



A Guide for Parents and Families About What Your 6th 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 concepts are being learned.



The following pages provide information about the South Carolina Curriculum Standards for mathematics, English language arts, science and social studies for **6th Grade**. The information can help you become familiar with what your child is learning at school and may include sample assessment questions, 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 **6th Grade**. The complete South Carolina Curriculum Standards for each subject area can be found at www.sctlc.com or at www.myschools.com.

The state-developed test, Palmetto Achievement Challenge Test (PACT), is based on the South Carolina Curriculum Standards.

South Carolina Curriculum Standards

Here are seven key reasons parents should be in the **know** about the 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 determine if children in South Carolina are being taught the same subject content as children across the nation. South Carolina Curriculum 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 curriculum 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.

MATHEMATICS

Students should be able to:

Number and Operations

- Show how fractions, decimals and percents are related.
- Use pictures, diagrams and numbers to develop an algorithm (method) for solving problems with fractions and decimals.
- Use pictures, diagrams and numbers to examine several methods of solving fraction and decimal problems in order to choose the best method.
- Add, subtract, multiply and divide fractions and decimals to solve real-world problems.

Algebra

- Describe and extend a wide variety of patterns.
- Write rules (equations and inequalities) that represent relationships determined by patterns.
- Use order of operations to compute the answer to numerical expressions.

Geometry

- Change a geometric figure's position and describe its new location in the coordinate system.
- Given the top, front and side views of a three-dimensional figure; make a model using cubes.

Measurement

- Estimate and then determine length, weight/mass, area and volume/capacity, using standard and nonstandard units of measure.
- Develop and use the formulas for the area of triangles and parallelograms.

Data Analysis and Probability

- Collect, organize, discuss, interpret, analyze and display data using tables and graphs.
- Determine and interpret the likelihood (probability) of an event.

Sample PACT Question

Read the following two statements. Then mark whether the statements are true or false, and give an example to support your choice. [2]

Statement 1: All numbers divisible by 4 are also divisible by 8.

Statement 2: All numbers divisible by 8 are also divisible by 4.

Statement 1 is TRUE / FALSE.

Example: _____

Statement 2 is TRUE / FALSE.

Example: _____

Activities:

Have your child:

- After investigating why Cinco de Mayo, May 5th, is celebrated in Mexico, add, subtract, multiply or divide using five 5's to obtain answers of 1 through 10. Be sure to use parentheses, if necessary, and follow the order of operations.
- Pretend that the 7 key on your calculator is broken. Describe how you can use the calculator to get the product of 747×62 without using the 7 key.
- Calculate percentage problems based on his/her allowance.
- Use the digits 1-5 only once to make a multiplication problem. Arrange the digits to make the largest possible product. Rearrange the digits to make the smallest possible product. Then write a rule that would allow someone else to use any five digits to make the largest or smallest possible product.
- Collect 50 pennies. Arrange coins with dates in order from earliest to latest. Find the median (middle) date and realize that half of your sample was minted after that date. Make a frequency distribution chart. Then based on your chart, make a prediction about the dates of other pennies in circulation. Test your prediction by checking the dates on the next pennies you receive as change.

Books:

- Dryk, Marti. *The Fraction Family Heads West*.
- Findell, Carol and Carol Greenes. *That's Logical! A Unique Puzzle System for Logical Thinking*.
- Gonzales, Nancy A., Merle Mitchell, and Alexander P. Stone. *Mathematical History, 2nd Ed*.
- Kawamura, Miyuki. *Polyhedron Origami for Beginners*.
- Kosky, Valsa. *Teaching Mathematics to Children*
- *Math on Call*. (Published by Great Source Education Group; 1-800-289-4490).
- Reeves, Diane Lindsey. *Career Ideas for Kids Who Like Math*.
- Wyatt, Valerie. *The Math Book for Girls and Other Beings Who Count*.

Web Sites:

- www.figurethis.org – This site has fun, challenging, and engaging mathematics activities for middle school students.
- www.myschools.com or www.sctlc.com – Web sites where parents can view the complete curriculum standards.
- www.scetv.org/education/index.cfm - This site has parent and student activities and ideas.
- www.vrd.org/locator/sites/drmath.shtml - at this site, Dr. Math answers all math related questions.



