

A Guide for Parents and Families About What Your **NINTH GRADER** Should Be Learning In School This Year



This guide shares important information about the South Carolina Academic Standards. These standards outline state requirements for your child's learning program and what students across the state should be able to do in certain subjects.

A good educational system provides many tools that help children learn. Academic standards are useful for making sure:

- teachers know what is to be taught;
- children know what is to be learned; and
- parents and the public can determine how well the concepts are being learned.

The following pages provide information about the South Carolina Academic Standards for mathematics, English language arts, science and social studies for **Ninth Grade**. The information can help you become familiar with what your child is learning at school and may include activities to reinforce and support your child's learning, selected book titles for additional reading, and Web site addresses for extended learning. Because sites change, please preview before students begin work. This version does not include every standard taught in **Ninth Grade**. The complete South Carolina Academic Standards for each subject area can be found at www.sctlc.com or at <http://ed.sc.gov>.

Sample assessment questions for the High School Assessment Program (HSAP) can be found at <http://www.ed.sc.gov/agency/offices/assessment/programs/HSAP>.

South Carolina Academic Standards

Here are seven key reasons parents should be in the know about the academic standards:

1. Standards set clear, high expectations for student achievement. Standards tell what students need to do in order to progress through school on grade level.
2. Standards guide efforts to measure student achievement. Results of tests (PACT) on grade-level academic standards and end-of-course examinations show if students have learned and teachers have taught for mastery.

3. Standards promote educational equity for all. Instruction in every school in the state will be based on the same academic standards.
4. Standards help parents determine if children in South Carolina are taught the same subject content as children across the nation. South Carolina Academic Standards have been compared with and matched to national standards as well as standards of other states to make sure that they are challenging.
5. Standards inform parents about the academic expectations for their child. Standards give parents more specific information for helping their child at home. Parents no longer have to guess the type of help their child needs to do better in school.
6. Standards enable parents to participate more actively in parent/teacher conferences. Knowledge of the academic standards helps parents understand more about what their child is learning and what they can do at each grade level. Parents are able to have conversations with teachers about student progress in specific areas and understand more completely the progress of their child.
7. Standards help parents see how the current grade level expectations are related to successive years' expectations. Parents are able to see how their child's knowledge is growing from one year to the next.

WEB RESOURCES

South Carolina Department of Education (SDE):
<http://ed.sc.gov/agency/offices/cso/>

South Carolina Education Oversight Committee (EOC):
<http://eoc.sc.gov>

South Carolina: Teaching, Learning, and Connecting (SCTL):
www.sctlc.com

South Carolina Education Television (SCETV):
www.knowitall.org

ENGLISH LANGUAGE ARTS

Students enrolled in grade nine are generally enrolled in **English 1**. Those students who took English 1 in the eighth grade may be enrolled in **English 2** in grade nine.

Students should be able to:

Reading

- Make inferences and draw conclusions by comparing and contrasting information in one or more texts
- Analyze the relationship among character, plot, and theme in stories
- Analyze the impact that figurative language, such as metaphor or narrative strategies, or such as point of view or foreshadowing, have on a text
- Write, act, and make presentations in response to what is read
- Understand that an author can reveal his/her preference on a subject by his/her word choice or by including or leaving out relevant information
- Understand how a variety of propaganda techniques are used in nonfiction texts
- Analyze the use of text structures and graphic features in nonfiction texts
- Read independently for various reasons
- Use context clues to determine the meaning of unfamiliar words or technical terms
- Understand word associations and subtle meanings in order to better understand the meaning of a text
- Analyze the meaning of words by using a knowledge of their Greek or Latin parts

Writing

- Organize writing by creating lists, discussing ideas, and by using graphic organizers, models, or outlines
- Use a variety of sentence types and lengths to make writing interesting
- Create multi-paragraph writing that has an introduction and conclusion, a clear main idea, and support for ideas such as definitions and descriptions
- Use correct grammar, punctuation, and spelling
- Use revision strategies to improve the organization, development, and voice in written pieces
- Create informative pieces, such as reports and letters that use appropriate descriptions and language for a particular audience
- Write essays, memoirs, or poems that tell a story and use descriptive language to create tone and mood
- Create persuasive pieces such as editorials, essays, speeches, or reports that support a clearly stated opinion with facts, statistics, or firsthand accounts

Research

- Use direct quotations, paraphrases, or summaries to incorporate information from multiple sources into written or oral presentations
- Use a standard method to document sources and properly credit the work of others
- Create written assignments and oral presentations that are designed for a specific audience and purpose

- Use a variety of print or electronic source materials and supporting graphics
- Design and carry out research projects

Sample Assessment Questions

Sample questions for the English Language Arts portion of the High School Assessment Program (HSAP) can be found at www.ed.sc.gov/agency/offices/assessment/programs/hsap/documents/elahsapform.

