

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

Georgia Performance Standards



**Grade 5
Course 41.01600 / Science**

Carolina Biological Supply Company
2700 York Road • Burlington NC 27215
800.227.1150 • www.carolinacurriculum.com

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

S5CS1.c.	Offer reasons for findings and consider reasons suggested by others.	GEMS® Microscopic Explorations TG: Act01-10 (pp37-97), Exts (p102) STC® Land and Water RB: (pp41-44) TG: L05-06 (pp51-74), L08 (pp85-98) L10-L17 (pp109-186) Magnets and Motors TG: L16 (pp99-102) GEMS® Microscopic Explorations TG: Act01-10 (pp37-97), Exts (p102)
S5CS1.d.	Take responsibility for understanding the importance of being safety conscious.	STC® Floating and Sinking TG: L01-L17 (pp3-136), S-Sec3 (pp10-15) Land and Water RB: (pp47-49) TG: L02 (pp11-28), L04 (pp37-50), L06 (pp63-74) L15 (pp163-172), S-Sec3 (pp13-18) Magnets and Motors TG: L02-L17 (pp11-108) Microworlds RB: (pp46-47) TG: L05-L06 (pp25-36), L11 (pp61-66) L15-L16 (pp79-86), S-Sec3 (pp11-24) GEMS® Microscopic Explorations TG: Act01-10 (pp37-97)
S5CS2.	Habits of Mind Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.	STC® Floating and Sinking RB: (pp07-10)
S5CS2.b.	Use fractions and decimals, and translate between decimals and commonly encountered fractions - halves, thirds, fourths, fifths, tenths, and hundredths (but not sixths, sevenths, and so on) - in scientific calculations.	STC® Floating and Sinking RB: (pp07-10)

S5CS2.c.	Judge whether measurements and computations of quantities, such as length, area, volume, weight, or time, are reasonable answers to scientific problems by comparing them to typical values.	STC® Floating and Sinking TG: L04-L05 (pp31-48), L09-12p69-102)
S5CS3.	Habits of Mind	STC® Floating and Sinking RB: (pp29-30), (pp34-35)
S5CS3.a.	Choose appropriate common materials for making simple mechanical constructions and repairing things.	GEMS® Microscopic Explorations TG: Act01-9 (pp37-91)
S5CS3.b.	Measure and mix dry and liquid materials in prescribed amounts, exercising reasonable safety.	STC® Floating and Sinking TG: L04-5 (pp31-48), L07-L12 (pp55-102) L14 (pp113-118), L15.Exts (p124), L16 (pp129-134) Land and Water TG: L02-L07 (pp11-84), L10-L13 (pp109-152) Magnets and Motors TG: L02-L17 (pp11-108) Microworlds TG: L05-7pp25-42), L11 (pp61-66), L15-16p79-86 S-Sec3 (pp11-24)
S5CS3.c.	Use computers, cameras, and recording devices for capturing information.	GEMS® Microscopic Explorations TG: Act01-10 (pp37-97)
S5CS3.d.	Identify and practice accepted safety procedures in manipulating science materials and equipment.	STC® Floating and Sinking TG: L01-L17 (pp3-136) Land and Water TG: L02 (pp11-28), L04 (pp37-50, L06 (pp63-74) L15 (pp163-172), S-Sec3 (pp13-18) Magnets and Motors TG: L02-L17 (pp11-108) Microworlds TG: L05-6pp25-36, L11 (pp61-66), L15-16p79-86 S-Sec3 (pp11-24)