ENGLISH LANGUAGE ARTS

Students should be able to:

Reading

- Figure out the meanings of unfamiliar words by using knowledge of word parts, word origins and by using dictionaries and other word reference sources.
- Use clues in the meaning of a sentence to figure out unknown words.
- Make predictions and read further to see if they are correct.
- Analyze the main idea and details in a selection.
- Connect what is read to personal experiences and other materials read.
- Draw conclusions from information read and give reasons for the conclusions.
- Tell how information on a topic is alike and different in different pieces of literature.
- Read a variety of selections.
- Tell why the author creates the characters (people) and plot (what happens) in a story.
- Analyze plot, setting, characters, theme, and author's purpose in what is read.
- Select material and read independently for extended periods of time.
- Compare and contrast conflict in what is read.
- Identify elements of poetry (such as rhyme scheme, refrain, and stanza).
- Put what is read into his/her own words.
- Use skimming and scanning techniques to gather information.
- Identify the details that support the thesis (main idea) of what is read.
- Identify propaganda techniques and detect bias in what is read.
- Analyze an author's use of different types of characters as well as his/her use of flashback and foreshadowing, point of view, and tone.
- Analyze the use of extended metaphors, imagery, and symbolism in what is read.
- Make simple and complex analogies.
- Compare and contrast information from two or more pieces of written material.

Communication

- Clarify, compare and contrast points of view from listening to oral presentations.
- Know the difference between fact and opinion in what is heard.
- Summarize main points after listening to conversations and discussions.
- Collect information through interviews, discussions and conferences.
- Work effectively as a member of a group.
- Develop a sense of what is appropriate for different audiences and purposes.
- Express opinions using evidence to support them when presenting material.
- Organize information and plan oral presentations.
- Prepare and present oral reports, demonstrations and brief presentations.

- Make appropriate statements to indicate agreement or disagreement with others' ideas.
- Analyze details, characters, setting, and cause and effect in material from non-print sources.

Writing

- Write to inform, describe, explain, learn and entertain.
- Plan and organize ideas and information.
- Write a rough draft and rewrite for clarity.
- Edit (correct) final copy for errors in grammar, usage, punctuation, capitalization, spelling confusing words and sentence structure.
- Write and publish a variety of ways.
- Write for different audiences and purposes.
- Write for extended periods of time.
- Write multiple-paragraph compositions, friendly letters, and creative and informational pieces.
- Write business letters.
- Use other people's writing as a model for his/her writing.

Research

- Select the best sources for locating information needed for specific purposes.
- Decide whether or not the information is useful and if it is, where it fits into the research.
- Put information in his/her own words.
- Combine and organize information from various sources.
- Begin documenting where information is found.
- Ask questions to guide research.
- Use note-taking strategies to record facts and opinions from sources.

Sample PACT Question

Read the story below. Then answer the questions

The Milkmaid and Her Pail

Patty the Milkmaid was going to market carrying her milk in a pail on her head. As she went along, she began calculating what she would do with the money she would get for the milk. "I'll buy some fowls from Farmer Brown," said she, "and they will lay eggs each morning, which I will sell to the parson's wife. With the money that I get from the sale of these eggs, I'll buy myself a new dimity cotton frock and a chip straw hat and when I go to market, won't all the young men come up and speak to me! Polly Shaw will be so jealous; but I don't care. I shall just look at her and toss my head like this." As Patty spoke, she tossed her head back, the pail fell off it, and all the milk was spilt. So she had to go home and tell her mother what had occurred.

"Ah, my child," said the mother, "do not count your chickens before they are hatched."

"The Milkmaid and Her Pail"-Aesop's *Fables*, reprinted by permission of John R. Long Star Systems.
www.pacificnet.net.

SCIENCE

Students should be able to:

Inquiry and Process Skills

- Make observations of objects and events, distinguishing between qualitative and quantitative observations.
- Arrange data in sequential order and use scientific and dichotomous keys for classification.
- Select and use appropriate tools, units of measurement and technology to collect data for an investigation.
- Make inferences and predictions based on prior knowledge and observable patterns, and discriminate among observations, inferences and predictions.
- Design and conduct scientific investigations, identifying the variables (independent, dependent and controlled), and collect, record, organize, analyze, interpret and communicate the data.
- Identify and implement the four stages of problem solving: identify the problem; design a solution or product; implement the design; and evaluate to see if the design meets the needs and conditions of the identified problem.
- Investigate and describe factors that affect product design, risk versus benefit factors and constraints on technological designs.

Life Science

- Identify and explain the function of plant cell parts and compare plant and animal cells.
- Investigate the structure and characteristics of plants and fungi (mushrooms, yeasts and molds), including plant and fungi reproduction.
- Describe the plant processes of photosynthesis, respiration and transpiration and the importance of plants and fungi in an ecosystem.
- Compare and contrast the major characteristics of land biomes and how plants adapt to survive and reproduce in different biomes.
- Investigate the human skeletal and muscular systems identifying major parts, functions and diseases.

