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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 fourth grade in mathematics (numbers and operation, algebra, geometry, measurement, data analysis and probability), English/language arts (reading/literature, listening, speaking, writing, research), 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 4<sup>th</sup> Grader Should Be Learning in School  
This Year. Don't Fail Your Children.

South Carolina Department of Education,  
South Carolina Education Oversight Committee

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# A Guide for Parents and Families About What Your 4th 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 **4th Grade**. They are provided to help you become familiar with what your child is expected to do at the end of **4th 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 **4th 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.



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# MATHEMATICS

Students will be able to:

## Numbers and Operation

- Compare decimals (through hundredths) using words and symbols, "greater than" ( $>$ ), "less than" ( $<$ ) or "equal to" ( $=$ ).
- Identify and represent fraction-decimal equivalents.
- Find the factors of a given number up to 50 (for example:  $18 = 1 \times 18$ ;  $2 \times 9$ ; and  $3 \times 6$ ; therefore, the factors of 18 are 1, 18, 2, 9, 3 and 6).
- Find common multiples of two whole numbers that are less than or equal to 12.
- Use multiplication and division to solve problems.
- Use the associative [ $3 \times (5 \times 2) = (3 \times 5) \times 2$ ] and distributive [ $3 \times 19 = 3 \times 10 + 3 \times 9$ ], properties to multiply efficiently.
- Develop fluency in multiplying whole numbers and explain the method used to find the product.
- Estimate the product of whole numbers with one factor, 2 digits or less, and the other factor, 3 digits or less.
- Explain why a particular method or tool may be the most appropriate one to use when solving a given problem.

## Algebra

- Determine the rule to identify missing numbers in a sequence or table.
- Use equations, such as  $4 + \Delta = 19$  or  $4 + t = 19$ , to represent relationships.
- Describe changes over time using charts and graphs.

## Geometry

- Choose appropriate models of shapes from descriptions of the characteristics of these shapes.
- Classify triangles by lengths of sides and sizes of angles.
- Find possible paths from one point to another along vertical and horizontal grid lines.
- Draw two-dimensional (pictures) shapes that are related by translation (slide) or reflection (flip).
- Draw and label representations of points, lines, line segments, rays and angles.
- Write a description of a given three-dimensional object, such as a cube, prism, a cylinder, sphere, cone or pyramid.
- Identify and build rectangular prisms and cylinders from a given two-dimensional representation (net).

## Measurement

- Investigate and compare angle measures using models.
- Find the area of geometric shapes using models.
- Convert units of measure within the metric system (length, mass and capacity) and within the U.S. customary system (length, weight and liquid volume).
- Select and use an appropriate tool to measure liquid volume including pints and quarts.
- Tell time to the nearest minute and five-minute intervals including A.M. and P.M. with analog (a clock with minute and hour hands) and digital clocks.
- Use models to discover formulas for finding the area of two-dimensional shapes.

## Data Analysis and Probability

- Construct bar graphs with scale increments of one or greater.
- Read and interpret information from tables, line graphs and bar graphs.
- Use line graphs to make predictions.
- Give examples of events for which the probability (likelihood of an event) is between 0 and 1 ("0" is impossible to occur and "1" is certain to occur).

### Sample PACT Question

Mandy and Angela are doing chores for their mom to earn some money. Since Mandy is older, she is earning \$.65 a day. Angela is earning \$.25 a day. Both girls have worked the same number of days. If Angela has earned \$5.00, how much has Mandy earned?

- A. \$8.00
- B. \$13.00
- C. \$20.00
- D. \$23.00

Answer B. \$13.00



### Activities:

Have your child:

- Draw a slide, flip or turn of a two-dimensional shape which you have drawn.
- Practice adding numbers and discuss how this relates to subtraction.
- Practice multiplying two digits times three digits (or less) and relate this to division.
- Help you use a recipe and discuss fractions on a measuring cup or measuring spoons.

### Books:

- Anno, Mitsumasa. *Anno's Mysterious Multiplying Jar*.
- Dahl, Roald. *James and the Giant Peach*.
- Isaacson Phillip. *Round Buildings, Square Buildings and Buildings that Wiggle Like a Fish*.
- Rinkoff, Barbara. *The Case of the Stolen Code Book*.
- Roy, Ron. *Whose Shoes Are These?*
- Schwartz, David. *If You Made a Million*.
- Tompert, Ann. *Grandfather Tang*.