<p>S5CS4. S5CS4.a.</p> <p>S5CS4.b.</p> <p>S5CS4.c.</p> <p>S5CS4.d.</p> <p>S5CS5. S5CS5.a.</p>	<p>Habits of Mind Observe and describe how parts influence one another in things with many parts.</p> <p>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.</p> <p>Identify patterns of change in things - such as steady, repetitive, or irregular change - using records, tables, or graphs of measurements where appropriate.</p> <p>Identify the biggest and the smallest possible values of something.</p> <p>Habits of Mind Write instructions that others can follow in carrying out a scientific procedure.</p>	<p>STC® Land and Water TG: L02-L03 (pp11-36), L08-12p85-142 L14-15p153-172</p> <p>STC® Floating and Sinking TG: L01-3pp3-30), L05-7pp39-60, L11-12p87-102 L14 (pp113-118), L16 (pp129-134) Land and Water TG: L01-L13 (pp3-152), L16 (pp173-182) L17 (pp182-186) Magnets and Motors RB: (pp09-11), (pp14-20), (pp23-25), (pp28-38) (pp41-50), (pp53-54), (pp58-61) TG: L06.Exts (p39), L09.Exts (p62), L11.Exts (p75) L13-L17 (pp83-108) Microworlds RB: (pp07-25), (pp28-43), (pp46-61) TG: App-A (pp89-92), L01-L17 (pp3-88)</p> <p>STC® Floating and Sinking TG: L01-L03 (pp3-30), L05 (pp39-48), L07 (pp55-60) L11-L12 (pp87-102), L14 (pp113-118) Magnets and Motors TG: L17 (pp103-108) Microworlds TG: L02 (pp9-14), L04 (pp21-24)</p> <p>STC® Floating and Sinking RB: (pp24-26) TG: L03 (pp21-30) Land and Water TG: L08 (pp85-98) Microworlds TG: L01-L7 (pp3-88)</p> <p>GEMS® Microscopic Explorations TG: Act01 (pp37-41)</p>
---	---	---

<p>S5CS5.b.</p>	<p>Make sketches to aid in explaining scientific procedures or ideas.</p>	<p>STC® Floating and Sinking TG: L01 (pp3-12), L06.Exts (p52), L07 (pp55-60) Land and Water TG: L09 (pp99-108), L16 (pp173-182) Magnets and Motors RB: (pp09-11), (pp14-20), (pp23-25), (pp28-38) (pp41-50), (pp53-54), (pp58-61) TG: L06.Exts (p39), L09.Exts (p62), L11.Exts (p75) TG: L13-L17 (pp83-108) Microworlds RB: (pp07-25), (pp28-43), (pp46-61) TG: App-A (pp89-92), L01-L17 (pp3-88)</p> <p>GEMS® Microscopic Explorations TG: Act01 (pp37-41)</p>
<p>S5CS5.c.</p>	<p>Use numerical data in describing and comparing objects and events.</p>	<p>STC® Floating and Sinking TG: L03 (pp21-30), L09-L14 (pp69-118) L16 (pp129-134) Land and Water TG: L06 (pp63-74), L08 (pp85-98), L10-12p109-142) L15-16p163-182)</p> <p>GEMS® Microscopic Explorations TG: Act01-10 (pp37-97), Exts (p102)</p>
<p>S5CS5.d.</p>	<p>Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.</p>	<p>STC® Land and Water TG: L02 (pp11-28), L06-L07(pp63-84), L12 (pp129-142) , L16 (pp173-182)</p>
<p>S5CS6. S5CS6.a.</p>	<p>Habits of Mind Support statements with facts found in books, articles, and databases, and identify the sources used.</p>	<p>STC® Land and Water TG: L02 (pp11-28), L06-L07 (pp63-84) L12 (pp129-142), L16 (pp173-182)</p>

<p>S5CS7.</p> <p>S5CS7.a.</p> <p>S5CS7.b.</p>	<p>The Nature of Science 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.</p> <p>Some scientific knowledge is very old and yet is still applicable today.</p>	<p>STC® Floating and Sinking TG: L05 (pp39-48)</p> <p>STC® Floating and Sinking TG: L09 (pp69-78), L10.Exts (p82), L12 -1495-118) L16 (pp129-134) Land and Water RB: (pp07-09) TG: L02-L03 (pp11-36), L09 (pp99-108) L13 (pp143-152), L17 (pp182-186)</p>
<p>S5CS8.</p> <p>S5CS8.a.</p> <p>S5CS8.b.</p> <p>S5CS8.d.</p>	<p>The Nature of Science 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.</p> <p>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.</p> <p>Science involves many different kinds of work and engages men and women of all ages and backgrounds.</p>	<p>STC® Floating and Sinking RB: (pp60-61) TG: L01-L17 (pp3-136) Land and Water TG: L01-L17 (pp3-186) Magnets and Motors RB: (pp14-16), (pp33-38) TG: L02-L17 (pp11-108) Microworlds RB: (pp23-25) TG: L01-L17 (pp3-88)</p> <p>GEMS® Microscopic Explorations TG: Act01-10 (pp37-97), Exts (p102)</p> <p>STC® Floating and Sinking TG: L01-L17 (pp3-136) Land and Water TG: L01-L05 (pp3-62), L08 (pp85-98) L10-L14 (pp109-162), L16-L17 (pp173-186) Microworlds TG: L01-L02 (pp3-14)</p> <p>STC® Floating and Sinking RB: (pp41-45)</p>

