

PARENT AND STUDENT GUIDE

Fifth Grade Concepts and Skills



Prepared by:
Department of Curriculum and Instruction

AMESSAGEFROMTHESUPERINTENDENT

Dear Parents,

Welcome to another wonderful year of teaching and learning in Norfolk Public Schools! We are excited about joining with you to educate all students to be successful, productive contributors to society. We strive for all students to become powerfully literate. We have developed this parent guide to serve as a tool for you to stay involved in the learning process, and to assist you at home in strengthening your child's knowledge and skills in the core academic content.

This guide contains the state and local standards of learning in English, mathematics, science and history/social science. At the end of the guide, helpful hints for home are provided for you to use to enrich, enhance and strengthen your child's knowledge and skills in the various contents. Additionally, a calendar of important school dates is provided on the NPS website to help you keep track of holidays, early release days, parent conference day, and other important information.

Please use this guide at home as you partner with us in delivering a rigorous academic program to enable all students to become powerfully literate. If you need any assistance or additional ideas on how to use this guide or if you need other assistance with your child's education please contact your school. Finally, I look forward to working with you and the staff of Norfolk Public Schools to provide powerful teaching and learning opportunities to ensure the academic success of all of our students.

Sincerely,



Dr. Melinda J. Boone
Superintendent of Schools

What We Believe

The mission of Norfolk Public Schools, the cornerstone of a proudly diverse community, is to ensure that all students maximize their academic potential, develop skills for lifelong learning and are successful contributors to a global society, as distinguished by:

- Courageous advocacy for all students
- Family and community investment
- Data-driven personalized learning
- Strong and effective leadership teams
- Shared responsibility for teaching and learning
- Access to rigorous and rewarding college and career readiness opportunities

Board & Division Priorities

- Ensure full accreditation
- Increase academic achievement of all students
- Improve climate, safety & attendance
- Become a School Board of Distinction
- Promote Norfolk Public Schools to reflect outstanding accomplishments of staff, teachers and students
- Develop and coordinate a capital improvement plan for facilities and technology to enhance teaching and learning
- Attract, retain, and help to develop strong academic families and highly qualified teachers and staff

ENGLISH

In SPEAKING, LISTENING, AND MEDIA LITERACY, your child will:

- Listen, draw conclusions and share responses in group discussions.
- Summarize information gathered in group activities.
- Interpret speaker's mood, tone, purpose, and point-of-view.
- Use non-verbal gestures and facial expressions to support verbal message.
- Use language and style appropriate to audience, topic, and purpose.
- Determine appropriate content for audience.
- Organize content sequentially around major ideas.
- Incorporate visual media to support the presentation.
- Identify the characteristics and effectiveness of a variety of media messages.

In READING/LITERATURE, your child will:

- Use knowledge of roots, affixes, synonyms, antonyms, and homophones.
- Use context to infer correct meanings of unfamiliar words.
- Read and demonstrate comprehension of a variety of literary forms.
- Describe the relationship between text and previously read materials.
- Describe character development in fiction and poetry.
- Describe the development of plot and how conflicts are resolved.
- Describe the characteristics of different types of poetry.
- Describe how vocabulary and style contribute to selections.
- Use text organizers such as type, headings, and graphics to predict and categorize information.
- Locate information to support opinions, predictions, and conclusions.
- Identify signal words to determine text structure.
- Identify cause and effect relationships.
- Prioritize information according to purpose of reading.
- Understand fact and opinion.

- Recognize main idea and supporting details of fiction and nonfiction selection.
- Ask and answer questions.
- Use reading strategies and fix-up strategies.
- Recognize similarities and differences among selections.
- Activate relevant, prior knowledge.

In WRITING, your child will:

- Write for a variety of purposes (describe, inform, entertain, and explain).
- Choose planning strategies for various writing purposes.
- Organize information appropriately.
- Use specific vocabulary effectively.
- Vary sentence structure and revise writing for clarity.
- Edit final copies for grammar, capitalization, spelling, and punctuation.
- Use topic sentences that focus on a central idea.
- Maintain a consistent point-of-view.
- Create voice and tone.
- Revise by deleting, adding, and combining information.
- Indent.
- Use appropriate transition words.
- Use transition words to connect ideas, sentences, and paragraphs.
- Use pronouns correctly.
- Use capital letters and punctuation correctly including abbreviations.
- Use quotation marks around dialogue.
- Spell frequently used and common words correctly.
- Use rubrics to self-assess writing.
- Publish in a variety of forms.
- Use colons with lists.
- Write multi-paragraph compositions.
- Use computers to develop, revise, and publish compositions.

In RESEARCH, your child will:

- Collect information from multiple resources including online, print, and media.
- Organize information presented on charts, maps, and graphs.
- Use technology as a tool to research, organize, evaluate, and communicate information.
- Avoid plagiarism.

