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ABSTRACT

This guide shares information about the South Carolina Curriculum Standards with parents. The standards outline state requirements for children's learning, and what students across the state should be able to do in certain subjects. The guide lists seven key reasons for parents to be aware of the new curriculum standards, and then presents a condensed version of the standards for fifth grade in mathematics (numbers and operation, algebra, geometry, measurement, data analysis and probability), English/language arts (reading/literature, listening, speaking, writing, research, computer/technology), science (inquiry and process skills, life science, earth science, physical science), and social studies (history: time, continuity, and change; government/political science: power, authority, and governance; geography: people, places, and environments; economics: production, distribution, and consumption). Listed after the standards for each subject area are sample assessment questions for parents to complete with their children, selected book titles for additional reading, and Web site addresses for extended learning. (EV)

# A Guide for Parents and Families about What Your 5th Grader Should Be Learning in School This Year. Don't Fail Your Children.

South Carolina Department of Education,
South Carolina Education Oversight Committee

Fall 2001

# A Guide for Parents and Families About What Your 5th Grader Should Be Learning in School This Year

***It's no longer a secret...***

This guide shares important information about the South Carolina Curriculum 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. Curriculum 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 standards are being learned at each grade level.

The student standards that follow are a condensed version of the South Carolina Curriculum Standards for Mathematics, English/Language Arts, Science and Social Studies for **5th Grade**. They are provided to help you become familiar with what your child is expected to do at the end of **5th Grade** so that you can reinforce and support what your child is learning at school. Listed after the standards for each subject area are sample assessment questions for you to complete with your child, selected book titles for additional reading and website addresses for extended learning. This version does not include every standard taught in **5th Grade**. If you are interested in the complete South Carolina Curriculum Standards, check with your child's teacher.

Before moving on to the next grade, students in grades 3 to 8 will be expected to score at or above grade level on state-developed tests – Palmetto Achievement Challenge Tests (PACT) – that test student knowledge of the South Carolina Curriculum Standards.

South Carolina Curriculum Standards.

Here are seven key reasons parents should be in the **know** about the new curriculum 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 curriculum 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 curriculum standards.
4. Standards help parents to know if their child is being taught the same subject content as children across the nation. South Carolina Curriculum Standards have been matched and compared with standards of other states to make sure that they are challenging.
5. Standards help parents to know more about the academic progress of their child and provide assistance at home in areas where the children need help. Parents no longer have to guess the type of help their children need to do better in school. Standards give parents more specific information for helping their children at home.
6. Standards help parents to participate more actively in parent/teacher conferences. Knowledge of the curriculum standards helps parents understand more about what their children are 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 children.
7. Standards help parents to understand that what their children learn in school one year ties into what they will learn in the next year and in future years. Parents are able to see how their child's knowledge is growing from one year to the next.

# MATHEMATICS

Students will be able to:

## Numbers and Operation

- Order lists of three or more numbers that contain whole numbers, decimals or both.
- Compare fractions using symbols and words, "greater than" (>) "less than" (<), or "equal to" (=).
- Identify equivalent relationships among fractions, decimals and percents.
- Explain the characteristics of prime numbers and composite numbers.
- Determine the least common multiple (lcm) of two whole numbers.
- Solve problem situations using multiplication and division.
- Describe the relationship among the four operations.
- Develop fluency in dividing whole numbers and explain the method used to find the quotient (answer).
- Use a variety of estimation strategies to solve problems involving whole numbers.
- Estimate the sum and difference of decimals through hundredths.
- Add and subtract fractions using concrete models, pictures and equivalent forms.
- Add and subtract decimals through thousandths.
- Create and solve problems involving the four operations with whole numbers, using appropriate methods and tools.

## Algebra

- Represent and analyze patterns and relationships using words, tables and graphs.
- Use a variable to write an open sentence, such as 15 = 4 + A.
- Use tables, graphs and stories to describe the same event.