Earth Science

- Investigate the water cycle and explain the formation and classification of clouds and related weather conditions.
- Identify and describe the composition of the Earth's atmosphere, the characteristics of the different layers of the atmosphere and the effect of air pressure at different elevations.
- Investigate water as a solvent explaining the formation of acid rain, weathering of the Earth's surface, and how minerals and salts accumulate in lakes and oceans.
- Identify global wind patterns and oceanic currents, and their influence on local weather.
- Describe the influence of technology in providing information about local and worldwide weather patterns and conditions.

Physical Science

- Investigate the properties of sinking and floating, and the relationship between the object's volume and the densities of substances.
- Investigate and classify characteristic properties of matter (density, boiling point, pH and solubility) and define the three states of matter (and plasma as the fourth state).
- Investigate and distinguish among elements, compounds, mixtures, acids and bases.
- Use the periodic table to identify elements, metals and non-metals and create models of atoms.

- Investigate simple machines to analyze forces and distances.
- Investigate heat, light, sound, electrical, solar and chemical energy and mechanical motion, and explore the transfer of energy.

Sample PACT Question

PACT questions are available at
<http://www.myschools.com/offices/assessment/pact/releaseitems/science.htm>

Activities:

Have your child:

- Grow mold on certain foods that are enclosed in a plastic bag such as bread and fruits. Observe the structure of the mold and changes that occur. Conduct Internet research or visit the local library and research how mold is used in certain medications.
- Dissect several different types of flowers and seeds, identifying the structures and functions in each part.
- Collect and examine weather maps for a week, identifying temperature, air pressure and fronts and predicting weather conditions.
- Design an electromagnet (using a large nail, wire and batteries) to explore ways to make the electromagnet as strong as possible.
- 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).

Books:

- Elsom, Derek. *Weather Explained: A Beginner's Guide to the Elements*.
- Fritz, Jean. *What's the Big Idea, Ben Franklin?*
- Haber, Louis. *Black Pioneers of Science and Invention*.
- Holley, Brian. *Plants and Flowers*.
- Jennings, Terry. *Floating and Sinking*.
- McKinney, Barbara. *A Drop Around the World*.
- Nankivell-Aston, Sally and Dorothy Jackson. *Science Experiments with Simple Machines*.
- Simon, Seymour. *Bones: Our Skeletal System*.
- Stwertka, A. *A Guide to the Elements*.
- Van Cleave, Janice. *Physics for Every Kid*.

Web Sites:

- AAAS Science Netlinks – www.sciencenetlinks.com
- Bill Nye, The Science Guy – www.billnye.com
- Learning Network Parent Channel – www.familyeducation.com
- Physics for Kids – www.kapili.com/physics4kids/index.html
- SC Department of Education – www.myschools.com or sctlc.com
- SC Department of Natural Resources: unit on fungi – www.dnr.state.sc.us/lwc/conservation/fungi.html
- South Carolina ETV's Resources for Teachers, Students and Parents – www.knowitall.org
- The Franklin Institute – www.fi.edu/learning
- The Weather Channel – www.weather.com/

SOCIAL STUDIES

Ancient Cultures to 1600

Students should be able to:

- Analyze the characteristics of hunter-gatherer communities.
- Explain the emergence of agriculture and its effect on early human communities.
- Use maps, globes, and models to explain the role of the natural environment in shaping early civilizations.
- Compare the features and contributions of civilizations in the Tigris and Euphrates, Nile, Indus, and Huang He river valleys.
- Explain the role of economics in the development of early civilizations.
- Compare major religions and philosophies as they emerged and expanded.
- Summarize the significant features of classical Greek civilization.
- Summarize the significant features of classical Roman civilization.
- Explain the expansion and the decline of the Roman Empire.
- Summarize the significant features of classical Indian civilization.
- Summarize the significant features of classical Chinese civilization.
- Explain feudalism and its relationship to the development of European nation states and monarchies.
- Explain the development of English government and legal practices.
- Summarize the course of the Crusades and explain their effects.
- Explain the influence of the Roman Catholic Church in Europe.
- Use a map to illustrate the origins and the spread of the bubonic plague and explain the impact of the plague on society.
- Explain the contributions that the Byzantine Empire made to the world.
- Compare the features and major contributions of the African civilizations of Ghana, Mali, and Songhai.
- Summarize the features and major contributions of Chinese civilization.
- Summarize the features and major contributions of Japanese civilization.
- Compare the significant features and major contributions of Aztec, Mayan, and Incan civilizations.
- Summarize the characteristics of Islamic civilization and the geographic aspects of its expansion.
- Summarize the origins of the Renaissance and its spread throughout Europe.
- Summarize the features and contributions of the Italian Renaissance.
- Explain the significance of humanism and the revival of classical learning in daily life during the Renaissance.
- Identify the key figures of the Renaissance and the Reformation and their contributions.
- Provide examples of developments in the Renaissance that had a lasting impact on culture, politics, and government in Europe.
- Explain the principal causes and key events of the Reformation.
- Use a map to illustrate the principal routes of exploration and trade between Europe, Asia, Africa, and the Americas during the age of European exploration.
- Compare the incentives of the various European countries to explore and settle new lands.

