A Guide for Parents and Families about What Your 8th Grader Should Be Learning in School This Year. Don't Fail Your Children.

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Guides - Non-Classroom (055)

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 eighth 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 8th 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 8th 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 8th Grade. They are provided to help you become familiar with what your child is expected to do at the end of 8th 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 8th 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.
Students will be able to:

**Numbers and Operations**
- Use fractions, decimals and integers (rational numbers) to solve real-world problems.
- Explore a variety of methods to solve proportions.
- Use proportions to solve practical problems.

**Algebra**
- Find the values of algebraic expressions by substituting numbers for variables and using the order of operations.
- Simplify a variety of algebraic expressions.
- Solve one- and two-step linear equations and inequalities.
- Use tables, graphs or simple equations to determine if a relationship is linear or nonlinear.

**Geometry**
- Describe how a change in the edge length of different sizes of regular polygons (polygons with equal angles and equal sides) affects the angle measures, perimeters and areas.
- Use the Pythagorean Theorem to find the missing length of a side of a right triangle.
- Given the coordinates (location) of one vertex (point) of a square, rectangle or triangle and the length of the adjacent sides, draw and name the other vertices (points) of the shape.
- Determine the changes in volume and surface area of three-dimensional figures when one or more measurements is changed.

**Measurement**
- Find the area of irregular shapes.
- Use proportions of corresponding angles and/or sides (properties) of similar figures to find the length of a missing side.

**Data Analysis and Probability**
- Identify patterns in graphs to determine if a relationship exists between two sets of data.
- Use relationship between two sets of data to make predictions.
- Compute the probability (likelihood) of two dependent events.

**Sample PACT Question**
A rectangular hot tub is 6 foot long, 5 foot wide and 2.5 foot deep. If water runs in at a rate of 2 cubic feet per minute, how long will it take for the tub to be half full?

A. 18 minutes 45 seconds  
B. 37 minutes 30 seconds  
C. 75 minutes  
D. 18 minutes 75 seconds  
E. 150 minutes

**Answer:** B. 18 minutes 45 seconds

**Activities:**
- Have your child:
  - Make a scale model of your house using square-coordinate grid (graphing) paper.
  - Investigate the cost of owning their “dream car” for a year (include maintenance, taxes and insurance).
  - Find the height of a tree by using ratios to calculate the proportion of your height and your shadow compared to the tree’s shadow and its unknown height.
  - Calculate the square footage of rooms in your home.
  - Follow the stock price per share of a selected company for a month, then calculate the percent of increase or decrease in the price [(difference (original price) x 100].
  - Talk with your child’s teacher about other activities that would support the mathematical skills and concepts he or she will be learning this year.

**Books:**
- Algebra To Go (published by Great Source Education Group; 1-800-289-4490).
- Geometry To Go (published by Great Source Education Group; 1-800-289-4490).

**Websites:**
- www.myscschools.com – Website where parents can view all the 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.
ENGLISH/LANGUAGE ARTS

Students will be able to:

Reading/Literature
- Increase vocabulary by applying previously learned skills and through reading extensively.
- Read and apply knowledge of the elements of various literary forms including short stories, essays, novels, speeches, poetry, and plays.
- Identify main ideas and themes in literature that are not actually stated in the reading.
- Read all types of print materials including technical and career materials in all subject areas.
- Read and follow directions to assemble a model or simple structure.
- Evaluate what is read for bias and opinions.
- Use reading techniques such as skimming, using subheadings and changing the speed of reading to become an effective and efficient reader.
- Summarize what is read.
- Analyze media messages such as advertisements and editorials.
- Select materials and read independently for extended periods of time.

Listening
- Use listening skills to gain information in interviews.
- Recognize propaganda techniques.
- Participate and respond appropriately in activities that involve listening such as discussions and oral presentations.
- Increase vocabulary through listening experiences.

Speaking
- Use speaking skills in interviews to gain information.
- Adjust language and speak in a variety of forms (example: formal or informal) according to audience and purpose.
- Revise and edit final speeches for effectiveness.
- Plan and present information creatively using drama techniques and/or video.
- Examine and determine validity, bias and opinion in what is heard.
- Ask questions to clarify perspectives and viewpoints in discussions and interviews.

