-32), L08 (pp57-62), L14 (pp91-102)
S4CS7.	The Nature of Science	
S4CS7.a.	Similar scientific investigations seldom produce exactly the same results, which may differ due to unexpected differences in whatever is being investigated, unrecognized differences in the methods or circumstances of the investigation, or observational uncertainties.	STC® Soils TG: L05 (pp39-48) Sound TG: L16 (pp113-116)
S4CS8.	The Nature of Science	
S4CS8.a.	Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.	STC® Ecosystems RB: (pp43-44) TG: L01-L17 (pp3-171) Motion and Design RB: (pp23-28) TG: L01 (pp1-14), L03-L15 (pp25-144) Sound TG: L01-L17 (pp11-118)
S4CS8.b.	Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.	GEMS® Aquatic Habitats TG: Act01-5 (pp13-70) Bubble Festival TG: Act01-12 (pp54-124) STC® Ecosystems RB: (pp07-37), (pp40-51), (pp54-61) TG: L02-L17 (pp13-171) Motion and Design TG: L01-L04 (pp1-46), L06-L17 (pp57-156) Sound TG: L01-L14 (pp11-102), L17 (pp117-118)

<p>S4E2.</p> <p>S4E2.a.</p> <p>S4E2.b.</p> <p>S4E2.c.</p> <p>S4E2.d.</p>	<p>Earth Science Explain the day/night cycle of the earth using a model.</p> <p>Explain the sequence of the phases of the moon.</p> <p>Demonstrate the revolution of the earth around the sun and the earth's tilt to explain the seasonal changes.</p> <p>Demonstrate the relative size and order from the sun of the planets in the solar system.</p>	<p>GEMS® Space Science Unit 3 (pp283-324)</p> <p>GEMS® Space Science Unit 4 (pp337-414)</p> <p>GEMS® Space Science Unit 3 (pp283-324)</p> <p>GEMS® Space Science Unit 1 (pp25-152)</p>
<p>S4E3.</p> <p>S4E3.b.</p> <p>S4E3.d.</p> <p>S4P1.</p> <p>S4P1.a.</p> <p>S4P2.</p> <p>S4P2.a.</p> <p>S4P2.b.</p>	<p>Earth Science Identify the temperatures at which water becomes a solid and at which water becomes a gas.</p> <p>Explain the water cycle (evaporation, condensation, and precipitation).</p> <p>Physical Science Identify materials that are transparent, opaque, and translucent.</p> <p>Investigate how sound is produced.</p> <p>Recognize the conditions that cause pitch to vary.</p>	<p>STC® Ecosystems TG: L11.Exts (p114)</p> <p>STC® Ecosystems KIDS DISCOVER-Ecology</p> <p>GEMS® Bubble Festival TG: Act05 (pp80-85), Act12 (pp119-124)</p> <p>STC® Sound TG: L01-L17 (pp11-118)</p> <p>STC® Sound TG: L03-L06 (pp23-48), L08.Exts (pp61-62) L09-L13 (pp63-90), L14.Exts (p98) L15-17(pp103-118)</p>

<p>S4P3. S4P3.a. S4P3.b. S4P3.c. S4P3.d.</p> <p>S4L1. S4L1.a. S4L1.b. S4L1.c.</p>	<p>Physical Science Identify simple machines and explain their uses (lever, pulley, wedge, inclined plane, screw, wheel and axle).</p> <p>Using different size objects, observe how force affects speed and motion.</p> <p>Explain what happens to the speed or direction of an object when a greater force than the initial one is applied.</p> <p>Demonstrate the effect of gravitational force on the motion of an object.</p> <p>Life Science Identify the roles of producers, consumers, and decomposers in a community.</p> <p>Demonstrate the flow of energy through a food web/food chain beginning with sunlight and including producers, consumers, and decomposers.</p> <p>Predict how changes in the environment would affect a community (ecosystem) of organisms.</p>	<p>STC® Motion and Design RB: (pp32-36)</p> <p>STC® Motion and Design TG: L03-L05 (pp25-56), L07-L13 (pp65-124) L08 (pp73-80), L15-L17 (pp139-156)</p> <p>STC® Motion and Design TG: L03-5 (pp25-56), L07-9 (pp65-90) L15-16p139-152)</p> <p>STC® Motion and Design TG: L03.Exts (pp29-30)</p> <p>STC® Ecosystems RB: (pp14-19) TG: L07 (pp75-82), L12.Exts (p120) KIDS DISCOVER-Ecology</p> <p>STC® Ecosystems RB: (pp14-16), TG: L07 (pp75-82), L12.Exts (p120) Ecology-KIDS DISCOVER Reader</p> <p>GEMS® Aquatic Habitats TG: Act04-5 (pp45-70)</p> <p>STC® Ecosystems RB: (pp20-23), (pp26-27) TG: L01-L07 (pp3-82), L12 (pp117-124) L17 (pp169-171) KIDS DISCOVER-Ecology</p>
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