



North
Cross
School

2018-19 Program of Study

Early Childhood Program through Twelfth Grade



North Cross School's academic program is designed to prepare our students for success in college, career, and citizenship. Our teachers are skilled, our facilities support the goals of the program and our thoughtfully constructed, comprehensive, and rigorous curriculum reflect the school's mission: North Cross School is an independent, nonsectarian, college-preparatory school that serves children from early childhood through twelfth grade. North Cross provides a rigorous academic curriculum, competitive with the best college-preparatory schools in the Commonwealth of Virginia. While we explicitly recognize the importance of intellectual development and academic achievement, we also strive to promote personal integrity, empathy, and responsibility to self and community. Through this, our graduates will act as leaders in the local and global communities, persons of intellectual and moral courage, and scholars in the service of others.

Early Childhood Program: Level One

The first level class in the Early Childhood Program provides children, primarily age three, with initial exposure to developing language, math, social and emotional readiness skills using a hands-on approach. This half-day program contains weekly units on many topics, including the senses, safety, and different cultures. These topics are experienced through literature, art, crafts, cooking, science experiments, music, and games. Montessori materials are used along with many other hands-on materials. The program is enriched with field trips to Mill Mountain Zoo and an apple farm.

Prerequisites

- Must turn three by the first day of school
- Must be fully toilet-trained

Language Arts

- Introduction of uppercase letters and their sounds, vocabulary development, rhyming, opposites, matching, sorting, classifying, and beginning sequencing
- Exposure to classic children's literature and theme-related stories
- Exercises in phonological and print awareness as well as oral language
- Macmillan/McGraw-Hill Little Treasure series

Mathematics

- Skills: rote counting, counting of objects, recognition of symbols, associating quantity and symbol, beginning sequencing, one-to-one correspondence, simple patterns, counting by 1's to 20, and introduction to graphing and money
- Geometric concepts teach shapes and size differences
- Incorporates Montessori materials and other manipulatives

Science

- Nature-based program studying animals, the human body, the environment, and living healthy lives
- Incorporates simple experiments and demonstrations
- Topics include: five senses, magnetism, the seasons, classification of nature objects, bugs, and magnification

Social Studies

- Discussion of current events
- Introduction of countries, oceans, and explorers
- Learn about children and customs around the world

Spanish

- Daily instruction
- Encourage children to use short commands, vocabulary, and expressions in and outside the classroom
- Focus on auditory and oral skills through incorporation through music, games, arts/crafts, and books
- Collaborate with the classroom teachers to reinforce concepts and skills but in the target language
- Explore Spanish culture

Creative Expression

- In-class activities coordinate with daily lessons
- Encourage creativity through painting, mixed media, and crafts
- Personal expression through music, movement, drama, and pretending
- Daily unit-related and alphabet-related projects, songs, and games

Music

- Two lessons per week
- Develop the sense of rhythm with hands and feet
- Basic understanding of music notation (tah, tah, ti-ti, tah)
- Sing a variety of simple songs alone and with a group, becoming increasingly accurate in rhythm and pitch
- Demonstrate an awareness of music as a part of daily life
- Learning experiences include: singing, playing instruments, listening to music, creating music, and moving to music

Sensory Motor Skills

- Montessori and other materials used to develop visual, auditory, and tactile senses
- Concepts: large/small, thick/thin, loud/soft, rough/smooth, short/long, likeness/difference
- Emphasis on concentration and fine motor coordination

Perceptual Motor Skills

- Work to develop better balance, coordination, upper body strength, flexibility, listening skills, sportsmanship, and rhythm
- Incorporates music, games, dance, and exercises with the use of balls, bean bags, rhythm sticks, and other manipulatives

Library

- Weekly lessons
- Increase appreciation of literature and introduce new vocabulary
- Identify characters in a story and describe traits, behaviors, and feelings
- Summarize plot of story, sequence of events, and cause/effect

Guidance

- Develop social-emotional awareness through active and creative lessons.
- Develop empathy skills by identifying emotions, assuming others' perspectives, and responding emotionally to others
- Learn to recognize and manage strong emotions such as frustration, excitement, disappointment, and anger
- Introduction to a three-step problem-solving model

Early Childhood Program: Level Two

The second level of the Early Childhood Program blends traditional and Montessori approaches to learning, which provides each student with strong readiness in language, math, social, emotional, and enrichment skills needed for kindergarten. Students, primarily age four, rotate between two classrooms daily. Children receive whole and small group instruction, while incorporating literature, dramatic play, arts and crafts, cooking activities, and hands-on science activities. Speakers visit throughout the year. In the spring, the classes visit Homestead Creamery and Dairy Farm. Students learn about marine mammals and adopt a dolphin named Talon from the Dolphin Research Center in Marathon, Florida.