## Geometry

- Use models and appropriate vocabulary to classify quadrilaterals, polyhedra, cones and cylinders according to their characteristics.
- Compare two-dimensional shapes (pictures) to determine if they are similar (have the same shape).
- Make and test predictions about geometric properties and relationships, and develop arguments to justify conclusions.
- Locate and name points in the first quadrant of a coordinate system.
- Find the distance between points in the first quadrant of a coordinate system along horizontal and vertical lines.
- Predict the results of combining slides, flips and turns of geometric shapes.
- Determine whether two-dimensional shapes (pictures) and designs have been rotated (turned) around a point.
- Draw and build three-dimensional objects.
- Draw the front, top and side views of a model built with cubes.

## Measurement

- Use models to investigate and describe the measure of the circumference of a circle as length.
- Create examples of right prisms with a given volume and explain the method used.
- Select and use appropriate tools and units to measure given items to an indicated precision.
- Determine the amount of elapsed time in hours, minutes and seconds within a 24-hour period.
- Measure angles using a protractor (0° to 180°).
- Describe and determine the area of a rectangle and its related triangles and parallelograms.
- Use models to develop and describe strategies for determining volume and surface area of rectangular solids.

## Data Analysis and Probability

- Construct and interpret tables and line graphs of data collected in real-world situations.
- Compare and explain the benefits of each type of graph that may be used to represent a given data set.
- Find the mean, median, mode, range and outliers of a data set and describe what each one means as related to the data set.
- Determine the probability (likelihood of an event) of a simple single-stage event, such as tossing a coin or a two-stage event, such as tossing a coin and then rolling a die.

*Sample PACT Question*

Kala said that the greatest common factor of 15 and 65 was 15. Is she correct? Explain your reasoning.

**Answer** She is incorrect. 15 is not a factor of 65.

**Activities:**

Have your child:

- Draw/write what comes next in a series of related pictures/numbers and discuss the reasoning used.
- Use materials such as toothpicks and gumdrops to build three-dimensional shapes, record the number of sides (faces), corners (vertices) and edges, and look for patterns.
- Pick two points in time and discuss the amount of time that has elapsed between those two points.
- Use objects such as pages out of a magazine to make fraction puzzles and discuss the relationship of com binations of pieces to the whole picture.

**Books:**

- Clement, Rod. *Counting on Frank.*
- Coville, Bruce. *My Teacher Flunked the Planet.*
- Coerr, Eleanor. *The Josefina Story Quilt.*
- Irvine, Joan. *Build It With Boxes.*
- MacLachlan, Patricia. *Sarah, Plain and Tall.*
- Sharp, Dr. Richard M. and Dr. Seymour Metzner. *The Sneaky Square and 113 Other Math Activities for Kids.*

**Websites:**

- www.myscschools.com – Site where parents can view all curriculum standards
- www.illuminations.nctm.org – Click on "I-Math Investigations" for interactive learning.
- www.figurethis.org – This site has fun and engaging mathematics questions for children.
- www.edu4kids.com/math - This interactive site allows students to practice basic facts.

# ENGLISH/LANGUAGE ARTS

Students will be able to:

## Reading/Literature

- Figure out the meanings of unfamiliar words and phrases by using knowledge of word parts and phonetic rules, and by using a dictionary, glossary and thesaurus.
- Read works of fiction, nonfiction, and poetry.
- Describe characters (people), plot (what happens) and the problem and solution in stories read.
- Use organizers such as diagrams to organize information from reading.
- Describe what happened and why it happened in a story or part of a story.
- Draw conclusions and give reasons for them.
- Tell how ideas in a story and in different stories are alike and how they are different.
- Understand how a story fits into history and its culture.
- Select and read independently for extended periods of time daily.

## Listening

- Draw conclusions, organize and summarize information, and share responses in all subjects.
- Follow directions that have several steps.
- Listen, form opinions and give reasons for them from what was heard.

## Speaking

- Establish eye contact with the audience and use appropriate posture and gestures for effect when making oral presentations.
- Use facial expressions to make an oral presentation more interesting.
- Plan an oral presentation using a logical order of major ideas.
- Summarize main points of a topic when speaking.
- Use visual aids to make a presentation more interesting.
- Use correct grammar and speak slowly and loudly enough to be heard.
- Offer information through presentations, debates, panel discussions and dramatization.

