



# STAFFORD COUNTY PUBLIC SCHOOLS

## Curriculum Overview Grade 4

### Course Description:

The fourth-grade student will communicate orally in large- and small group settings. Students will read classics and contemporary literature as well as materials related to the content areas. Students will develop and apply research and study skills. Mathematics instruction will emphasize problem solving, communicating, reasoning, making connections and using representations. Scientific investigations are conducted with an emphasis on analyzing and presenting data. Social studies instruction will focus on people, places, and events in Virginia history and an overview of Virginia today. Students will develop skills and concepts in art and music with study in art history and world cultures. Students will create, produce, and respond to their work and the work of others. Health will emphasize basic areas such as first aid, disease control and prevention, and bicycle/vehicle safety. Physical education will continue to refine basic movement and sport skills as used in sports and fitness activities.

### Essential Knowledge and Skills/Processes:

#### READING/ENGLISH:

- Use effective oral communication skills in a variety of settings
- Use grammatically correct language and specific vocabulary to communicate ideas
- Collaborate with diverse groups across the curriculum
- Create oral presentations and reports both collaboratively and independently using language and style appropriate to the audience, topic, and purpose
- Differentiate between auditory, visual, and written media messages
- Identify characteristics of various media messages
- Expand vocabulary by finding meanings of unfamiliar words using knowledge of word origins, synonyms, antonyms, homonyms, prefixes, suffixes, and multiple meanings in context
- Read a variety of fiction and nonfiction, including poetry, biographies and historical fiction
- Demonstrate comprehension of text by identifying: author's purpose, story elements and language choice that support author's purpose, main idea and supporting details, problem and solution
- Use reading strategies throughout the reading process to monitor comprehension (predicting, visualizing, making connections using prior knowledge, questioning, inferring, summarizing)
- Use text structures (type/font, title, headings, graphics, captions) to make predictions and set a purpose for reading
- Use prior knowledge to make connections with previously read texts, draw conclusions, distinguish between cause and effect, and fact and opinion
- Read fluently with expression and accuracy
- Write cohesively for a variety of purposes ( narrative and expository) using a variety of pre-writing strategies
- Write two or more related paragraphs with clear topic sentences, focusing on the main idea with supporting details that elaborate the main idea
- Revise and edit writing including planning with purpose, awareness of audience, and appropriate sequence
- Edit writing for: spelling, capitalization, punctuation (including commas in a series, dates, addresses), grammar (including subject-verb agreement, noun-pronoun agreement, appropriate adjective and adverb usage, singular possessives)
- Demonstrate comprehension of information resources to research a topic by: constructing questions, collecting

information from multiple sources (online, print, and media)

- Use technology as a tool to organize, evaluate, and communicate information
- Give credit to sources used in research
- Understand the difference between plagiarism and summarizing in your own words

#### MATHEMATICS:

- Explain and represent mathematical ideas orally and in writing
- Organize and communicate mathematical thinking.
- Identify, compare, order, and round whole numbers thru millions and decimals thru thousandths
- Compare and order fractions and mixed numbers and represent equivalent fractions
- Identify the division statement that represents a fraction
- Estimate and solve single-step and multi-step problems involving addition, subtraction, multiplication, division
- Determine common multiples and factors
- Solve single- and multi-step practical problems involving addition and subtraction with fractions and decimals
- Estimate, measure, identify equivalent measures for weight/mass, length, and liquid volume
- Determine elapsed time in hours and minutes
- Identify and describe points, lines, line segments, rays, and angles, endpoints and vertices, intersection, parallelism and perpendicularity
- Investigate congruence of plane figures and recognize images of figures resulting from geometric transformations
- Define polygon/identify polygons with 10 or fewer sides
- Predict likely outcomes and represent probability as a number between 0 and 1
- Collect, organize, display, and interpret data from a variety of graphs
- Recognize, create and extend numerical and geometric patterns
- Recognize and demonstrate the meaning of equality
- Investigate and describe the associative property for addition and multiplication