Language Arts

- Recognition of upper case letters and sounds, lower case letters, beginning and ending sounds, short and long vowel sounds, word families, and vocabulary development
- Recognition of rhymes, opposites categories, and sequencing events
- Daily exposure to classic children's literature
- Introduction to D'Nealian Handwriting
- Macmillan/McGraw Hill *Beginnings* letter book
- Pearson's *Words Their Way: a developmental spelling, phonics, and vocabulary program*

Mathematics

- Skills: rote counting, counting objects, recognition of symbols, associating quantity and symbol, one-to-one correspondence, sequencing numbers, counting by 1's (to 100), and counting by 10's (to 100)
- Includes geometric concepts, such as pattern blocks and recreating pictures
- Incorporates Montessori materials, other manipulatives, and Everyday Mathematics Minute Math

Science

- Introduction to concepts of physical science, earth science, and life science
- Topics: the senses, signs of seasons, hibernation and migration, staying healthy, safety, weather, animals around the world, and sea life
- Lessons introduced through small group activities, songs, and poems
- Hands-on experiments in small groups or individually, with instruction from the teacher
- Scott Foresman's *Science* textbook

Social Studies

- Awareness of self, family, and the world in which we live taught through social values, historical characters, holidays, and special events
- Study of the continents and oceans
- Lessons taught through role play, music, games, arts and crafts

Spanish

- Daily instruction
- Emphasize speaking, listening, and vocabulary
- Expand, enrich, and reinforce vocabulary
- Encourage use of short commands, vocabulary, and expressions in and outside the classroom
- Focus on auditory and oral skills through incorporation of music, games, arts/crafts, and books
- Actively engage students through hands-on activities
- Collaborate with the classroom teachers to reinforce concepts and skills but in the target language
- Explore Spanish culture

Creative Expression

- In-class activities coordinate with daily lessons, including cooking and dramatic play
- Encourage creativity through painting, mixed media, and crafts

Music

- Two lessons per week
- Develop the sense of rhythm in hands and feet
- Basic understanding of music notation (tah, tah, ti-ti, tah)
- Sing a variety of simple songs with a group, becoming increasingly accurate in rhythm and pitch
- Demonstrate an awareness of music as a part of daily life
- Learning experiences include: singing, playing instruments, listening to music, creating music, and moving to music

Perceptual Motor Skills

- Gross motor development and agility through exercises, games, and creative movement
- Development of hand-eye and eye-foot coordination, balance, upper body strength, flexibility, listening skills, and rhythm
- Incorporates games, exercises, relays, stations, dance, rope jumping, climbing, and sports skills
- Swim lessons provided

Guidance

- Develop social-emotional awareness through active and creative lessons.
- Develop empathy skills by identifying emotions, assuming others' perspectives, and responding emotionally to others
- Learn to recognize and manage strong emotions such as frustration, excitement, disappointment, and anger
- Introduction to a three-step problem-solving model

Library

- Weekly lessons
- Increase appreciation of literature and introduce new vocabulary
- Identify characters in a story and describe traits, behaviors, and feelings
- Summarize plot of story, sequence of events, and cause/effect
- Begin to understand how books are organized in a library

Early Childhood Program: Level Three: Kindergarten

The kindergarten classes in the Early Childhood Program offer individualized instruction to meet the needs of each student, which contributes to readiness for the rigors of first grade. The goal is to foster independence, self-discipline, and an enthusiasm for learning. Academic skills are reinforced and enriched with Montessori activities, iPads, and field trips. Students are encouraged to explore creativity through painting, mixed media, music, and dramatic play.