## Writing

- Write to describe, inform, entertain and explain.
- Use planning strategies before writing.
- Use organizers such as diagrams to organize information.
- Use effective vocabulary.
- Write several related paragraphs with an effective introduction, middle and conclusion.
- Revise writing for clarity.
- Edit (correct) final copy for grammar, capital letters, punctuation and spelling.
- Write clearly and neatly.
- Use available technology such as computers.
- Write and publish stories, poems, plays, etc.
- Use characteristics of good literature in developing writing style.
- Write in all subject areas to better understand ideas and to record experiences.
- Write for different audiences and purposes.
- Write for extended periods of time daily.

## Research

- Develop questions to be answered.
- Skim materials to locate information needed.
- Put information in his/her own words.
- Organize and record information that comes from a variety of places.
- Make notes on important concepts.
- Record and organize information by using charts, graphs, diagrams, etc.
- Use computers when available.

## Computer/Technology

The technology standards below will be integrated into all instruction as appropriate. Be sure to check with your child's teacher for a complete list.

- Understand basic computer theory including bits, bytes and binary logic.
- Understand the terms: cursor, software, memory, disk drive, hard drive and CD-ROM.
- Develop basic keyboarding skills.
- Process, store, retrieve and transmit electronic information.
- Communicate through application software. For example: create a document using word processing skills.

*Sample PACT Questions*

You will now write your own letter. This letter should show your best writing.

Remember to:

- Write interesting and clear ideas.
- Use details and descriptions.
- Write a beginning, middle and end.
- Stay on topic.
- Check spelling.
- Check punctuation.
- Check for correct use of capital letters.

- Write a letter from Brian to the editor of the newspaper encouraging people to come to the recycling center. Use information from the pamphlet in the letter.
  *Brian Jones lives at 1430 Senate Street, Columbia, SC 29201. [extended-response]*
- Write notes, make a list, make a web or do any other prewriting you need to do.



(ENGLISH/LANGUAGE ARTS CONTINUED ON BACK)

# SCIENCE

Students will be able to:

## Inquiry and Process Skills

- Use the senses and simple tools to gather information about objects or events.
- Compare, sort and group objects according to size, shape, color, texture, sound and position and arrange in sequential order.
- Estimate and measure mass, length, area, perimeter, volume and temperature using U.S. customary and metric units.
- Use drawings, tables, graphs, written and oral language to describe objects and to explain ideas and actions.
- Explain and interpret observations, making inferences and predictions based on data and prior knowledge.
- Discriminate among observations, inferences and predictions.
- Devise statements of assumption (hypotheses) that can be supported or refuted through experimentation.
- Design and conduct a scientific investigation based on a specific question or problem.
- Identify parts of an experiment that are manipulated (independent variable), responded (dependent variable) or controlled.

## Life Science

- Recognize that all organisms are made of cells, and observe and identify cell parts.
- Describe how the respiratory and circulatory systems work together, identify major organs and their function, and identify common diseases and disorders associated with each system.
- Investigate how different plant and animal populations in an ecosystem interact with one another and with their environment, and describe what happens to a population when basic needs are not met.
- Describe the producers, decomposers, consumers, prey and predators in a food web.
- Recognize the importance of photosynthesis in food webs and draw a diagram of how energy flows through food webs.

## Earth Science

- Describe and model how the Earth's surface is constantly changing as a result of constructive forces (such as volcanic eruption and deposition of sediment) and destructive forces (such as weathering and erosion).
- Identify and describe the landform regions of South Carolina (Blue Ridge, Piedmont, Sandhills, Coastal Plains and Coastal Zone).
- Explain the effect of waves, currents, tides and storms on the ocean shore zones.
- Identify the geological features of the ocean floor and investigate the lithosphere and how plate movement produces volcanoes, earthquakes and mountain building.
- Identify and describe the water cycle and explain how it affects the salinity of the ocean's water.

