

A Guide for Parents and Families About What Your **EIGHTH 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 **Eighth 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 **Eighth Grade**. The complete South Carolina Academic Standards for each subject area can be found at www.ed.sc.gov.

The state-developed test, Palmetto Assessment of State Standards (PASS), is based on the South Carolina Academic Standards. Sample PASS Test items can be viewed online at www.eoc.sc.gov/informationforeducators/TestItems.htm.

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 (PASS) on grade-level academic standards 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 (SCDE):
www.ed.sc.gov

South Carolina Education Oversight Committee (EOC):
www.eoc.sc.gov

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

Sample PASS Test Items:
www.eoc.sc.gov/informationforeducators/TestItems.htm

ENGLISH LANGUAGE ARTS

Students should be able to:

Reading

- Explain how a paradox is a statement that makes a contradiction, but has a bit of truth in it
- Understand the effect of allusion on the meaning of a story
- Write, act, and make presentations in response to reading
- Make inferences and draw conclusions by comparing and contrasting information from one or more texts
- Discuss how an author can reveal a preference about a subject through word choice or the inclusion or exclusion of relevant information
- Understand the use of propaganda techniques
- Read independently for various reasons
- Understand that subtle meanings of words can affect the meaning of text
- Determine the meaning of words by using knowledge of their Greek or Latin parts

Writing

- Use planning strategies to organize writing
- Use a variety of sentence types and lengths to make writing interesting
- Use correct grammar, punctuation, and spelling in writing
- Improve writing by editing and revising
- Create reports and letters of request, inquiry, or complaint
- Write stories (for example, memoirs), about important personal relationships
- Create persuasive pieces (for example, editorials, essays, or speeches) that support a clearly stated opinion

Research

- Use direct quotations, paraphrases, or summaries to incorporate information from multiple sources into writing or speaking
- Use organizational strategies to prepare information for written or oral presentations
- Select graphics to enhance written or oral presentations from print or electronic sources
- Create research projects

Activities

- Read and discuss the same book your child is reading
- Take your child to a movie or play and draw conclusions about it
- Discuss movies, plays, or books by comparing and contrasting them
- Have your child read editorials in the newspaper and determine the writer's bias or slant
- Have your child select a topic he/she is interested in learning more about. Read a fiction and nonfiction book about the topic. After reading both books, discuss how the information is the same or different.
- Identify paradoxes when watching television, movies or when listening to the radio
- Challenge your child. See who can identify more paradoxical statements in reading—you or your child.
- Look for allusions when watching television or a movie
- Encourage your child to write a letter to the manufacturer of something he/she owns to complain, ask a question, or gather more information
- Discuss controversial issues with your child. Ask questions that make him/her defend his position.
- Read memoirs of great people's lives with your child. Evaluate the relationships described in the book to better understand the person.
- Have your child write a memoir
- When your child asks your permission for something, ask him to create a short persuasive speech that supports his/her request

Books

- Bauer, Joan. *Rules of the Road*
- Draper, Sharon. *Tears of a Tiger*
- Ewing, Lynne. *Drive-By*
- Fletcher, Susan. *Shadow Spinner*
- Hesse, Karen. *Out of the Dust*
- Ingold, Jeanette. *Pictures, 1918*
- Mikaelsen, Ben. *Touching Spirit Bear*
- Myers, Walter Dean. *Slam*
- Philbrick, Rodman. *Freak the Mighty*
- Spinelli, Jerry. *Stargirl*

Web Sites

- Surfing The Net with Kids – <http://www.surfnetkids.com>
- United States Department of Education – <http://www2.ed.gov/parents>
- Internet Public Library – <http://www.ipl.org/div/kidspage/>
- The Write Source – <http://www.thewritesource.com>

MATHEMATICS

Students should be able to:

Numbers and Operations

- Apply an algorithm (method to solve a problem) to add, subtract, multiply, and divide integers (the set of whole numbers and their opposites)
- Understand the concept of irrational numbers (numbers that cannot be written as fractions, for example, the square root of two is a decimal that never ends nor repeats)
- Apply procedures to approximate square and cube roots (see last bullet under “Activities”)

Algebra

- Apply procedures to solve multi-step equations
- Classify relationships between two variables as either linear or nonlinear
- Identify the coordinates of the x- and y-intercepts of a linear equation
- Understand slope (the measure of the steepness of a line as you look at it from left to right) as a constant rate of change