MATH

In NUMBER SENSE, your child will:

- Read, write, model, and identify the place values of decimals through thousandths.
- Round decimals to the nearest tenth, hundredth or whole number.
- Compare two decimals through thousandths using the symbols $<$, $>$, and $=$.
- Compare and order fractions having like and unlike denominators using the symbols $<$, $>$, and $=$ (denominators of 12 or less).
- Compare and order whole numbers, decimals, and fractions using various models, illustrations, and other representations.
- Relate fractions to decimals for halves, fourths, fifths, eighths, tenths and twelfths.
- Describe the characteristics of prime/composite numbers and odd/even numbers.

In COMPUTATION AND ESTIMATION, your child will:

- Solve single-step and multistep problems involving addition, subtraction, multiplication, and division with and without remainders of whole numbers.
- Find the sum, difference, and product of two numbers expressed as decimals through thousandths, using paper and pencil, estimation, mental computation, and calculators.
- Add and subtract fractions and mixed numbers through twelfths having like and unlike denominators (with renaming-answers expressed in simplest form).
- Find the value of numerical expressions, using the order of operations.
- Use estimation to determine reasonableness of an answer.

In MEASUREMENT, your child will:

- Classify and describe the diameter, radius, circumference, and chord of a circle.
- Determine the perimeter of a polygon and area (square units) of a square, rectangle, and right triangle.
- Develop a procedure for finding volume using manipulatives.

- Measure length to the nearest eighth inch or mm.
- Use appropriate units to accurately measure weight, temperature, and liquid volume in U.S. Customary and metric units.
- Determine elapsed time in hours and minutes within a 24-hour period.
- Measure and draw acute, right, and obtuse angles to the nearest degree.

In GEOMETRY, your child will:

- Classify angles and triangles.
- Identify, describe, and compare properties of plane figures
- Investigate and describe dividing and subdividing plane figures

In PROBABILITY AND STATISTICS, your child will:

- Determine the number of possible outcomes by constructing a sample space from a list, chart, or tree diagram.
- Collect, organize, and display data in a variety of graphs (bar, line, circle, stem and leaf, and line plots) and label graphs properly.
- Determine the range, mean, mode, and median for a set of data.

In PATTERNS, FUNCTIONS, AND ALGEBRA, your child will:

- Analyze and describe the structure of patterns in tables, graphs, number sentences, and within geometric objects.
- Investigate the concept of variable
- Write an open sentence, using a variable to represent a given mathematical relationship.
- Model one step linear equations with one variable
- Create and use simple equations to solve a word problem with missing information.
- Investigate and recognize the distributive property of whole numbers, limited to multiplication over addition using diagrams and manipulatives.

SCIENCE

In INVESTIGATION, REASONING AND LOGIC, your child will:

- Estimate the length, mass, and volume of objects in metric units using proper tools.
- Collect, record, analyze and communicate data using proper graphical representations and metric measurements.
- Make predictions using patterns from collected data.
- Classify rocks, minerals and organisms using classification keys.
- Develop an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations.
- Make estimates and accurate measurements of elapsed time using proper tools.
- Form hypotheses from testable questions.
- Identify independent and dependent variables and constants in an experimental situation.
- Construct models to clarify explanations and demonstrate relationships.

In FORCE, MOTION AND ENERGY, your child will:

- Investigate the transmission of sound and how it is used in a method of communication.
- Differentiate between vibration, compression, wavelength, frequency and amplitude.
- Investigate the ability of different media (solids, liquids, and gases) to transmit sound.
- Analyze a wave diagram and identify the wavelength, crest and trough.
- Investigate the basic characteristics of visible light and how it behaves.
 - Refraction vs. reflection
 - The visible spectrum
 - Behavior of light when it comes in contact with opaque, transparent, and translucent surfaces

In MATTER, your child will:

- Differentiate between the phases of matter (solids, liquids, and gases).
- Investigate the effect of temperature on the phases of matter.
- Distinguish between atoms, elements, molecules, and compounds.
- Distinguish between mixtures and solutions.
- Construct and interpret models of atoms and molecules.

In LIVING SYSTEMS, your child will:

- Differentiate between plant and animal cell structure and function.
- Classify living things based on physical characteristics, body structures, and behavior of the organism.
- Investigate traits of organisms that allow them to survive in their environments.

In EARTH/SPACE SYSTEMS, your child will:

- Investigate the characteristics of the ocean environment.
- Investigate the geological characteristics of the ocean.
 - Continental shelf, slope, and rise
- Investigate the physical characteristics of the ocean.
 - Depth, salinity, and major currents
- Investigate the biological characteristics of the ocean.
 - Ecosystems
 - Ocean food webs

In EARTH PATTERNS, CYCLES AND CHANGE, YOUR child will:

- Investigate the changing earth surface.
- Identify various rock types.
- Investigate the rock cycle and how transformations between rocks occur.
- Relate earth history to fossil evidence.
- Investigate and create models of the Earth's interior.
- Investigate changes in the Earth's crust due to plate tectonics (earthquakes and volcanoes).
- Investigate the effects of weathering and erosion.
- Investigate human impact on the earth's surface

