

A Guide for Parents and Families About What Your **SEVENTH 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 **Seventh 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 **Seventh 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 the effect that point of view has on a story
- Explain the use of metaphors throughout a piece of writing
- Determine if characters in a story change or remain the same
- Discuss the use of imagery, symbolism, and irony
- Identify the theme(s) in a story
- Write, act, draw, or make a presentation in response to what is read
- Read independently for various reasons
- Draw conclusions and make inferences about information in one text or across several texts
- Describe how an author can reveal his opinion about a subject by including or leaving out relevant information
- Analyze how the use of print styles, chapter headings, and other formats impact the meaning of nonfiction texts
- Interpret the information presented in charts and graphs
- Understand how subtle meanings of words can change the meaning of a text
- Understand the meaning of words by using knowledge of their Greek or Latin parts

Writing

- Organize writing by using planning strategies
- Use a wide variety of sentence types and lengths
- Use correct grammar, punctuation, and spelling
- Use ellipses and parentheses correctly
- Improve writing by editing and revising
- Create books, movies, product reviews, and news reports
- Write personal essays on poems about an issue of personal importance
- Write descriptions to include in essays
- Create persuasive writings with a stated opinion (for example, essays and letters to the editor)

Research

- Use direct quotations, paraphrases, or summaries to incorporate information from multiple sources into writing or speaking
- Use vocabulary appropriate for a particular audience or purpose
- Use organizational strategies to prepare information for writing or speaking assignments
- Create research projects by selecting a topic, asking guiding questions, finding resources, and organizing information

Activities

- Encourage your child to keep a journal and write for extended periods of time
- Help your child select and narrow research topics by asking specific questions about topics of interest
- Access electronic encyclopedias and other reliable electronic information from a computer
- Have your child use language appropriate for different audiences and purposes
- Encourage your child to write about personal experiences and explain why they are important to him/her
- Discuss your child's opinion about a topic addressed on a television show or from something read
- Use charts or graphs, (for example, those included in a television guide) to gather information
- Discuss the theme(s) of movies or books
- Discuss the characters in television shows, movies, or books and what makes them different. Discuss how a character changes or stays the same.
- Identify irony when watching television shows or reading books

Books

- Bauer, Joan. *Backwater*
- Bunting, Eve. *Black Water*
- Cummings, Priscilla. *The Red Kayak*
- Curtis, Christopher Paul. *Bud, Not Buddy*
- Freedman, Russell. *Eleanor Roosevelt: A Life of Discovery*
- Hiaasen, Carl. *Hoot*
- Korman, Gordon. *No More Dead Dogs*
- Paulsen, Gary. *Hatchet*
- Rinaldi, Ann. *Cast Two Shadows: The American Revolution in the South*
- Sachar, Louis. *Holes*
- Spinelli, Jerry. *Crash*
- Thompson, Kate. *Switchers*

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/kidspace/>
- The Write Source – <http://www.thewritesource.com>

SCIENCE

Students should be able to:

Inquiry

- Use appropriate tools and instruments safely and accurately when conducting a controlled scientific investigation
- Generate questions that can be answered through scientific investigation
- Explain the reasons for testing one independent variable at a time in a controlled scientific investigation
- Explain the importance that repeated trials and a well-chosen sample size have with regard to the validity of a controlled scientific investigation
- Explain the relationships between independent and dependent variables in a controlled scientific investigation through the use of appropriate graphs, tables, and charts
- Critique a conclusion drawn from a scientific investigation
- Use appropriate safety procedures when conducting investigations

Cells and Heredity

- Summarize the structures and functions of the major components of plant and animal cells
- Compare the major components of plant and animal cells
- Compare the body shapes of bacteria and the body structures that protists use for food gathering and locomotion
- Explain how cellular processes essential to the survival of the organism
- Summarize how genetic information is passed from parent to offspring by using the terms genes, chromosomes, inherited traits, genotype, phenotype, dominant traits, and recessive traits
- Use Punnett squares to predict inherited monohybrid traits
- Distinguish between inherited traits and those acquired from environmental factors