Language Arts (reading, spelling, writing, grammar)

Reading skills:

- Review initial, medial, and ending sounds, vowel sounds, and rhyming words
- Blend sounds to read consonant-vowel-consonant(CVC) words
- Learn basic sight words
- Emphasis on use of complete sentences using correct pronouns
- Identification of person, place, thing, adjectives, and action words
- Incorporation of literature using well-known children's authors
- Spelling words reinforce phonics skills and handwriting
- Develop proficiency of D'Nealian Handwriting
- Journal writing
- *Words Their Way: a developmental spelling, phonics, and vocabulary program*
- Texts:
 - Macmillan/McGraw Hill Reading Series
 - Merrill Linguistic Reading Program
 - *Explode the Code (Grade 1)* Hall/Price — Educator's Publishing Service
 - *Primary Phonics* — Educator's Publishing Service

Mathematics

- Number bonds to 25
- Learn estimating, symmetry, and graphing
- Sequence, count, recognize, compare, and write numbers to 100 and beyond
- Count by 10's, 5's, and 2's
- Identify even and odd numbers and ordinal position of numbers
- Recognize different coins and count different denominations of money
- Measure with a ruler, compare weights, make patterns

- Add and subtract using simple addition and subtraction sentences with the aid of manipulatives and a number line
- Learn basic fractions and basic geometric shapes
- Practice addition and subtractions fact families through 10
- Introduction to telling time by the hour and half hour
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education

Science

- Introduction to concepts of physical science, earth science, life science, and rainforest
- Hands-on experiments, activities, and gardening

Social Studies

- Study of the students' place in the universe
- Emphasis on learning families, communities, jobs, and citizenship
- Incorporates national events such as elections, Thanksgiving, and Martin Luther King, Jr., Day

Spanish

- Daily instruction
- Emphasize oral skills, vocabulary, and an introduction to more specific cultural elements
- Encourage children to use longer commands, newly introduced vocabulary, and expressions in and outside the classroom
- Focus on auditory and oral skills through incorporation of music, games, arts/crafts, and books
- Actively engage students through hands-on activities
- Collaborate with the classroom teachers to reinforce concepts and skills but in the target language
- Explore Spanish culture

Music

- Two lessons per week
- Develop the sense of rhythm in their hands and feet
- Increase knowledge of basic music notation
- Sing a variety of songs alone and with others, independently in rhythm and on pitch
- Demonstrate an awareness of music as a part of daily life
- Introduction to the historical values of music
- Expanded use of instrument
- Learning experiences include: singing, playing instruments, listening to music, creating music, music history, and moving to music

Physical Education

- Daily
- Gain an understanding of how the body moves
- Learn to show appreciation for others and sportsmanship skills
- Develop coordination, flexibility, rhythmic movement, cardiovascular endurance, locomotor skills, spatial awareness, and basic tumbling skills
- Participate in ball handling, jump rope, and hoop skills
- Understand the importance of exercise, nutrition, and personal hygiene
- Swim lessons provided

Library

- Weekly instruction
- Practice logical self-expression
- Identify characters in a story with traits, behaviors, and feelings
- Summarize the plot of a story and its sequence of events
- Recognize similarities/differences in story setting, plot, and characters
- Begin to identify story elements in folktales
- Contrast

Guidance

- Develop social-emotional awareness through active and creative lessons.
- Develop empathy skills by identifying emotions, assuming others' perspectives, and responding emotionally to others
- Learn to recognize and manage strong emotions such as frustration, excitement, disappointment, and anger
- Introduction to a three-step problem-solving model

First Grade

First Grade builds the foundation for students to become independent readers, writers, and thinkers. The development of good work, study habits, and independence are supported throughout the year. The Fabulous First Grade Flea Market, community guest speakers, and trip to the Virginia Transportation Museum are first-grade favorites. The year culminates with a study of the landmarks of Roanoke in which each student covers a local point of interest and the entire class produces a program called “Welcome to Roanoke, Flat Stanley!”

Language Arts (reading, spelling, writing, grammar)

- Small group instruction to meet the needs for individual readers
- Word Study to build phonics, spelling skills, and recognize common word patterns & features
- Reading: picture books, chapter books, poetry, and nonfiction
- Writing: original stories with illustrations, personal experiences, factual information, persuasive writing, and journals
- Identify and use complete sentences
- Capitalization, ending marks, and contractions
- Introduction to nouns, verbs, and adjectives
- D’Nealian print and cursive writing
- Introduction to proofreading
- Weekly High Frequency Words
- Texts:
 - Pearson’s *Words Their Way*
 - Macmillan/McGraw Hill Reading Series
 - Scholastic News
 - Individualized reading supplements through leveled readers
 - Chapter books

Mathematics

- Equip students with a strong foundation in mathematics
- Introduce concepts with hands-on manipulatives, pictorial representations, then mental/abstract thinking
- Topics: number bonds, addition, subtraction, geometric shapes, measurement, time, money, and an overview of multiplication
- Emphasis on story problems and problem solving
- Special Projects: Fabulous First Grade Flea Market
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education