## Physical Science

- Distinguish between a mixture and a solution, create and classify mixtures made of two or more substances, and investigate separating mixtures.
- Explain the difference between diluted and concentrated solutions, and identify the dangers and safety concerns associated with household solutions.
- Identify common pollutants and their effect on water quality.
- Investigate movements of objects and the variables that affect speed.
- Investigate how forces (such as gravity, friction, magnetism, etc.) affect the motion of objects.

*Sample PACT Question*

PACT questions are not available for distribution at this time.

**Activities:**

Have your child:

- Identify and describe the types of plants and animals and their environments he/she sees during a nature walk.
- Discuss the impact of human and industrial growth on ecosystems.
- Create a model of the Earth's surface labeling the different landforms using salt, water, and flour.
- Read labels from household products and discuss safety procedures related to the products.
- Design a ramp and determine the speed of a toy car as it travels across the ramp at different heights.

**Books:**

- Gardner, Robert. *Science in Your Backyard.*
- Gilbreath, Alice T. The Continental Shelf: *An Underwater Frontier.*
- Hepworth, Peter. *Ocean Girl.*
- Iverson, Sandra. *Eruption.*
- O'Dell, Scott. *Island of the Blue Dolphins.*
- Southgate, Merrie. *Agnes Pflumm and the Stonecreek Science Fair.*
- Weiner, Esther. *The Incredible Human Body.*
- *Dragonfly* (a monthly magazine for children and their parents published by NSTA, 1840 Wilson Blvd., Arlington, VA.)

**Websites:**

- Bill Nye.com – www.nyelabs.kcts.org/
- EarthForce – www.fi.edu/earth/earth.html
- Learning Network Parent Channel – www.familyeducation.com
- National Geographic Kids Site – www.nationalgeographic.com/kids
- National Parent Information Network – www.npin.org
- Science Made Simple – www.sciencemadesimple.com
- South Carolina Department of Education – www.myscschools.com
- South Carolina ETV's Resources for Teachers, Students and Parents – www.knowitall.org
- The Human Body – www.tqjunior.thinkquest.org/4245

# SOCIAL STUDIES

U.S. Studies 1877 to Present

Students will be able to:

### History: Time, Continuity and Change

- Describe the role of ethnic and cultural groups in the U.S. western expansion.
- Explain how the rise of corporations, heavy industry and mechanical farming changed American society.
- Describe the rise of the American labor movement and how it changed America.
- Analyze the causes of World War I and World War II, and explain why the United States became involved.
- Explain the effect of the Great Depression on the United States and government programs such as Social Security that were developed.
- Identify major historical figures, scientists and inventors in America during this period.
- Summarize the changes in communication, transportation, agriculture, manufacturing and technology during this period and the effects they had on the United States and worldwide.
- Relate how massive immigration after 1870 affected social patterns, cultural diversity and national unity, and helped form a national heritage in various regions of the United States.

### Government/Political Science: Power, Authority and Governance

- Explain ways people can work together to promote the principles and ideals of American democracy.
- Define and explain representative government, rule of law, majority rule, minority rights and popular sovereignty.
- Compare the major responsibilities of national, state and local government, and the importance of political leadership and public service at all levels.
- Explain that nations of the world operate under varying forms of government.

### Geography: People, Places and Environments

- Describe the purposes and characteristics of maps and other geographic representations (such as globes, graphs, diagrams, photographs and satellite-produced images) in books and in computer software.
- Explain ways regions change and how people perceive places and regions differently.
- Compare and contrast the causes and effects of human migration.
- Explain the features and possible problems of various ecosystems related to the natural environment and how people interact with them.
- Use events from 1877 to the present to analyze examples of conflict and cooperation and why people compete for control of land.

### Economics: Production, Distribution and Consumption

- Analyze economic trends, such as interest rates, supply and demand, competition and entrepreneurship.
- Explain the differences between natural resources, capital resources and human resources.
- Examine ways to increase productivity.
- Describe unemployment and inflation, and how they affect the economy.
- Identify the major functions of a bank.
- Analyze how the interdependence of countries, their economies and trade, increased throughout the twentieth century.