### Websites:

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

Students will be able to:

Reading/Literature

- Figure out meanings of unfamiliar words by using knowledge of phonetics and word parts.
- Know that words can have the same meaning, can have opposite meanings, can sound alike but have different meanings, and that words can have many different meanings depending on how they are used.
- Use a dictionary, thesaurus and glossary.
- Use clues in reading to figure out meanings of phrases or words.
- Make predictions and check throughout the reading of a story to see if the predictions were correct.
- Understand the difference between fact and fantasy, and between fact and opinion.
- Use organizers such as diagrams to help understand information in what he/she reads.
- State the main idea of what he/she has read.
- Draw conclusions about what he/she reads and give reasons for these conclusions from what was read.
- Retell a story in his/her own words.
- Write about what is read.
- Identify the people, places, who is telling the story and the theme of a literary work.
- Recognize why something happens in a story or part of a story.
- Connect what he/she reads to personal experiences.
- Read a variety of poetry and describe forms of the poems (example: how it rhymes).
- Understand how stories fit into history and how they connect to other subject areas.
- Select and read more difficult literature and read independently for extended periods of time.

Listening

- Listen to oral presentations, record information and present information heard.
- Follow directions that have several steps.
- Make judgments and give reasons (evidence) for them from what was heard.

Speaking

- Give accurate directions and information to individuals or a group.
- Use evidence (reasons) to support opinions.
- Speak clearly, slowly, loudly enough, and use correct grammar and effective vocabulary.
- Express ideas with confidence.
- Seek viewpoints and opinions from others by participating in discussions, interviews and conferences.
- Make oral presentations to explain, persuade and describe.
- Use props and other visual aids to make a presentation more interesting.
- Use organizers such as diagrams to plan presentations.

Writing

- Focus on one topic.
- Develop a plan for writing and organize ideas.
- Write several related paragraphs on the same topic.
- Edit (correct) writing for grammar, capital letters, punctuation and spelling.
- Use available technology such as computers.
- Write and publish in a variety of forms such as stories, poems and plays.
- Write clearly and neatly.
- Use vocabulary and knowledge to produce interesting writing.
- Use writing to better understand ideas and to record experiences in all subject areas.
- Record information accurately.
- Write for different audiences.
- Write for extended periods of time daily.

Research

- Develop questions about a topic.
- Use a variety of resources to research a topic, then collect and combine the information.
- Present research orally and in writing.
- Use technology such as computers.

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.
- Choose one of the topics below about which to write a letter.

*Jackie told her mother that BOWL-A-RAMA had the best deal. How could Lucky Lanes change its party package so that Lucky Lanes would have the best deal? Write a letter to the owner of Lucky Lanes suggesting that he/she make those changes.*

*Jackie wants a new girl in her class, Libby, to come to her party. Jackie is afraid Libby will not want to come because she doesn't know any of the other guests. Write a letter to Libby convincing her to come to the party.*

- Write notes, make a list, make a web, or do any other prewriting you need to do.
- Write your letter.

## SCIENCE

Students will be able to:

### Inquiry and Process Skills

- Use the senses and simple tools to gather information about objects or events.
- Compare and sort/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 explain ideas and actions.
- Explain and interpret observations, making inferences and predictions based on data and prior knowledge.
- Select and use appropriate equipment and tools to investigate, observe and describe an object, organism or environment.
- Construct reasonable explanations based on data and communicate the results of their investigation.

### Life Science

- Identify and describe different environments (such as forest, deserts, etc.) in polar, temperate and tropical regions, and the diverse life forms supported by each.
- Identify and describe behaviors influenced by internal cues (such as hunger and thirst) and external cues (such as temperature and light) and how sensory organs detect external cues.
- Identify and describe characteristics and behaviors that are inherited or learned.
- Compare and classify organisms based on significant characteristics (such as body covering, number of legs or type of skeleton).
- Explain and interpret the impact of technology (agricultural and industrial) on society and the environment.

### Earth Science

- State that the sun produces light, while the moon reflects light from the sun.
- Describe the positional relationship among the Earth, moon and sun.
- Observe and record the phases of the moon and the location of constellations throughout the seasons.
- Compare the Earth with other planets (such as properties, location and movement).
- Model and describe how the Earth's rotation around the sun produces day and night and how the tilt of the Earth on its axis produces seasonal changes.
- Observe, record and predict daily and seasonal weather patterns using meteorological tools (such as Fahrenheit/Celsius thermometer, barometer, weather vane, anemometer and rain gauge).
- Research and describe severe weather phenomena, related technology advances and safety concerns.

### Physical Science

- Investigate, describe and explain characteristics of sound (such as pitch and volume) and characteristics of light (reflection, refraction and absorption).
- Describe how the ear receives and transmits sound, and how the eye receives and transmits light.
- Demonstrate and distinguish between static and current electricity.
- Demonstrate and distinguish among different types of circuits (open, closed, parallel and series).
- Predict and test various materials to identify conductors and insulators of electricity.
- Investigate with magnets, identifying magnetic/metal and nonmagnetic/nonmetal objects, the magnetic field, the line of force between like and unlike poles, and electromagnetism.

### Sample PACT Questions

PACT questions are not available for distribution at this time.

### Activities:

Have your child:

- Keep a night sky journal charting the phases of the moon and the location of constellations.
- Observe and record the weather for a month, create drawings or other symbols for the different types of clouds and weather conditions, such as overcast, rainy or sunny.
- Fill a glass bottle with water, tap the side and observe the sound. Change the level of water in the bottle and describe how the pitch changed.
- Keep a log of all daily tasks requiring electricity. Discuss how different a day would be without electricity.