Science

- Introduces the skills of scientific investigation
- Nurtures each child’s natural sense of wonder
- Hands-on activities
- Scientific method through inquiry-based activities
- Special topics and projects: properties and states of matter; fossils and dinosaurs; animal habitats; the human body; plants, pollination and the environment; severe weather
- Demonstration of knowledge through collaborative projects, writing assignments, experiments, games, open-ended questioning, and written assessments

Social Studies

- Introduction to historical figures and events
- Holiday literary study on different versions of the *Gingerbread Man*
- Special topics and projects: pilgrim life, African-American history, recycling, community; economics
- Demonstration of knowledge through collaborative projects, writing assignments, games, open-ended questioning, and written assessments
- Texts: *Scholastic News*; Harcourt Social Studies: *A Child’s View*

Spanish

- Daily instruction
- Emphasis on oral skills, vocabulary, and an introduction to more specific cultural elements
- Early introduction to phonemic awareness and its relation to the written format
- Introduction to the Spanish alphabet and vowels
- Encourage children to use longer commands, newly introduced vocabulary, and expressions in and outside the classroom
- Focus on auditory and oral skills through incorporation of music, games, arts/crafts, and books
- Explore weekly cultural highlights

Art

- Weekly instruction
- Encompasses the elements of art and principles of design by experimenting with a variety of media, including acrylic, clay, colored pencil, pastels, and watercolor
- Incorporates art history into class projects
- Introduces some of “The Masters” and their works at a grade/age appropriate level

Music

- Two lessons per week
- Develop a basic ability in note reading and rhythm counting
- Emphasis on strong singing voices as well as fundamental Orff and Kodaly experiences
- Exposure to instrumental music making through mallet instruments
- Study of various music styles, including world music
- Perform in holiday concert and Dinosaur Program

Guidance

- Develop social-emotional awareness
- Develop a healthy sense of self-worth
- Practice and implement problem-solving skills.
- Learn character education through a series of active and creative lessons.

Library

- Weekly instruction
- Listen purposefully and respond appropriately
- Practice logical self-expression
- Recognize the parts of a book
- Identify the title, author, and illustrator
- Identify and describe a variety of illustration styles
- Identify characters in a story with traits, behaviors, and feelings
- Summarize and make predictions about the plot of a story, sequence of events, and cause and effect
- Participate in group discussions

Physical Education

- Daily classes
- Gain an understanding of how the body moves
- Learn to show appreciation for others and sportsmanship skills
- Develop coordination, flexibility, rhythmic movement, cardiovascular endurance, locomotor skills, spatial awareness, and basic tumbling skills
- Participate in Jump Rope for Heart and the Physical Fitness Tests
- Participate in ball handling, jump rope, and hoop skills
- Understand the importance of exercise, nutrition, and personal hygiene
- Additional recess time provided each day

Second Grade

The goal of second grade is to facilitate a love of learning and academic confidence in each student. Creative and critical thinking is emphasized while maintaining a traditional classroom environment. Our Word Study program underscores sound, pattern, and vocabulary instruction. A differentiated approach fosters a deep understanding of spelling features and connections between words on each student's instructional level. The reading block consists of a combination of whole and small group instruction. Small group instruction centers include: Read to Self, Buddy Read, Listen to Reading, Work on Writing, Word Work, Reader's Response, and Grammar. Weekly Writer's Workshops help students learn composition skills and strategies for real-world application. Studies across the curriculum incorporate intentional instruction in organization and study skills, corresponding activities through art and music enrichment, computer research, and report writing. Our large social studies unit on Africa includes field trips to the Frontier Cultural Museum and Safari Park. The core curriculum challenges each student while making learning fun.

Language Arts (reading, word study, writing, grammar)

- Incorporates weekly text selections and independent/ leveled readers for a comprehensive literacy CRAFT diet (Comprehension, Response to Text, Accuracy, Fluency, and Text Features)
- Integrates word study, context clues, and content-specific vocabulary
- Application of comprehension skills in fiction/nonfiction texts
- Evaluation of story elements, such as setting, characterization, sequence of events, main idea and details, problem/solution, making inferences and predictions
- Monthly book reports to analyze different types of literature and practice correct reading, writing, and speaking techniques
- Writing workshops, including journal writing, the writing process, and introduction of research reports with an emphasis on writer's purpose and audience
- Introduction to basic parts of speech, punctuation, and sentence construction
- Introduction to proofreading
- Differentiated, student-centered instruction facilitating literacy growth
- Texts:
 - Macmillan/McGraw-Hill Treasures series
 - *Magic Tree House* Books
 - Pearson's *Words Their Way*