#### SCIENCE:

- Plan and conduct investigations where measurements are made, hypotheses are formed, data is graphed and

analyzed, variables are recognized, and conclusions are drawn

- Investigate characteristics and interaction of moving objects
- Study the characteristics of electricity and types of circuits
- Investigate basic life processes of plants including anatomy, reproduction, and photosynthesis.
- Observe the roles of plants and animals in ecosystems, including energy flow, niches, and the influence of humans
- Investigate and measure weather phenomena such as air pressure, temperature, fronts, clouds, and the meteorological tools used in data gathering and weather prediction
- Investigate the relationships among the Earth, moon, and sun including their movements, relative size, position, and age, the phases of the moon, the seasonal changes
- Investigate important natural resources of Virginia, including the concept of a watershed, plants and animals, mineral and energy resources

#### **SOCIAL STUDIES:**

- Continue to use maps, tables, graphs, and charts to study Virginia and the original thirteen colonies
- Study archaeology and development of American Indian cultures in VA, as well as the current tribes
- Study the settlement and expansion of the regions of Virginia and their political and economic connections to England from 1620 to present
- Recognize the relative importance of Virginia within the context of Colonial America
- Understand the interactive forces leading to the French and Indian War
- Explain the causes and effects of British taxation and the resulting American Revolution, and VA's role in the Revolution
- Recognize the contributions of colonists to the establishment of the U.S. Constitution and Bill of Rights, and the success of the new national government
- Explain the causes of the Civil War and the role of Virginians, including major battles and the creation of West Virginia
- Trace the social, political, and economic changes in Virginia from Reconstruction (1865)-20<sup>th</sup> century (1900)
- Trace the history of Virginia in the 20<sup>th</sup> century, including the study of segregation and the Civil Rights Movement
- Use primary sources to analyze historical events
- Use technology to enhance study of historical events

#### **PHYSICAL EDUCATION AND HEALTH:**

- Identify the basics of nutrition including the identification and function of nutrients, food guide, recommendations for safe food handling and preparation
- Recognize the benefits of resolving conflicts using non-violent methods
- Recognize the appropriate response to different types of stress
- Identify safety behavior with cars, bicycles, recreational vehicles and activities
- Recognize proper behaviors for preventing and controlling disease.

- Recognize the importance of keeping schools and homes free of harmful substances.
- Identify the social, emotional, and physical consequences of chemical dependency including: tobacco, alcohol, and illegal drugs.
- Understand the potential dangers associated with water and the importance of water safety.
- Describe the main functions of the digestive system.
- Describe how a healthy lifestyle benefits the digestive system.
- Recognize an emergency situation and respond appropriately.
- Perform effective and efficient movement skills, including: kicking a moving ball, catching, bouncing a ball, basketball dribble while moving, striking off a tee, underhand volleyball serve, and fitness tests.
- Demonstrate respect for others and good sportsmanship.
- Understand the importance of setting realistic nutrition-related goals.
- Understand the relationship between nutrition and fitness.

#### **FINE ARTS:**

- Recognize and identify two dimensional from three dimensional form
- Identify visual from tactile texture
- Use mixed media in a controlled manner
- Practice safety procedures
- Identify and use positive and negative space
- Apply color theory – warm, cool, tints and shades
- Begin using preliminary sketches for project planning
- Understand how perspective creates illusion of depth
- Identify examples of Colonial American music, arts and crafts
- Identify specific paintings done by Stafford artists Palmer C. Hayden and Gari Melchers
- Understand art and music as a universal language
- Perform an American folk dance or square dance

#### **MUSIC:**

- Read and clap rhythms from specified written notation
- Distinguish between meter in two, three and four
- Sing songs with counter melodies, descants and obligatos
- Play the soprano recorder
- Sing all solfege syllables on pitch and using Kodaly hand signs
- Identify introduction, coda and first and second endings.
- Understand and distinguish between major and minor modes
- Recognize and apply the dynamic markings pp, p, mp, mf, f, ff; the tempo markings allegro, andante, moderato and largo; and the accent mark
- Expand knowledge of orchestra instruments

---

**Resources:**

Resources concerning the Standards of Learning for Virginia Public Schools and more can be found at the Virginia Department of Education website: <http://www.doe.virginia.gov> Helpful resources at this site include subject and grade level Standards of Learning, Curriculum Frameworks, and Scope and Sequence documents.

Additional resources are listed below:

**Reading**

- <http://www.readaloudva.org/>
- <http://www.ed.gov/parents/read/resources/readingtips>
- <http://www.nifl.gov/partnershipforreading/>

**Math**

- The Mathematics Leadership Team is made up of a Math Lead Teacher or a Math Specialist from each school, the Elementary Mathematics Coordinator, and the Mathematics Supervisor.