*Sample PACT Questions*

PACT questions are not available for distribution at this time.

**Activities:**

Have your child:

- Use cause and effect to identify what caused events in history to happen and the effects the causes produced.
- Complete a graphic organizer on solving conflict.
- Read and predict outcomes.
- List ways to act as a responsible citizen.
- Research political symbols.
- Organize a petition.
- Practice reading maps, charts and graphs.

**Books:**

- Archer, Jules. *A House Divided: The Lives of Ulysses S. Grant and Robert E. Lee.*
- Connell, Kate. *Tales from the Underground Railroad.*
- Cousins, Margaret. *The Story of Thomas Alva Edison.*
- Greenwood, Heather. *The Last Safe House.*
- MacLachlan, Patricia. *Sarah, Plain and Tall.*
- McKissack, Patricia. *Mary McLeod Bethune: A Great Teacher.*
- Parks, Rosa and Gregory J. Reed. *Dear Mrs. Parks: A Dialogue with Today's Youth.*

**Websites:**

- South Carolina Department of Education – www.myscschools.com
- Library of Congress Country Studies – http://lcweb2.loc.gov/frd/cs/cshome.html
- National Parent Information Network – www.npin.org/
- Map Machine – www.nationalgeographic.com/resources/ngo/maps

- Write your letter.
- When you finish, go back and reread your letter.
- Make any changes you want to make neatly on your letter or rewrite your letter.

  Please note: This writing topic is a dependent extended-response item. This item represents an excellent writing topic for classroom work, but this type of extended-response writing will not be required on PACT at grade 5. Only independent extended-response items will be included on PACT at grade 5.

**Activities:**

- Encourage your child to keep a journal.
- Engage in written conversations with your child.
- Encourage your child to write letters or send e-mail to family and friends.
- Tell stories to your child about your childhood and life experiences.
- Have your child write or orally give directions to a younger sibling.
- Have your child pick a topic he/she is interested in. Select a fiction and nonfiction book about that topic. After reading both books with your child, compare and contrast the stories.
- Select a historical fiction novel (a novel based on a particular time in history) from a period in history your child finds interesting. Compare the book to an encyclopedia or internet account of that period in time.
- Provide a variety of types of reading materials for your child – books, magazines, newspapers, empty food boxes, junk mail, etc.
- Reward your child with books or journals.
- Get your child a library card and regularly go to the library or bookstore.
- When watching television or a video, discuss the conflict in the episode.
- Discuss the point of view of a character.
- Discuss how a problem in a show was solved.
- Read aloud to your child.
- Allow your child to read and write, JUST FOR FUN!

**Books:**

- Armstrong, William. *Sounder.*
- Byars, Betsy. *Cracker Jackson.*
- Dahl, Roald. *James and the Giant Peach.*
- DeClements, Barthe. *Nothing's Fair in Fifth Grade.*
- Hesse, Karen. *Letters From Rifka.*
- Lowry, Lois. *Anastasia Krupnik.*
- Naylor, Phyllis Reynolds. *Shiloh.*
- Soto, Gary. *Baseball in April and Other Stories.*
- Taylor, Mildred. *Roll of Thunder, Hear My Cry.*

**Websites:**

- Children's Literature Website – www.acs.ucalgary.ca/~dkbrown/bestbooks
- Georgia Department of Education – www.glc.k12.ga.us
- Learning Page.com – www.sitesforteachers.com
- Carol Hurst's Children's Literature Site – www.carolhurst.com
- Surfing the Net With Kids – www.surfnetkids.com
- United States Department of Education – www.ed.gov.pubs/parents
- South Carolina Department of Education – www.myscschools.com
- National Association for the Education of Young Children – www.naeyc.org
- National Parent Teacher Association – www.pta.org
- National Parent Information Network – www.npin.org

**South Carolina Education Oversight Committee**
1105 Pendleton Street
Suite 227, Blatt Building
Columbia, SC 29201
(803) 734-6148

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