Writing
- Use techniques to develop and organize ideas before and during writing.
- Develop narrative (telling about), expository (explaining), persuasive and technical writing pieces.
- Select vocabulary to make writing clear and interesting.
- Revise writing for word choice and clarity, details, consistency, logical order and smooth transitions from one idea to another.
- Edit final copies for grammar, spelling, capital letters, punctuation and form.
- Select and write in a variety of forms including personal notes and letters, research, poetry, stories, essays, articles, plays, etc.
- Write for extended periods of time.
- Use available technology (such as word processing).

Research
- Continue to use knowledge learned about conducting research to plan and prepare written and oral research presentations/projects.
- Combine and organize information from several sources and communicate it clearly to others.
- Compare information sources for research projects.
- Combine research from a variety of sources including electronic sources.

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.
- Use word processing skills to produce a document.
- Create spreadsheets to enter and analyze information and create charts and graphs.
- Use databases.
- Use publishing software, scanners and graphics.
- Use local and worldwide communication systems.
- Develop home web pages.
- Have a basic understanding of computer processing, storing, retrieval and transmission of data.
- Use computers for various purposes.

Sample PACT Question
From The Cartoonist
by Betsy Byars

"Alfie Mason, come on down!"

Alfie didn’t answer. He was drawing a comic strip called "Super Bird." In the first square a man was scattering birdseed from a bag labeled "Little Bird Seed." In the next square little birds were gobbling up the seeds.

"Well, supper’s ready."

"Alfie?” his mom called again.

"I’m busy, Mom. I’m studying."

"Well, supper’s ready."

"Oh."

"Come down right now."

"I am. I just want to get my papers in order. If I leave them in a mess, sometimes I can’t...” He trailed off.

He now had two strips for his calendar. “Super Bird” and “Super Caterpillar.” He didn’t know which he liked best. He looked from one to the other, comparing them.

In the first square of "Super Caterpillar,” a giant caterpillar was happily eating New York City. In the second square he was happily eating New York State. In the third square he was happily eating the world. In the last square, he was unhappily falling through space, his stomach a big round ball. Alfie was especially pleased with the expression in Super Caterpillar’s eyes as he tumbled helplessly through space.

"Alfie!” his mother called loudly. Alfie knew she was at the foot of the ladder now. She rattled the ladder as if she were trying to shake him down. “I’m coming up here and pull you down by the ear if you don’t come this minute.”

"I’m coming."

He got up quickly and turned his papers face down on the table. He started for the ladder that led downstairs.

Alfie and his family had been living in this house for seven months and, when Alfie had first seen it, he had thought of that old rhyme about the crooked man who lived in a crooked house. Nothing about...
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.
- Make inferences and predictions based on prior knowledge and observable patterns, and discriminate between observations, inferences and predictions.
- Design and conduct scientific investigations, identifying the independent, dependent and controlled variables and collect, record and organize data.
- Arrange data in tables, graphs and diagrams, analyze and interpret using computer hardware and software, and review, summarize and communicate information to show cause-effect relationships.
- Use mathematical thinking during investigations.
- Identify and implement the four stages of problem solving: identify the problem, design a solution or product, implement the design, and evaluate if the design meets the needs of the identified problem.
- Research contributions people have made to science and technology, and investigate the relationship between science and technology.
- Investigate and describe factors that affect technological design, risk versus benefit factors and constraints on technological designs.

Life Science
- Investigate the diversity and adaptations of organisms over time; determine the factors that contribute to a species becoming extinct and examine ways to prevent the extinction of a species.
- Examine how natural selection increases population variability.
- Investigate fossils to explore how life and environmental conditions have changed over time.
- Investigate the use of technology in the study of rocks and fossils to identify their age, type and formation.
- Investigate the geologic time scale.

Earth Science
- Investigate, describe and compare the components of our solar system.
- Describe the sun's atmosphere, energy and effects on the earth.
- Examine and explain the effect of the sun and moon on tides.
- Examine the role of gravity in keeping the components of our solar system in orbit.
- Understand the relationships among the sun, moon and Earth.
- Compare and contrast the contributions of Copernicus and Galileo.
- Identify and describe the structure of the Earth and investigate major geologic events (earthquakes and volcanoes).
- Investigate the rock cycle and classify and identify common rock types and minerals that form the Earth.
- Describe the geologic history of South Carolina and the formation of the major landform regions according to the geologic time scale.
- Investigate and explain the theory of plate tectonics.