Human Systems and Disease

- Summarize the levels of structural organization within the human body
- Recall the major organs of the human body and their function within their particular body system
- Summarize the relationships of the major body systems
- Explain the effects of disease on the major organs and body systems

Ecology – the Biotic and Abiotic Environment

- Summarize the characteristics of the levels of organization within ecosystems
- Illustrate energy flow in food chains, food webs and energy pyramids
- Explain the interaction among changes in the environment due to natural hazards, changes in populations, and limiting factors
- Explain the effects of soil quality on the characteristics of an ecosystem

- Explain the effects of soil quality on the characteristics of an ecosystem
- Summarize how the location and movement of water on Earth's surface through groundwater zones and surface-water drainage basins, called watersheds, are important to ecosystems and to human activities
- Classify resources as renewable or nonrenewable and explain the implications of their depletion and the importance of conservation

The Chemical Nature of Matter

- Recognize that matter is composed of extremely small particles called atoms
- Classify matter as element, compound, or mixture on the basis of its composition
- Compare the physical properties of metals and nonmetals
- Use the periodic table to identify the basic organization of elements and groups of elements
- Translate chemical symbols and the chemical formulas of common substances to show the component parts of the substances (including NaCl [table salt], H₂O [water], C₆H₁₂O₆ [simple sugar], O₂ [oxygen gas], CO₂ [carbon dioxide], and N₂ [nitrogen gas])
- Distinguish between acids and bases and use indicators (including litmus paper, pH paper, and phenolphthalein) to determine their relative pH
- Identify the reactants and products in chemical equations
- Explain how a balanced chemical equation supports the law of conservation of matter
- Compare physical properties of matter to the chemical property of reactivity with a certain substance
- Compare physical changes to chemical changes that are the result of chemical reactions

Activities:

Have your child:

- Make a model of one of the human body systems using common household items (such as balloons, wires, or flexible pipes)
- Collect samples of soil from several different environments, analyze the soil for moisture content, pH, organic matter, etc. and compare the biotic life found with each soil sample
- Research the possible effects on human body systems of air, water, or soil pollution
- Start a recycling project in his/her home or school
- Identify examples of chemical and physical changes in your home or environment such as rusting, food spoilage, and the freezing and thawing of water
- Create an acid/base indicator solution by boiling red cabbage in water. Use the indicator solution to test the pH of various household substances (such as lemon juice, ammonia, vinegar, etc.).

MATHEMATICS

Students should be able to:

Numbers and Operations

- Understand fractional percentages and percentages greater than 100
- Understand the concept of square roots and the inverse relationship between squaring and finding square roots of perfect squares
- Understand the meaning of absolute value (the distance between zero and an integer on a number line)
- Generate strategies to add, subtract, multiply, and divide integers (the set of whole numbers and their opposites)
- Apply an algorithm (method to solve a problem) to multiply and divide fractions and decimals

Algebra

- Use inverse operations to solve two-step equations and inequalities
- Classify and explain proportional relationships

Geometry

- Translate between two-dimensional and three-dimensional representations of compound figures
- Create tessellations (completely covering a surface with no gaps or overlaps) with transformations (slide, flip, and turn) and explain the angle-measure relationships among shapes that tessellate

Measurement

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

Data Analysis and Probability

- Apply procedures to calculate the interquartile range and the probability of mutually exclusive events

Activities:

Have your child:

- Draw a number line that has both negative and positive numbers.

SCIENCE

Continued

Books:

- Beres, Samantha. *101 Things Every Kid Should Know about the Human Body*
- Bial, Raymond. *A Handful of Dirt*
- Carson, Rachel. *Silent Spring – 40th Anniversary Edition*
- The Earthworks Group. *50 Simple Things Kids Can Do To Save the Earth*
- Friedlander, Mark P, Jr. *Outbreak: Disease Detectives at Work*
- Kalumuck, Karen E. and The Exploratorium Teacher Institute. *Human Body Explorations: Hands-On Investigations of What Makes Us Tick*
- Morgan, Sally. *Life Science In Depth: Cells and Cell Function*