Geometry

- Apply the Pythagorean theorem
- Use ordered pairs, equations, intercepts, and intersections to locate points and lines in a coordinate plane
- Apply dilation (magnification) on a square, rectangle, or right triangle in a coordinate plane and analyze the effect

Measurement

- Apply strategies and formulas to determine volume of three-dimensional shapes
- Use multi-step unit analysis to convert between and with the U.S. Customary System and the metric system

Data Analysis and Probability

- Apply procedures to compute the odds (the ratio of favorable outcomes to unfavorable outcomes) of a given event

SCIENCE

Continued

Books:

- Carruthers, M. W. *The Moon*
- Downs, Sandra. *Earth's Fiery Fury*
- Fullick, A. *Under Pressure: Forces*
- Grace, K. *Forces of Nature: The Awesome Power of Volcanoes, Earthquakes, and Tornadoes*
- Heinlein, Robert. *Have Spacesuit - Will Travel*
- Kittinger, Jo. *Stories in Stone: The World of Animal Fossils*
- Lafferty, P. *Eyewitness: Force and Motion*
- Maslin, Mark. *Restless Planet Series: Earthquakes*
- Ride, S. and T. O'Shaughnessy. *Exploring Our Solar System*

Activities:

Have your child:

- Use sales papers to determine the cost for a different number of items than those listed in the ad. For example, if the item is on sale at 5 items for \$6.97, what would the cost of 12 items be?
- Draw a shape such as a square, triangle, or trapezoid on grid paper. You should magnify the shape by some amount (2 times as large, 3 times as large, etc.). Have them draw the magnified shape and compare the perimeter and area of the two shapes.
- Pretend to be in the following situation: locked out of a house with an open window 25 feet above the ground. A ladder must be used, but there's a flowerbed along the edge of the house, so the ladder must be placed 9 feet from the house. Use the Pythagorean Theorem to determine how long the ladder must be to reach the window.
- Record the speed in miles per hour of a car traveling on the highway using the speedometer. Convert the miles per hour into feet per second.
- Approximate $\sqrt{66}$ between two whole numbers using the following strategy. Recall the nearest perfect square root less than and the nearest perfect square root greater than the number $\sqrt{64}$ and $\sqrt{81}$. Since $\sqrt{64} = 8$ and $\sqrt{81} = 9$, then must equal a little bit more than 8. Repeat with different numbers.

Books:

- *Algebra To Go*. (Published by Great Source Education Group; 1-800-289-4490)
- Blatner, David. *The Joy of π*
- DiSpezio, Michael A. *Critical Thinking Puzzles*
- Gavin, M. Katherine, Carole E. Greenes, Carol R. Findell and Linda Jensen. *Awesome Math Problems for Creative Thinking*
- Peterson, Ivars and Nancy Henderson. *Math Trek: Adventures in the MathZone*
- Stickels, Terry. *Are You As Smart As You Think?*

Web Sites:

- www.figurethis.org – Challenging and engaging activities for middle school students
- www.math.com – Site has on-line calculators, games, and tutoring assistance

- Sauvain, P. *Motion (The Way It Works)*

- Spangenburg, R. and K. Moser. *A Look at the Sun*
- Stille, D. *Waves: Energy on the Move*
- Sussman, Art. *Dr. Art's Guide to Planet Earth*

Web Sites:

- AAAS Science Netlinks - www.sciencenetlinks.com
- Franklin Institute - www.fi.edu
- Force and Motion - www.physics4kids.com
- Virtual Solar System - www.nationalgeographic.com/solarsystem

SCIENCE

Students should be able to:

Inquiry

- Design a controlled scientific investigation
- Recognize the importance of a systematic process for safely and accurately conducting investigations
- Construct explanations and conclusions from interpretations of data obtained during a controlled scientific investigation
- Generate questions for further study on the basis of prior investigations
- Explain the importance of and requirements for replication of scientific investigations
- Use appropriate tools and instruments (including convex lenses, plane mirrors, color filters, prisms, and slinky springs) safely and accurately when conducting a controlled scientific investigation
- Use appropriate safety procedures when conducting investigations

Earth's Biological History

- Explain how biological adaptations of populations enhance their survival in a particular environment
- Summarize how scientists study Earth's past environment and diverse life-forms by examining different types of fossils
- Explain how Earth's history has been influenced by catastrophes that have affected the conditions on Earth and the diversity of its life-forms
- Recognize the relationship among the units —era, epoch, and period— into which the geologic time scale is divided
- Illustrate the vast diversity of life that has been present on Earth over time by using the geologic time scale
- Infer the relative age of rocks and fossils from index fossils and the ordering of the rock layers
- Summarize the factors, both natural and man-made, that can contribute to the extinction of a species