Activities

- Provide access to a library where your child can access books
- Encourage your child to write a script or create a video relating to a topic of interest, mirroring the theme of something he/she has read
- Discuss movies and television with your child by analyzing characters, plot, and themes
- When watching television or reading the newspaper together, identify opinions that are not supported
- Have your child compare the structure and graphics used in a variety of print materials, such as video game instructions and coffee table books
- Have your child use a graphic organizer to create a family tree
- Have your child identify the correct order of the paragraphs from a cut-up article or essay based on content and logical sequence
- Have your child look up and use statistics or facts to support his/her opinions
- Keep a collection of magazine advertisements that illustrate various propaganda techniques and identify them with your child
- Encourage your child to interview people to gather first-hand information
- Have your child edit and revise homework assignments to ensure the best quality of work
- Encourage your child to read books that you enjoyed in order to support independent reading

Books

- Anderson, Laurie Halse. *Speak*
- Armstrong, Lance. *It's Not About the Bike: My Journey Back to Life*
- Draper, Sharon. *Romiette and Julio*
- Korman, Gordon. *Son of the Mob*
- Myers, Walter Dean. *Fallen Angels*
- Olshan, Matthew. *Finn*
- Pearson, Mary E. *Scribbler of Dreams*
- Woodson, Jacqueline. *If You Come Softly*

Web Sites

- The Internet Public Library – <http://www.ipl.org>
- Folger Shakespeare Library – <http://www.folger.edu>
- National Parent Teacher Association – <http://www.pta.org>
- Surfing the Net with Kids – <http://www.surfnetkids.com>
- United States Department of Education – <http://www.ed.gov/parents>
- The Write Source – <http://www.thewritesource.com/>
- Paradigm Online Writing Assistant – <http://my.powa.org/>

MATHEMATICS

The mathematics standards for grades nine through twelve contained in the South Carolina Mathematics Academic Standards 2007 provide the essential content students are expected to learn during their entire high school mathematics career. Academic standards are specified for five high school core areas: elementary algebra, intermediate algebra, geometry, precalculus, and data analysis and probability. Content topics contained in elementary algebra are given below. Students in **9th grade** are generally enrolled in **Algebra 1** or **Mathematics for the Technologies 1**. Students are scheduled to take the Algebra 1/Mathematics for the Technologies 2 End-of-Course Examination at the end of Algebra 1 and Mathematics for the Technologies 2. Those students who took Algebra 1 in the seventh or eighth grade may be enrolled in Geometry or Algebra 2. Since mathematics is taught in specific mathematics courses rather than as an integrated system in most high schools, standards for courses are incorporated into course outlines in the document *Outlines of High School Mathematics Courses* found on the State Department of Education Web site <http://www.ed.sc.gov/>. Other mathematics courses may be available as well for students in schools on a semester block schedule.

Elementary Algebra

The academic standards for the elementary algebra core area establish the process skills and core content for Algebra 1, Mathematics for the Technologies 1, and Mathematics for the Technologies 2.

The content of the elementary algebra standards includes:

- The real number system
- Operations involving exponents, matrices, and algebraic expressions
- Relations and functions
- Writing and solving linear equations
- Graphs and characteristics of linear equations
- Quadratic relationships and functions

Hand-held graphing calculators are required as part of instruction and assessment. Students should use a variety of representations (concrete, numerical, algorithmic, graphical), tools, and technologies to model mathematical situations in order to solve meaningful problems.