Physical Science
- Investigate the motion of objects (speed, velocity, acceleration and momentum).
- Investigate Newton's Laws of Motion.
- Investigate and analyze space explorations.
- Investigate the properties, behavior and uses of light.

Sample PACT Question
Halley's Comet comes near the Earth every 76 years. Why can the time this comet passes near the earth be accurately predicted?
A. The comet can be seen as it approaches.
B. The comet wanders through the sky.
C. The comet has a fixed orbit about the earth.
D. The comet is a fixed point in the sky.
E. The comet has a fixed orbit about the sun.

Answer E. The comet has a fixed orbit about the sun.

Activities:
Have your child:
- Research an extinct plant or animal and why or how it became extinct.
- Create a fossil collection (fossils can often be found on beaches and in quarries).
- Make a model of the solar system, a volcano or the Earth's layers.
- Go night-sky gazing to observe and discuss the phases of the moon, changes in the position of constellations from season to season, and watch for meteors and comets.
- Start a rock or mineral collection and create a field guide to identify the samples.
- Conduct Internet research or visit the local library and research the contributions of Copernicus and Galileo.

Books:
- Brewer, Duncan. Planet Earth.
- Heinlein, Robert. Have Spacesuit—Will Travel.
- Levy, Matths and Salvadori, Mario. Earthquake Games.
- Stacy, Tom. Earth, Sea, and Sky.

Websites:
- National Parent Information Network — www.npin.org
- South Carolina ETV's Resources for Teachers, Students and Parents — www.knowitall.org
- The Discovery Channel Online — www.discovery.com/online.html
- The Smithsonian Institution — www.si.edu
- Virtual Solar System — www.nationalgeographic.com/solarsystem
History: Time, Continuity and Change

- Discuss the nature, challenges and contributions of ethnic and religious groups, including African-American and Native American cultures and women, in the life of South Carolina and United States from early settlements to 1900.
- Identify the influence of physical geography and cultural expressions of South Carolina and the U.S. from early settlements to 1900.
- Describe life in the Americas before the arrival of Europeans and Africans, and the consequences of first contact.
- Compare and contrast how Europeans developed political, economic and social institutions in South Carolina and other colonies.
- Explain ways in which South Carolina and the American colonies addressed the labor shortage, including slavery.
- Examine the political and social differences between colonists and England, the causes and sequence of the American Revolution and the contributions of South Carolinians.
- Describe the issues related to the ratification of the Constitution.
- Identify major domestic and foreign issues and key figures of early presidencies through the Antebellum Period.
- Explain the development of nationalism at home and in foreign affairs.
- Describe the impact of the revolutions in energy, manufacturing and transportation.
- Compare and contrast economic systems and reform movements in the North and South prior to the Civil War.
- Examine the tensions related to westward expansion including opposition to slavery and the Indian removal.
- Describe the causes, sequence and key figures of the Civil War and Reconstruction era, and the effects on South Carolina and the United States.
- Describe the effect of industrialism, immigration and migration on urban life in South Carolina and the U.S.
- Examine the rise of the Women's Suffrage Movement.
- Analyze the end of the frontier and the damage to Native American culture.
- Describe the emergence of Populism and American imperialism.

Government/Political Science: Power, Authority and Governance

- Compare and contrast South Carolina and United States constitutional governments.
- Explain the factors that have helped shape American democracy, including historical, geographic, social, economic, shared political values and political parties and groups.
- Describe how public policy is formed and carried out at all levels of government.
- Explain how one becomes a citizen of the United States.
- Identify the factors that promote the operation of American democracy including rights, responsibilities, leadership and service.
- Explain how Americans can monitor and influence politics and governments.
- Explain the struggles by ethnic and religious groups, including African Americans and women.