Earth's Structure and Processes in Earth System

- Summarize the three layers of Earth —crust, mantle, and core— on the basis of relative position, density, and composition
- Explain how scientists use seismic waves —primary, secondary, and surface waves— and Earth's magnetic fields to determine the internal structure of Earth
- Infer an earthquake's epicenter from seismographic data
- Explain how igneous, metamorphic, and sedimentary rocks are interrelated in the rock cycle
- Summarize the importance of minerals, ores, and fossil fuels as Earth resources on the basis of their physical and chemical properties
- Explain how the theory of plate tectonics accounts for the motion of the lithospheric plates, the geologic activities at the plate boundaries, and the changes in landform areas over geologic time
- Illustrate the creation and changing of landforms that have occurred through geologic processes
- Explain how earthquakes result from forces inside Earth
- Identify and illustrate geologic features of South Carolina and other regions of the world through the use of imagery and topographic maps

Astronomy-Earth and Space Systems

- Summarize the characteristics and movements of objects in the solar system
- Summarize the characteristics of the surface features of the Sun:

- photosphere, corona, sunspots, prominences, and solar flares
- Explain how the surface features of the Sun may affect Earth
- Explain the motions of Earth and the Moon and the effects of these motions as they orbit the Sun
- Explain how the tilt of Earth's axis affects the length of the day and the amount of heating on Earth's surface, thus causing the seasons of the year
- Explain how gravitational forces are influenced by mass and distance
- Explain the effects of gravity on tides and planetary orbits
- Explain the difference between mass and weight by using the concept of gravitational force
- Recall the Sun's position in the universe, the shapes and composition of galaxies, and the distance measurement unit (light year) needed to identify star and galaxy locations
- Compare the purposes of the tools and the technology that scientists use to study space

Forces and Motion

- Use measurement and time-distance graphs to represent the motion of an object in terms of its position, direction, or speed
- Use the formula for average speed, $v = d/t$, to solve real-world problems
- Analyze the effects of forces on the speed and direction of an object
- Predict how varying the amount of force or mass will affect the motion of an object
- Analyze the resulting effect of balanced and unbalanced forces on an object's motion in terms of magnitude and direction
- Summarize and illustrate the concept of inertia

Waves

- Recall that waves transmit energy, but not matter
- Distinguish between mechanical and electromagnetic waves
- Summarize factors that influence the basic properties of waves
- Summarize the behaviors of waves
- Explain hearing in terms of the relationship between sound waves and the ear
- Explain sight in terms of the relationship between the eye and the light waves emitted or reflected by an object
- Explain how the absorption and reflection of light waves by various materials result in the human perception of color
- Compare the wavelength and energy of waves in various parts of the electromagnetic spectrum

Activities:

Have your child:

- Research an extinct plant or animal and why or how it became extinct
- Create a fossil collection. Fossils can often be found on beaches and in quarries.
- Make a model of the solar system, a volcano, or the Earth's layers
- Go sky gazing to observe and discuss the phases of the moon, changes in the position of constellations from season to season and watch for meteors and comets
- Start a rock or mineral collection and create a field guide to identify the samples
- Conduct Internet research or visit the local library and find the various ways that energy waves affect us every day
- Design and launch a model rocket

SOCIAL STUDIES

Students should be able to:

South Carolina: One of the United States

- Summarize the collective and individual aspects of the Native American culture of the Eastern Woodlands tribal group, including the Catawba, Cherokee, and Yemassee
- Compare the motives, activities, and accomplishments of the exploration of South Carolina and North America by the Spanish, French, and English
- Summarize the history of English settlement in New England, the mid-Atlantic region, and the South, with an emphasis on South Carolina as an example of a distinctly southern colony
- Explain the significance of enslaved and free Africans in the developing culture and economy of the South and South Carolina, including the growth of the slave trade and resulting population imbalance between African and European settlers; African contributions to agricultural development; and resistance to slavery, including the Stono Rebellion and subsequent laws to control slaves
- Explain how South Carolinians used their natural, human, and political resources uniquely to gain economic prosperity, including settlement by and trade with the people of Barbados, rice and indigo planting, and the practice of mercantilism
- Compare the development of representative government in South Carolina to representative government in the other colonial regions, including the proprietary regime, the period of royal government, and South Carolina's Regulator Movement
- Explain the political and economic consequences of the French and Indian War on the relationship of the South Carolina colonists with Native Americans and England
- Summarize the response of South Carolina to events leading to the American Revolution, including the Stamp Act, the Tea Acts, and the Sons of Liberty
- Explain the roles of South Carolinians in the adoption of the Declaration of Independence
- Compare the perspectives of different groups of South Carolinians during the American Revolution, including Patriots, Tories/Loyalists, women, enslaved and free Africans, and Native Americans
- Summarize the role of South Carolinians in the course of the American Revolution, including the use of partisan warfare and the battles of Charleston, Camden, Cowpens, Kings Mountain and Eutaw Springs
- Explain the role of South Carolinians in the establishment of their new state government and the national government after the American Revolution
- Explain the tensions between the Upcountry and the Lowcountry of South Carolina, including their economic struggles after the Revolutionary War, their disagreement over representation in the General Assembly, the location of the new capital, and the transformation of the state's economy
- Explain the role of South Carolina and its leaders in the Constitutional Convention, including their support of the Three-Fifths Compromise and the Commerce Compromise as well as the division among South Carolinians over the ratification of the Constitution
- Explain the basic principles of government as established in the United States Constitution
- Analyze the position of South Carolina on the issues that divided the nation in the early 1800s, including the assumption of state debts, the creation of a national bank, the protective tariff and the role of the United States in the European conflict between France and England and in the War of 1812
- Explain the importance of agriculture in antebellum South Carolina, including the plantation system and the impact of the cotton gin on all social classes
- Analyze how sectionalism arose from racial tension, including the Denmark Vesey plot, slave codes and the growth of the abolitionist movement
- Analyze key issues that led to South Carolina's secession from the Union, including the nullification controversy and John C. Calhoun, the extension of slavery and the compromises over westward expansion, the Kansas-Nebraska Act, the Dred Scott decision, and the election of 1860
- Evaluate the arguments of unionists, cooperationists, and secessionists on the issues of states' rights and slavery and the ways that these arguments contributed to South Carolina's secession
- Compare the military strategies of the North and the South during the Civil War and the fulfillment of these strategies in South Carolina and in the South as a whole, including the attack on Fort Sumter, the Union blockade of Charleston and other ports, the early capture of Port Royal, and the development of the Hunley submarine; the exploits of Robert Smalls; and General William T. Sherman's march through the state
- Compare the differing impact of the Civil War on South Carolinians in each of the various social classes, including those groups defined by race, gender, and age
- Analyze the development of Reconstruction policy and its impact in South Carolina, including the presidential and the congressional reconstruction plans, the role of black codes, and the Freedmen's Bureau
- Describe the economic impact of Reconstruction on South Carolinians in each of the various social classes
- Summarize the successes and failures of Reconstruction in South Carolina, including the creation of political, educational, and social opportunities for African Americans; the rise of discriminatory groups; and the withdrawal of federal protection
- Summarize the policies and actions of South Carolina's political leadership in implementing discriminatory laws that established a system of racial segregation, intimidation, and violence
- Compare industrial development in South Carolina to industrialization in the rest of the United States, including the expansion of railroads, the development of the phosphate and textile industries, and immigration
- Compare the plight of farmers in South Carolina with that of farmers throughout the United States, including the problems of overproduction, natural disasters, and sharecropping and encompassing the roles of Ben Tillman, the Populists, and land-grant colleges
- Compare migration patterns of South Carolinians to such patterns throughout the United States, including the movement from rural to urban areas and the migration of African Americans from the South to the North, Midwest, and West
- Compare the Progressive movement in South Carolina with the national Progressive movement, including the impact on temperance; women's suffrage; labor laws; and educational, agricultural, health, and governmental reform
- Explain the reasons for United States involvement in World War I and the war's impact on South Carolina and the nation as a whole, including the building of new military bases and the economic impact of emigration to industrial jobs in the North