Sample Assessment Question

Sample assessment questions for Algebra 1 and Mathematics for the Technologies 2 can be found at <http://www.ed.sc.gov/agency/offices/assessment/programs/endofcourse/End-of-CourseExaminationProgramEOCEP.html>

Activities:

Have your child:

- Explain and solve the following problem: A taxi company charges \$1.75 plus \$0.25 for every quarter mile. A second company charges \$1.25 plus \$0.35 for every quarter mile. Which company has the best rate? An extension problem could have the companies increasing or decreasing their fixed charges according to changes in services offered. How would this affect the problem?
- Explain the difference between a relation and a function. Give examples of a function and a relation using tables or ordered pairs.
- Analyze characteristics of equations by placing a 3-meter ramp at heights of $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and 1 meter. Roll a toy car down the ramp and time the roll. Plot the points (i.e., represent as (height, time)). Predict what happens as the slope of the ramp decreases or increases.

Books:

- *Algebra to Go*. (Published by Great Source Education Group; (1-800-289-4490)
- Bills, Chris. *Eight Days a Week: Puzzles, Problems and Questions to Activate the Mind*
- Karnes, Frances A. and Kristen R. Stephens. *Young Women of Achievement: A Resource for Girls in Science, Math and Technology*

Web Sites:

- <http://education.ti.com>
- www.illuminations.nctm.org

SCIENCE

Physical Science

Overview: Students in grade nine are generally enrolled in Physical Science. The academic standards for Physical Science establish the scientific inquiry skills and core content for all Physical Science classes in South Carolina schools. The course should provide students with a conceptual understanding of the world around them — a basic knowledge of the physical universe that should serve as the foundation for other high school science courses. The standards should be used to make decisions concerning the structure and content for Physical Science classes that are taught. These decisions involve choices regarding additional content, activities, and learning strategies and depend on the particular objectives of the individual classes. All Physical Science classes must include inquiry-based instruction, allowing students to engage in problem solving, decision-making, critical thinking, and applied learning. In other words, students should spend more of their class time choosing the right method to solve a problem and less time solving problems that merely call for repetitive procedures.

For a complete listing of the Physical Science Indicators, go to <http://ed.sc.gov/topics/curriculumstds/subjects>, download the 2005 Academic Science Standards and refer to pages 61-68.

The physical science course is divided into two sections. One section is an introduction to chemistry and the other is an introduction to physics. Scientific inquiry is integrated continually throughout both sections.

The standards addressed in each part of physical science include:

Scientific Inquiry

- Demonstrate an understanding of how scientific inquiry and technological design, including mathematical analysis, can be used appropriately to pose questions, seek answers, and develop solutions

Chemistry: Structure and Properties of Matter

- Demonstrate an understanding of the structure and properties of atoms
- Demonstrate an understanding of various properties and classifications of matter
- Demonstrate an understanding of chemical reactions and the classifications, structures, and properties of chemical compounds

Physics: Interactions of Matter and Energy

- Demonstrate an understanding of the nature of forces and motion
- Demonstrate an understanding of the nature, conservation, and transformation of energy
- Demonstrate an understanding of the nature and properties of mechanical and electromagnetic waves

Sample Assessment Questions

Sample questions for the Physical Science End-of-Course test are available at: <http://ed.sc.gov/agency/offices/cso/PSCCompanion.html>

Activities:

Have your child:

- View programs such as NOVA on PBS
- View programs such as Mr. Wizard and Bill Nye the Science Guy on the Discovery Channel
- Discuss current science events in the nightly news and in the newspaper
- Attend local science fairs, museums, the Roper Mountain Science Center in Greenville, and a planetarium
- Investigate activities of the SC Junior Academy of Science at <http://www.erskine.edu/scjas/>
- Build model rockets or electronic devices from kits
- Cook by following a recipe and by varying a recipe
- Conduct soil or water tests on your property and research the acceptable levels of dissolved materials necessary for various plant and animal needs
- Read labels and discuss the function of ingredients in various substances, such as foods and cleaning products
- Learn to play musical instruments and discuss the variables that influence the pitch and the volume of the tones produced
- Research energy efficiency when purchasing a car or an appliance
- In the context of an eye exam, research and discuss how various lenses can correct vision

Web Sites

- Exploratorium – www.exploratorium.edu
- Frank Potter's Science Gems-more than 14000 science resources sorted by category and grade level – www.sciencegems.com
- Center for Improved Engineering and Science Education – <http://www.k12science.org/currichome.html>
- The Smithsonian Institution – www.si.edu
- What Should I Look For in the Science Program in My Child's School: A Guide for Parents – <http://www.scimathmn.org>
- Amusement Park Physics – <http://www.learner.org/exhibits/parkphysics/>