<p>S5E1. S5E1.a.</p> <p>S5E1.b.</p> <p>S5E1.c.</p>	<p>The Nature of Science Identify surface features caused by constructive processes (Deposition (deltas, sand dunes, etc.); Earthquakes; Volcanoes; Faults).</p> <p>Identify and find examples of surface features caused by destructive processes (Erosion (water - rivers and oceans, wind); Weathering; Impact of organisms; Earthquake; Volcano).</p> <p>Relate the role of technology and human intervention in the control of constructive and destructive processes. Examples include, but are not limited to: Seismological studies; Flood control (dams, levees, storm drain management, etc.); Beach reclamation (Georgia coastal islands).</p>	<p>STC® Land and Water RB: (pp10-1-14) TG: L03.Exts (p35), L04-7pp37-84), L09.Exts (p103) L10-13 (pp109-152)</p> <p>STC® Land and Water RB: (pp10-14), (pp36-38) TG: L03 (pp29-36), L05 (pp51-62), L07 (pp75-84) KIDS DISCOVER-Earth</p> <p>STC® Floating and Sinking RB: (pp24-26) Magnets and Motors RB: (pp47-50)</p>
<p>S5P1. S5P1.a.</p> <p>S5P1.b.</p> <p>S5P2. S5P2.a.</p> <p>S5P2.b.</p> <p>S5P3. S5P3.a.</p>	<p>Physical Science Demonstrate that the mass of an object is equal to the sum of its parts by manipulating and measuring different objects made of various parts.</p> <p>Investigate how common items have parts that are too small to be seen without magnification.</p> <p>Physical Science Investigate physical changes by separating mixtures and manipulating (cutting, tearing, folding) paper to demonstrate examples of physical change.</p> <p>Recognize that the changes in state of water (water vapor/steam, liquid, ice) are due to temperature differences and are examples of physical change.</p> <p>Physical Science Investigate static electricity.</p>	<p>STC® Floating and Sinking RB: (pp07-10) TG: L03-L06 (pp21-54), L09-L14 (pp69-118) L16 (pp129-134)</p> <p>GEMS® Microscopic Explorations TG: Act01-10 (pp37-97), Exts (p102)</p> <p>STC® Floating and Sinking TG: L06 (pp49-54) Microworlds TG: L09.Exts (p53)</p> <p>STC® Land and Water TG: L02.Exts (p19)</p> <p>STC® Magnets and Motors RB: (pp07-08)</p>

S5P3.b.	Determine the necessary components for completing an electric circuit.	STC® Magnets and Motors RB: (pp33-38), (pp58-59) TG: L07 (pp43-48), L17 (pp103-108)
S5P3.d.	Compare a bar magnet to an electromagnet.	STC® Magnets and Motors RB: (pp07-08), (pp14-16), (pp28-38), (pp60-61) TG: L02 (pp11-14), L03-L17 (pp15-108)
S5L3. S5L3.a.	Life Science Use magnifiers such as microscopes or hand lenses to observe cells and their structure.	STC® Land and Water TG: L05-L06 (pp51-74) Microworlds RB: (pp07-61), (pp10-12) TG: L03.Exts (p18), L05-L16 (pp25-86) KIDS DISCOVER-Microbes GEMS® Microscopic Explorations TG: Act01-10 (pp37-97), Exts (p102)
S5L3.b.	Identify parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus) and determine the function of the parts.	STC® Microworlds TG: L11-L16 (pp61-86)
S5L3.c.	Explain how cells in multi-celled organisms are similar and different in structure and function to single-celled organisms.	STC® Microworlds RB: (pp28-30) TG: L11-L16 (pp61-86) KIDS DISCOVER-Microbess
S5L4. S5L4.a.	Life Science Identify beneficial microorganisms and explain why they are beneficial.	STC® Microworlds RB: (pp07-25), (pp28-43), (pp46-61) TG: L09.Exts (p53), L12.Exts (pp69-70) L13.Exts (p74), L15-16p79-86 KIDS DISCOVER-Microbes GEMS® Microscopic Explorations TG: Act09-10 (pp87-91), Exts (p102)