### Books:

- Arnosky, Jim. *Crinkleroot's Guide to Walking in Wild Places*.
- Asimov, Isaac. *Why Does the Moon Change Shape?*
- Baker, Lucy. *Life in the Deserts*.
- Gold, Becky. *Chasing Tornadoes*.
- Hewitt, Sally. *Light and Dark*.
- Jennings, Terry. *Electricity and Magnetism*.
- Kettelkamp, Larry. *The Magic of Sound*.
- Pipher, Tom. *In the Rain Forest*.
- Whyman, Kathryn. *Electricity and Magnetism*.
- *Dragonfly* (a monthly magazine for children and their parents published by NSTA, 1840 Wilson Blvd., Arlington, VA.)

### Websites:

- Department of Natural Resources – [www.dnr.state.sc.us](http://www.dnr.state.sc.us).
- National Parent Information Network – [www.npin.org](http://www.npin.org)
- South Carolina Department of Education – [www.state.sc.us/sde](http://www.state.sc.us/sde)
- South Carolina ETV's Resources for Teachers, Students and Parents – [www.knowitall.org](http://www.knowitall.org)
- Windows to the Universe – [www.windows.engin.umich.edu](http://www.windows.engin.umich.edu)

# SOCIAL STUDIES

## U.S. Studies to 1877

Students will be able to:

### History: Time, Continuity and Change

- Describe and explain the importance of the events in America, Europe and Africa that led to the colonization of North America.
- Compare and contrast the various Native American cultures.
- Compare and contrast the lives of European, African and North American families in various regions in colonial times.
- Describe the key events and the effects of the American Revolution on the new country.
- Identify the framers of the U.S. Constitution, the roles they played and the significance of its development.
- Describe the westward expansion of the U.S. by the early American pioneers.
- Name the major scientists and inventors throughout American history to 1877.
- Explain the changes in technology, communication, transportation, agriculture and manufacturing, and their effects on the U.S. before 1877.
- Describe the events leading to and during the Civil War and Reconstruction, and their effects on the nation.

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

- Explain the functions of government.
- State the nation's basic democratic principles set forth in the Declaration of Independence and the U.S. Constitution.
- Identify historical figures who shaped the values and principles of American democracy.
- Describe the cultural contributions from various regions of the United States and how they help form a national heritage.
- Identify the three branches of the federal government and describe their function.
- Discuss what it means to be a citizen and how a person becomes a citizen.
- Describe how American citizens can participate in their government to influence the decisions and actions of government.

### Geography: People, Places and Environments

- Use maps, globes, graphs, diagrams, photographs and satellite-produced images, both paper reference works and computer software.
- Define the components of the earth's physical systems: the atmosphere, lithosphere, hydrosphere and biosphere.
- Communicate how physical processes (such as rainfall patterns or droughts) help to shape features and patterns on the Earth's surface.
- Compare the causes and effects of human migration in the United States.

### Economics: Production, Distribution and Consumption

- Explain how businesses operate.
- Examine how government regulations influence economic activities of individuals, families, communities and regions.
- Explain why the government collects taxes.
- Define productivity and production.
- Define imports and exports, give examples of each and discuss how they influence interdependence among nations and regions.

### 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.
- Read about historical events and/or people that interest your child.

### 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.myschools.com](http://www.myschools.com)
- Library of Congress Country Studies – <http://lcweb2.loc.gov/frd/cs/cshome.html>
- National Parent Information Network – [www.npin.org/](http://www.npin.org/)
- Map Machine [www.nationalgeographic.com – /resources/ngo/maps](http://www.nationalgeographic.com/resources/ngo/maps)



- 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: The first 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 4. Only independent extended-response items will be included on PACT at grade 4.

**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 make predictions about a story he/she is going to read based on the book jacket or title of the book. Have him/her confirm or reject the predictions using evidence from the story.
- Read and write poetry with your child.
- Encourage your child to say rhymes or chants when playing games such as jump rope or hopscotch.
- When eating at a restaurant, encourage your child to read the menu and order for him/herself.
- Have your child write or orally give directions to a younger sibling.
- 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 was solved.
- Read aloud to your child.
- Allow your child to read and write, JUST FOR FUN!

**Books:**

- Atwater, Richard. *Mr. Popper's Penguins.*
- Babbitt, Natalie. *Tuck Everlasting.*
- Blume, Judy. *Tales of a Fourth Grade Nothing.*
- Coville, Bruce. *My Teacher Is An Alien.*
- Gardiner, John. *Stone Fox.*
- MacLachlan, Patricia. *Sarah Plain and Tall.*
- Mathis, Sharon. *The Hundred Penny Box.*
- Mochizuki, Ken. *Baseball Saved Us.*
- Uchida, Yoshiko. *Jar of Dreams.*

**Websites:**

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



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