Geography: People, Places and Environments

- Make and use maps, globes, graphs, charts and models to illustrate and analyze physical and cultural features in South Carolina and the United States.
- Explain how people interacted with their environment to date in South Carolina and the U.S., and effected change through migrations.
- Analyze the role of technology development in shaping economic, cultural and political regions.

Economics: Production, Distribution and Consumption

- Describe division of labor and how free enterprise provides goods and services.
- Compare different production methods and the impact of technological change.
- Provide examples of private property, free enterprise, competition and profit.
- Describe the borrowing and lending functions of banks.
- Explain collective bargaining.
- Explain inflation and recession and their effect on the value of money.
- Describe the effect of fiscal policy on the economy.
- Identify major sources of income and expenditures of all levels of government.

Sample PACT Questions

PACT questions are not available for distribution at this time.

Activities:

- Have your child:
  - Label sites of Native American lands, important settlements, colonies and battles on a map.
  - Make flashcards of important people and their role in the settlement of the U.S.
  - Tour the State Capitol in Columbia.
  - Visit and interview a state member of Congress or General Assembly.
  - Visit historical museums such as the State Museum.
  - Visit settlement, Revolutionary War and Civil War sites within South Carolina.
  - Watch historical videos on Native Americans, settlement, Revolutionary War and Civil War.

Books:

- King, David C. First Facts About U.S. History.
- McKissack, Patricia C. and McKissack, Fredrick. Rebels Against Slavery.
- Miller, Marilyn. Words that Built a Nation.
- Perl, Lila. It Happened in America.
- Sandler, Martin. Presidents.
- Thomas, Dr. David Hurt and Pendleton, Lorain. Native Americans.
- Series: Indians of Native America and A History of Us.

Websites:

- American Local History Network - www.alhn.org
- National Archives and Records Administration - www.archives.gov
- North by South - www.northbysouth.org
- Public Broadcast System - www.pbs.org
- Smithsonian National Museum of American History - www.americanhistory.si.edu
- South Carolina Department of Education - www.scredu.state.sc.us
this house was straight. It had started as two rooms and then
another room had been added. A kitchen had been made from
the back porch. The roof was three different colors. The doors were
crooked and so were the windows. The floors slanted. If you set a
ball on the floor, it would roll to the wall. The house had been built
by three different men, none of whom had ever had a lesson in
 carpentry. The only thing Alfie liked about the house was the attic. That was
his. He had put an old chair and a card table up there, and he
had a lamp with an extension cord that went down into the living room.
Nobody ever went up but Alfie. Once his sister, Alma, had started
up the ladder, but he had said, “No, I don’t want anybody up there.”
She’d paused on the ladder. “Why not?”
“Because...” He had hesitated, trying to find words to express his
meaning. “Because,” he said finally, “I want it to be mine.”
Alma had nodded. She understood how important it was to
have things of your own because their mother used everything of
Alma’s from her cosmetics to her shoes.
Now Alfie closed the trap door, easing it down because it was
heavy. He climbed down into the living room.
“I don’t know what you do up there,” his mom said, watching him.
“I study.”
“Well, it’s not healthy - no windows, no air. I keep expecting you
to smother. Mr. Wilkins has an old window in his garage. Maybe
I could get him to...”
“I like it just the way it is,” Alfie said quickly.

1. Describe Alfie’s personality in the chart below by
listing three words or phrases that tell what he is like.

<table>
<thead>
<tr>
<th>What Alfie is like</th>
<th>How I know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

Activities:
- Read the same book your child is reading and
  have a book talk with your child.
- Take your child to a movie or play.
- Compare and contrast movies and plays to
  books read.
- Read editorials in the newspaper. Determine the
  writer’s bias or slant.
- Encourage your child to keep a journal.
- Engage in written conversations with your child.
- Read and follow directions to put something together.
- Encourage your child to write letters or send email
to family and friends.
- Use skimming and/or scanning techniques when reading.
- Reward your child with books or a journal.
- 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:
- Bloor, Edward. Tangerine.
- Coman, Carolyn. What Jamie Saw.
- Paulsen, Gary. My Life in Dog Years.

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
- Salt Lake County Library – www.slco.lib.ut.us
- Surfing The Net with Kids –
  www.surfnetkids.com
- A+ Research and Writing –
  www.ipl.org/teen/aplus
- 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

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