SOCIAL STUDIES

Students should be able to:

Global Studies

- Explain the influence of Athenian government and philosophy on other civilizations
- Summarize the essential characteristics of Roman civilization and explain their impact today
- Explain the rise and growth of Christianity during the classical era
- Explain the impact of religion in classical Indian civilization
- Explain the influence of the Byzantine Empire
- Summarize the origins, beliefs, and expansion of Islam
- Summarize the influences of trans-Saharan trade on Africa
- Compare the origins and characteristics of the Mayan, Aztec, and Incan civilizations
- Summarize the functions of feudalism and manorialism in medieval Europe
- Analyze the upheaval and recovery that occurred in Europe during the Middle Ages
- Compare the impact of the Renaissance and the Reformation on life in Europe
- Explain the long-term effects of political changes that occurred in Europe during the sixteenth, seventeenth, and eighteenth centuries
- Summarize the origins and contributions of the scientific revolution
- Explain the ways that Enlightenment ideas spread through Europe and their effect on European society
- Explain the significant changes that took place in China in the nineteenth century
- Explain the impact of European involvement on other continents during the era of European expansion
- Compare the revolutions that took place on the European and American continents in the nineteenth century
- Explain the causes and effects of transformation in Europe in the nineteenth century
- Compare the political actions of European, Asian, and African nations in the era of imperial expansion
- Summarize the causes of World War I
- Summarize the worldwide changes that took place following World War I
- Explain the impact of the Great Depression and political responses in Germany, Britain, and the United States
- Explain the causes, key events, and outcomes of World War II
- Compare the ideologies and global effects of totalitarianism, communism, fascism, Nazism, and democracy in the twentieth century
- Exemplify the lasting impact of World War II
- Summarize the ideologies and global effects of communism and democracy
- Summarize the worldwide effects of the Cold War
- Compare the challenges and successes of the movements toward independence and democratic reform in various regions following World War II
- Summarize the impact of economic and political interdependence on the world

Activities:

Have your child:

- Watch and discuss the nightly news. Look for examples of global interdependence and its effects on the world.
- Create a travel brochure that illustrates daily life in one of the classical civilizations. View historical documentaries on television (for example, on PBS or the History Channel) and discuss how the events shown in the program are related to historical topics being studied at school.
- Read biographies about people from a variety of places and time periods being studied
- Interview family or community members about what it was like to live through World War I, World War II, or the Cold War

Books:

- Adkins, Lesley and Roy Adkins. *Handbook to Life in Ancient Rome*
- Birch, Cyril, ed. *Stories from a Ming Collection*
- Brokow, Tom. *The Greatest Generation*
- Atchity, Kenneth J., ed. *The Classical Greek Reader*
- Bunsen, Matthew. *Encyclopedia of the Middle Ages*
- Dersin, Diane, ed. *What Life Was Like on the Banks of the Nile, Egypt 3050-30 BC*
- Ebry, Patricia. *The Cambridge Illustrated History of China*
- Fischer, Louis. *Gandhi: His Life and Message for the World*
- Hakim, Joy. *The First Americans*
- Hamilton, Edith. *The Greek Way*
- Haugaard, Erik. *Cromwell's Boy*
- Keegan, John. *Illustrated History of the First World War*
- Le Carre, John. *The Spy Who Came in from the Cold*
- Macaulay, David. *Castle*
- Macaulay, David. *Cathedral*
- Macaulay, David. *Pyramid*
- Macaulay, David. *Roman City*
- More, Thomas. *Utopia*. Translated by Paul Turner
- Ross, Frank, Jr. *Oracle Bones, Stars, and Wheelbarrows*
- Saggs, H.W.F. *Babylonians*
- Sosin, Gene. *Sparks of Liberty: An Insider's Memoir of Radio Liberty*
- Vail, John. *"Peace, Land, Bread!": A History of the Russian Revolution*
- Wiesel, Elie. *Night, Dawn, The Accident: Three Tales*

Web Sites:

- Electronic Research - Library of Congress - <http://lcweb.loc.gov/>
- National Museum of African Art - www.si.edu/nmafa/
- National Gallery of Art - www.nga.gov
- National Geographic Society - www.nationalgeographic.org



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