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SOCIAL STUDIES Continued

- Explain the causes and effects of changes in South Carolina and the nation as a whole in the 1920s, including Prohibition, the destruction caused by the boll weevil, the rise of mass media, improvements in daily life, increases in tourism and recreation, the revival of the Ku Klux Klan, and the contributions of South Carolinians to the Harlem Renaissance and the Southern Literary Renaissance
- Explain the reasons for depressed conditions in the textile mills and on farms in South Carolina and other regions of the United States in the 1920s and the impact of these conditions on the coming of the Great Depression
- Explain the effects of the Great Depression and the lasting impact of the New Deal on people and programs in South Carolina, including James F. Byrnes and Mary McLeod Bethune, the Rural Electrification Act, the general textile strike of 1934, the Civilian Conservation Corps, the Works Progress Administration, the Public Works Administration, the Social Security Act, and the Santee Cooper electricity project
- Compare the ramifications of World War II on South Carolina and the United States as a whole, including the training of the Doolittle Raiders and the Tuskegee Airmen, the building of additional military bases, the rationing and bond drives, and the return of economic prosperity
- Compare the social and economic impact of World War II and the Cold War on South Carolina with its impact on the rest of the United States, including the increases in the birth rate; the emergence of the consumer culture; the expanding suburbanization, highway construction, tourism and economic development; the continuing growth of military bases and nuclear power facilities; and the increases in educational opportunities
- Analyze the movement for civil rights in South Carolina, including the impact of the landmark court cases *Elmore v. Rice* and *Briggs v. Elliot*; civil rights leaders Septima Poinsette Clark, Modjeska Monteith Simkins, and Matthew J. Perry; the South Carolina school equalization effort and other resistance to school integration; peaceful efforts to integrate beginning with colleges and demonstrations in South Carolina such as the Friendship Nine and the Orangeburg Massacre
- Explain changing politics in South Carolina, including the role of Strom Thurmond, the shift from the Democratic Party to the Republican Party, and the increasing political participation of African Americans and women
- Summarize key economic issues in present-day South Carolina, including the decline of the textile industry, the state's continuing right-to-work status, the changes in agricultural emphasis, the growing globalization and foreign investment, the influx of immigrants and migrants into the Sunbelt, the increased protection of the environment, the expanding number of cultural offerings, and the changes in tax policy

Activities:

Have your child:

- Label sites of Native American lands, important settlements, colonies, and battles on a map. Talk about the importance of these sites in South Carolina history.
- Tour the state capital in Columbia to learn more about state government
- Visit and interview a state member of Congress or the General Assembly about current issues affecting South Carolina's economic development

- Visit historic museums, such as the South Carolina State Museum, to see how our society has developed and changed over the years
- Visit Revolutionary War and Civil War sites and memorials in South Carolina
- Watch historical videos or television programs on Native Americans, the Revolutionary War, and the Civil War. Talk about how the content of these programs relate to historical topics being studied in school.
- Read local and state newspapers. Look for articles or advertisements related to tourism. Talk about the effects of tourism on South Carolina's economy.
- Visit the downtown area of Charleston to see the influence of the English and Irish on its society and architecture
- Visit Fort Moultrie and learn about the design on South Carolina's state flag

Books:

- Edgar, Walter. *South Carolina – A History*
- King, Davis C. *First Facts About U.S. History*
- McKissack, Patricia C. and Frederick McKissack. *Rebels Against Slavery*
- Patrick, Diane. *The New York Public Library Amazing African-American History*
- Rhyne, Nancy. *Tales of the Lowcountry*
- Swagert, Christine. *Black Crows and White Cockades*
- Thomas, David Hurst and Lorann Pendleton. *Exploring Native North America*

Web Sites:

- African Slave Trade – www.theviproom.com/visions/slave.htm
- American Local History Network – www.alhn.org
- African-American Mosaic - www.loc.gov/exhibits/african/afam015.html
- Battle of Cowpens - www.theamericanrevolution.org/battles/bat_cowp.asp
- Black Soldiers in the Civil War - www.archives.gov/education/lessons/blacks-civil-war
- Civil War Time Line – www.historyplace.com/civilwar/index.html
- Earthquake of 1886 – www.sfmuseum.org/1906.2/charleston.html
- Eliza Lucas Pinckney – http://en.wikipedia.org/wiki/Eliza_Lucas
- Gilder Lehrman Institute of American History – www.gilderlehrman.org
- Gullah Culture – <http://www.knowitall.org/gullahnet/>
- Library of Congress American Memory – <http://memory.loc.gov/>
- Lords Proprietors – www.ricehope.com/history/LordProprietors.htm
- National Archives and Records Administration – www.nara.gov
- North by South – www.northbysouth.org
- Ordinance of Secession - http://avalon.law.yale.edu/19th_century/ordnull.asp
- Public Broadcast System – www.pbs.org
- South Carolina Native Americans – www.native-languages.org/scarolina.htm
- South Carolina's First Constitution – www.nhumanities.org/ccs/docs/sc-1776.htm
- South Carolina History – <http://www.knowitall.org/schistory/>
- Smithsonian National Museum of American History – www.americanhistory.si.edu
- The Clay Compromise by John C. Calhoun – <http://www.nationalcenter.org/CalhounClayCompromise.html>