HISTORY/SOCIAL SCIENCE

In HISTORICAL CONNECTIONS, your child will:

- Study Virginia's early exploration, settlements, and cultural developments.
- Identify different perspectives that led to major conflicts (e.g., Revolutionary War, Civil War).
- Describe the contributions of various ethnic and cultural groups in Virginia's history.
- Explain how Virginians played an active role in the colonists' struggle for independence.
- Understand how conflicts over states' rights and slavery led to the Civil War.
- Identify Virginia's role in the fighting of the Civil War.
- Understand that life for Virginians was difficult during Reconstruction.
- Recognize that the practice of segregation had a significant impact on life in Virginia.
- Identify prominent Virginians who have made contributions to improve life in the United States.
- Discuss changes that have occurred in Virginia in the 20th century.

In ECONOMIC UNDERSTANDING, your child will:

- Describe how different areas of Virginia are noted for their unique economic contributions.
- Explain the role of money, banking, saving, and credit in colonial Virginia.
- Recognize specialization within the major regions of Virginia.
- Understand that taxes are collected by the government to pay for services.
- Describe the impact of transportation on the economic development of the state.
- Identify the resources and products that Virginia exports.

In CITIZENSHIP, your child will:

- Understand that the competing interests of people and government can lead to conflict.
- Discuss the important documents that established basic freedoms for Virginians and Americans.

- Explain how the ideas of Virginians were the basis for the principles of the new government of the United States.
- Explain why citizens must actively participate in our government.
- Recognize the significant impact the federal government has on the economy of Virginia.

In GEOGRAPHIC AWARENESS, your child will:

- Locate and identify on maps and globes Norfolk, Virginia, the United States, and other places important to the development of Virginia.
- Recognize cultural changes as they relate to the history and geography of Virginia.
- Use maps to locate the major regions and physical features of Virginia.
- Identify lifestyle changes as Virginia moved from an agricultural to an industrial society.

In HISTORY/SOCIAL SCIENCE SKILLS, your child will:

- Arrange in chronological order major events in Virginia's history from 1607-1877.
- Distinguish fact from fiction by comparing primary sources.
- Interpret and use timelines, graph, charts, pictures, and political cartoons.
- Explain cause and effect relationships.

Helpful Hints for Home

English

- Set aside a time and place for your child to read for at least 20-30 minutes a day.
- Make sure your child has a large supply of fiction and non-fiction materials he or she can read.
- Discuss materials your child is reading.
- Make time to read together as a family.
- Help your child write letters to friends and relatives.
- Encourage your child to keep a journal.
- Make “to-do” lists with your child.
- Enjoy and discuss your child’s writing.

Math

- Use sports statistics or weather information in the newspaper or from television and have your child calculate averages or sequence numbers. Ask questions like which temperature was higher, what was the lowest score, or how many points did the winning team win by?
- Have your child do a number search. The object is to look for numbers around you: on cars, buses, houses, signs, etc. Talk about the numbers your child has collected (what was the largest number found, are there any odd numbers, what would you get if you added/subtracted two of the numbers, etc.).
- Provide your child with toys and games that require thinking, problem solving, and are challenging (such as jigsaw puzzles, building blocks, trivia games, Rubic's cube, and various computer games).
- Give your child various opportunities to create graphs (line graphs, bar graphs or picture graphs). For example, give your child 20-30 pennies and have him sort and line them up by date and tell you which date has the most/least/same. Also save old mail envelopes and have your child cut out and paste (in a bar graph) all the stamps that are the same (again talk about which one is more/less/same).

- Have your child use a deck of cards to learn about the relationships of numbers (more/less) and about subtracting, adding, multiplying, and dividing numbers. For example, remove all face cards from a deck (kings, queens, jacks) and divide the remaining cards between two people. Place the cards face down. Each player turns over one card and makes a comparison statement: Is it more or less? How much more? How much less? Added together they would equal _____. Subtracted they would equal _____. Multiplied they would equal _____. Divided they would equal _____.

Science

Have your child:

- Draw a sound wave and label the parts.
- Explain how sound is transmitted.
- Identify examples of opaque, transparent, and translucent objects. Shine a flashlight on each of the objects and describe what is observed.
- Compare and contrast cells and identify their major parts and functions.
- Classify organisms using their characteristics
 - ⊖ Plants—vascular and nonvascular
 - ⊖ Animals—vertebrates and invertebrates
- Draw and label a diagram of the ocean floor.
- Explain why volcanoes erupt and earthquakes are formed.
- Explain the effects of weathering and erosion and how humans can present their impact.
- Investigate how a change in temperature affects the phases of matter.

Social Science

- Share your history. “I remember when...”
- Involve your child in comparison shopping at a grocery or department store.
- Assist your child in participating in a community service project.
- Visit museums, government buildings, national parks, and other historic sites.
- Make globes, maps, and the Internet available to your child and use every opportunity to refer to them.
- Read with your child about people and events that have made a difference in the world and discuss the readings together.



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