Explain why the distance from -3 to 0 is the same as the distance from 0 to +3

- Plan a picnic. A given amount of money must cover the cost of food, napkins, and plastic utensils. Give examples of direct proportion (e.g., the amount of money you spend on napkins varies directly with the amount of guests you have), inverse proportion (e.g., the number of people you invite will vary inversely with the amount of food each guest will be able to eat) and non-proportion situations (e.g., the number of people who will also bring their children). Repeat the activity with a new real-world situation.
- Use a tape measure to measure the circumference and height of an empty soda can. Then use a formula to determine the surface area of the can using the measurements. Compute the surface area a second way by cutting the top and bottom of the can off and cutting the can so that it lays flat in the shape of a rectangle. Measure the sides of the rectangle and calculate its area, as well as the area of the top and bottom of the can. Compare this result with the previous calculation. This should be done with adult supervision because the cut can will have sharp edges.
- Go on a pretend shopping spree using sale papers and select as much merchandise for a given dollar amount. Please be sure to include percent discounts and sales tax.

Books:

- Barlow, Bob. *Bob Barlow's Book of Brain Boosters!*
- Fitzgerald, Theresa. *Math Dictionary for Kids: The Essential Guide to Mathematical Terms, Strategies and Tables*
- *Geometry To Go*. (Published by Great Source Education Group; 1-800-289-4490)
- Johnson, Art. *Famous Problems and Their Mathematicians*
- Lasky, Katherine. *The Librarian Who Measured the Earth*
- Neuschwander, Cindy. *Sir Cumference and the Great Knight of Angleland: A Math Adventure*
- Suiter, Mary and Sarapage McCorkle. *Money Mathematics: Lessons for Life*

Web Sites:

- www.figurethis.org – Challenging and engaging activities for middle school students

- Nardi, James. *World Beneath Our Feet: A Guide to Life in the Soil*
- Winner, Cherie. *Erosion*
- Walker, Richard. *Genes and DNA*

Web Sites:

- AAAS Science Netlinks - www.sciencenetlinks.com
- Biology4Kids - www.biology4kids.com
- Chem4Kids - www.chem4kids.com/
- Learning Network Parent Channel - www.familyeducation.com
- Science Made Simple - www.sciencemadesimple.com
- SC Department of Natural Resources - www.dnr.state.sc.us

SOCIAL STUDIES

Students should be able to:

Contemporary Cultures: 1600 to the Present

- Compare the colonial claims and the expansion of European powers through 1770
- Explain how technological and scientific advances contributed to the power of European nations
- Summarize the policy of mercantilism as a way of building a nation's wealth, including government policies to control trade
- Analyze the beginnings of capitalism and the ways that it was affected by mercantilism, the developing market economy, international trade, and the rise of the middle class
- Compare the differing ways that European nations developed political and economic influences, including trade and settlement patterns, on the continents of Asia, Africa, and the Americas
- Analyze the characteristics of limited government and unlimited government that evolved in Europe in the 1600s and 1700s
- Explain how the scientific revolution challenged authority and influenced Enlightenment philosophers, including the importance of the use of reason, the challenges to the Catholic Church, and the contributions of Galileo and Sir Isaac Newton
- Analyze the Enlightenment ideas of John Locke, Jean-Jacques Rousseau, Montesquieu, and Voltaire that challenged absolutism and influenced the development of limited government
- Explain the effects of the English Civil War and the Glorious Revolution on the power of the monarchy in England and on limited government
- Explain how the Enlightenment influenced the American and French revolutions leading to the formation of limited forms of government, including the relationship between people and their government, the role of constitutions, the characteristics of shared powers, the protection of individual rights, and the promotion of the common good
- Explain the causes, key events, and outcomes of the French Revolution, including the storming of the Bastille, the Reign of Terror, and Napoleon's rise to power
- Analyze the effects of the Napoleonic Wars on the development and spread of nationalism in Europe, including the Congress of Vienna, the revolutionary movements of 1830 and 1848, and the unification of Germany and Italy
- Explain how the Haitian, Mexican, and South American revolutions were influenced by Enlightenment ideas as well as by the spread of nationalism and the revolutionary movements in the United States and Europe
- Explain how the Industrial Revolution caused economic, cultural, and political changes around the world
- Analyze the ways that industrialization contributed to imperialism in India, Japan, China, and African regions, including the need for new markets and raw materials, the Open Door Policy, and the Berlin Conference of 1884
- Explain reactions to imperialism that resulted from growing nationalism, including the Zulu wars, the Sepoy Rebellion, the Opium Wars, the Boxer Rebellion, and the Meiji Restoration
- Explain the causes and effects of the Spanish-American War as a reflection of American imperialist interests, including acquisitions, military occupations, and status as an emerging world power
- Explain the causes and course of World War I, including militarism, alliances, imperialism, nationalism, the assassination of Archduke Franz Ferdinand, the impact of Russia's withdrawal from, and the United States entry into the war
- Explain the outcomes of World War I, including the creation of President Woodrow Wilson's Fourteen Points, the Treaty of Versailles, the shifts in national borders, and the League of Nations
- Explain the causes and effects of the worldwide depression that took place in the 1930s, including the effects of the economic crash of 1929
- Compare the ideologies of socialism, communism, fascism, and Nazism and their influence on the rise of totalitarian governments after World War I in Italy, Germany, Japan, and the Soviet Union as a response to the worldwide depression
- Summarize the causes and course of World War II, including drives for empire, appeasement and isolationism, the invasion of Poland, the Battle of Britain, the invasion of the Soviet Union, the "Final Solution," the Lend-Lease program, Pearl Harbor, Stalingrad, the campaigns in North Africa and the Mediterranean, the D-Day invasion, the island-hopping campaigns, and the bombing of Hiroshima and Nagasaki
- Analyze the Holocaust and its impact on European society and Jewish culture, including Nazi policies to eliminate the Jews and other minorities, the Nuremberg trials, the Universal Declaration of Human Rights, the rise of nationalism in Southwest Asia (Middle East), the creation of the state of Israel, and the resultant conflicts in the region
- Compare the political and economic ideologies of the United States and the Soviet Union during the Cold War
- Summarize the impact of the Truman Doctrine, the Marshall Plan, the North Atlantic Treaty Organization (NATO), the United Nations, and the Warsaw Pact on the course of the Cold War
- Explain the spread of communism in Eastern Europe, Asia, Africa, and Latin America, including the ideas of the satellite state containment, and the domino theory
- Analyze the political and technological competition between the Soviet Union and the United States for global influence, including the Korean Conflict, the Berlin Wall, the Vietnam War, the Cuban missile crisis, the "space race," and the threat of nuclear annihilation
- Analyze the events that contributed to the collapse of the Soviet Union and other communist governments in Europe, including the growth of resistance movements in Eastern Europe, the policies of Mikhail Gorbachev and Ronald Reagan, and the failures of communist economic systems
- Summarize the political and social impact of the collapse/dissolution of the Soviet Union and subsequent changes to European borders, including those of Russia and the Independent Republics, the Czech Republic, and Slovakia; the breakup of Yugoslavia; the reunification of Germany; and the birth of the European Union (EU)
- Compare features of nationalist and independence movements in different regions in the post-World War II period, including Mohandas Gandhi's role in the non-violence movement for India's independence, the emergence of nationalist movements in African and Asian countries, and the collapse of the apartheid system in South Africa
- Explain the ongoing conflicts in the Middle East, including the Persian Gulf War, the terrorist attack on September 11, 2001, and the wars in Iraq and Afghanistan
- Compare the social, economic, and political opportunities for women in various nations and societies around the world, including those in developing and industrialized nations and within societies dominated by religions

SOCIAL STUDIES

Continued

- Explain the significance and impact of the information, technological, and communications revolutions, including the role of television, satellites, computers, and the Internet
- Summarize the dangers to the natural environment that are posed by population growth, urbanization, and industrialization, including global influences on the environment and the efforts by citizens and governments to protect the natural environment

Activities:

Have your child:

- Watch and discuss a national news program. Have a map with you and locate the places mentioned in the newscast. Talk about how some of the places covered in the news relate to the topics being discussed in social studies class.
- Find a map of Europe in the 1700s and draw lines from European countries to their respective colonies in North America
- Talk about how technological and scientific advances such as the compass, cannons, and rifles helped European nations explore and conquer other lands
- Think about and discuss the relationship between European explorers and Native Americans
- Think about and discuss life in an African community before and after interaction with Europeans
- Get a copy of the U.S. Constitution and talk about why we have this document
- Find information about the Industrial Revolution and talk about the roles of children during this time. Compare that situation to present-day laws about child labor.
- Visit museums or memorials related to World War I and World War II
- Take a tour of the USS Yorktown at Patriots Point in Charleston
- Interview a family member or community member who remembers events during the Cold War
- Identify items in your home that are products of the information and communications revolution (Internet, satellite dish, computer, television). Talk about how these products have changed people's lives at home and in the workplace.
- Talk about actions your child and his/her friends could take to protect the environment

Books:

- Berry, James. *Ajeemah and His Son*
- Filipovic, Zlata. *Zlata's Diary: A Child's Life in Sarajevo*
- Fritz, Jean. *Shh! We're Writing the Constitution*
- Mead, Alice. *Adem's Cross*
- Naidoo, Beverly. *Journey to Jo'burg*
- Richter, Hans Peter. *Friedrich*
- Siegal, Aranka. *Upon the Head of the Goat*

- Watkins, Yoko K. *So Far From the Bamboo Grove*
- Westall, Robert. *Blitzcat*
- *World Almanac*
- *World Atlas*

Web Sites:

- African Slave Trade – www.theviproom.com/visions/slave.htm
- Berlin Wall – www.dailysoft.com/berlinwall/history/berlinwall-timeline.htm
- Bill of Rights – www.archives.gov/exhibits/charters/charters.html
- CIA Homepage for Kids – <https://www.cia.gov/kids-page/index.html>
- Cold War – www.atomicarchive.com/History/coldwar/page01.shtml
- Colonial Africa – www.wheaton.edu/bgc/archives/exhibits/collins/colins02.htm
- Colonies and Empires – www.saburchill.com/history/chapters/empires/0001.html
- Constitution – www.congressforkids.net/Constitution_workbegins.htm
- Energy Sources – www.energy.gov/energysources/index.htm
- European Imperialism – www.casahistoria.net/imperialism.htm
- 1492: An Ongoing voyage - www.loc.gov/exhibits/1492/
- Galileo Project – <http://galileo.rice.edu/>
- Great Depression – <http://history1900s.about.com/library/photos/blyindexdepression.htm>
- History for Kids – www.historyforkids.org
- Imperialism in Asia (map) – www.wnorton.com/college/history/ralph/resource/impasia.htm
- Industrial Revolution – www.fordham.edu/halsall/mod/modsbook14.html
- The Internet - www.computerhistory.org/internet_history/
- Latin American Independence Leaders – <http://pachami.com/English/LatinoamericaE.html>
- Library of Congress – <http://lcweb2.loc.gov/frd/cs/cshome.html>
- Mariner's Museum – www.mariner.org/educationalad/ageofex/activities.php
- National Geographic – www.nationalgeographic.com
- Russo-Japanese War – http://en.wikipedia.org/wiki/Russo-japanese_war
- Sadler Report on Child Labor – <http://history.hanover.edu/courses/excerpts/111sad.html>
- Space Race - www.pbs.org/wgbh/amex/moon/timeline/index.html
- Spanish-American War – www.loc.gov/rr/hispanic/1898/intro.html
- United States Holocaust Museum – www.usholocaustmuseum.com
- Universal Declaration of Human Rights – www.un.org/Overview/rights.html
- Vietnam War – www.pbs.org/wgbh/amex/vietnam/whos/index.html
- Women's Rights – www.constitution.org/woll/seneca.htm
- World War I (maps) – www.firstworldwar.com/maps/westernfront.htm
- World War II and the Depression – <http://memory.loc.gov/ammem/>