- Illustrate the exchange of plants, animals, diseases, and technology throughout Europe, Asia, Africa, and the Americas (known as the Columbian Exchange), and explain the effect on the people of these regions.

Activities:

Have your child:

- Chart the similarities and differences of early civilizations in Egypt, Mesopotamia, India, and China.
- Create a tour brochure that shows the cultural attractions of a place related to a classical civilization (Greek, Roman, Indian, Chinese).
- Create a timeline of people and events from early civilizations.
- Identify items in the home that were used or invented by ancient civilizations (for example, baskets, clocks, paper, calendars).
- Label a map of the locations of Aztec, Mayan, and Incan civilizations. Discuss the geographic influences on these civilizations.
- Make flashcards of important facts about African or Asian civilizations.
- Read the world section of the newspaper and discuss countries related to early and/or classical civilizations.
- Visit museums when exhibits arrive about early and/or classical civilizations.
- Watch programs on public television or history channels related to early and/or civilizations. Discuss how content in these programs relates to topics being studied in school.
- Write a newspaper article about the spread of the bubonic plague and its effects from the perspective of someone living then.
- Write a poem about an important person of the Renaissance or Reformation.
- Identify a non-native plant or animal in the local community or region. Research its origins, probable course of introduction, and effects on the local environment.

Books:

- Adler, Karen. *The King's Shadow*.
- Caselli, Giovanni. *The Renaissance and the New World*.
- Goodman, Joan Elizabeth. *The Winter Hare*.
- Gravett, Christopher. *World of the Medieval Knight*.
- Hill, Mary C. *The King's Messenger*.
- Powell, Anton and Philip Steele. *The Greek News*.

Series:

- *Cultural Atlas for Young People*.
- *Eyewitness Books*.
- *History of the World*.

Web Sites:

- Ancient Egypt at British Museum - www.ancientegypt.co.uk
- Exploring Ancient World Cultures - eawc.evansville.edu
- History for Kids - www.historyforkids.org
- Smithsonian National Museum and Natural History - www.mnh.si.edu/africanvoices
- SCETV - www.knowitall.org



1. Which statement best describes the milkmaid, as she is depicted in this story.

- A. She is a servant.
- B. She is a traveler.
- C. She is a dreamer.
- D. She is an entertainer.

Answer: C

2. What is the milkmaid's attitude toward Polly Shaw?

- A. She is polite to Polly.
- B. She is sympathetic to Polly.
- C. She is afraid of Polly.
- D. She is jealous of Polly.

Answer: D

3. Where would you most likely find this passage?

- A. a book of fables
- B. encyclopedia
- C. a history textbook
- D. almanac

Answer: A

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.
- Talk to your child. Answer questions and ask “how” and “why” questions.
- Tell stories to your child about your childhood and life experiences.
- Encourage your child to interview older relatives or neighbors.
- Have your child write or orally give directions to a younger sibling.
- Have your child present an oral argument to persuade you to do something.
- Reward your child with books or journals.
- Get your child a library card and regularly go to the library or bookstore.

- Have your child research a topic of interest to him/her using a variety of sources. Have him/her determine which information is most useful and relevant to the topic.
- 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:

- Creech, Sharon. *Love That Dog*.
- Curtis, Christopher. *The Watsons Go to Birmingham*.
- Dicamillo, Kate. *Because of Winn Dixie*.
- Haddix, Margaret. *Running Out of Time*.
- Levine, Gail. *Ella Enchanted*.
- Ryan, Pam. *Esperanza Rising*.
- Young, Ronder Thomas. *Moving Mama to Town*.
- Zindel, Paul. *Raptor*.

Web Sites:

- International Reading Association - www.reading.org
- Media Literacy Clearinghouse – <http://medialit.med.sc.edu>
- National Council of Teachers of English – www.ncte.org
- National Parent Teacher Association – www.pta.org
- South Carolina Department of Education – www.myscschools.com
- Surfing the Net with Kids – www.surfnetkids.com
- United States Department of Education – www.ed.gov/parents

SOCIAL STUDIES CONTINUED

- South Carolina Department of Education - www.myscschools.com
- South Carolina Teaching, Learning and Connecting - www.sctlc.com
- The Knighthood, Chivalry and Tournament Resource Library - www.chronique.com
- National Geographic - www.nationalgeographic.com

South Carolina Education Oversight Committee

PO Box 11867
Blatt Building, Room 227
Columbia, SC 29211
(803) 734-6148

www.sceoc.org