Mathematics

- Topics: numbers to 1,000 (place value), addition and subtraction, length, money, and word problems
- Introduction to multiplication and division, fractions, time, tables and graphs, and geometry

- Students move through Concrete, Pictorial, and Abstract stages when problem solving
- Strong emphasis on fact fluency and mental math strategies
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education
- Sumdog computer math practice

Science

- Further development of the skills of the scientific method
- Exploration of environments, matter, motion, energy, sound, space, and technology using full, guided, and directed inquiry
- Skills include classification, inference, developing hypotheses, and conducting experiments
- Text: *Science* by Scott Foresman

Social Studies

- Emphasis on being aware of the community and to understand the responsibilities of being a good citizen by investigating a range of communities, from the classroom to the world
- Introduction to map skills and interpreting and analyzing data from graphical representations
- Introduction to local, state, and national government
- Study of the seven continents and their countries
- In-depth study of Africa, particularly the village of Binaba, located in the country of Ghana
- Social Studies: *People We Know* by Harcourt

Spanish

- Daily instruction
- Emphasis on oral skills, vocabulary, and early exploration of basic grammar components

- Review of the Spanish alphabet and vowels, along with phonemic awareness and its relation to the written format with an expansion of some elements
- Introduction to spelling through basic patterns and systematization of basic patterns
- Encourage children to use longer commands, newly introduced vocabulary, and expressions in and outside the classroom
- Focus on auditory and oral skills through incorporation of music, games, arts/crafts, and books
- Explore weekly cultural highlights

Art

- Weekly instruction
- Encompasses the elements of art and principles of design by focusing on a variety of media, including acrylic, clay, colored pencil, pastels, and watercolor
- Incorporates art history into class projects
- Introduces some of “The Masters” and their works at a grade/age appropriate level

Music

- Two lessons per week
- Develop both vocal and instrumental skills
- Build strong foundation in note reading and rhythm counting
- Teaches Orff and Kodaly methods, as well as steel pan, recorders, and ukuleles
- Exposure to music cultures from around the world
- Emphasis on African music and performance on African instruments
- Study of basic theory, music styles, and representative composers
- Performances in holiday concert, African Program, and steel drum concert

Library

- Weekly instruction
- Listen purposefully and respond appropriately
- Practice logical self-expression
- Identify and recall characters, plot, and setting
- Recognize conversation, behavior, and visual representation of story characters as clues to understanding a story
- Recognize the parts of a book
- Identify the title, author, and illustrator
- Recognize common characteristics or themes in folktales
- Use online catalog to search for books
- Locate sections of the library and identify order arrangement

Guidance

- Develop social-emotional awareness
- Develop a healthy sense of self-worth
- Practice and implement problem-solving skills.
- Learn character education through a series of active and creative lessons.

Physical Education

- Daily classes
- Develop an appreciation for others and sportsmanship skills
- Fitness activities that develop coordination, flexibility, rhythmic movement, cardiovascular endurance, locomotor skills, spatial awareness, and tumbling skills
- Play and movement activities including scooters, relays, cooperative games, fitness testing, manipulative skills, activities to encourage creative expressions, sport skills, and games
- Participate in Jump Rope for Heart and the Physical Fitness Tests
- Understand the importance of exercise, nutrition, and personal hygiene
- Water, bus and automobile, pedestrian and playground safety
- Additional recess time provided each day

Third Grade

As students enter the third grade they are capable of thinking more abstractly and applying skills across the curriculum. This enables subject content to be more complex and comprehensive. The third grade is departmentalized in reading and mathematics allowing daily in-depth instruction in both subject areas. Sectioning by teacher also occurs in science and social studies. Close communication with the second grade teachers allows for a continuous flow of instruction. The curricula are enhanced by field trips to Natural Bridge, Monticello, and Blue Ridge Institute; the Virginia landmark project and Colonial Day are highlights of the third grade experience.

Language Arts (reading, spelling, writing, grammar)

- Increased fluency and expression
- Analyze and interpret a greater variety of literature
- Reading skills: inferences and predictions, draw conclusions, identify main ideas, vocabulary, characterization, setting, and plot
- Creative and formal writing through the writing process
- Monthly book reports and creative projects
- Word Study with phonemic awareness
- Basic parts of speech, sentence mechanics, and punctuation
- Texts and literature:
 - *The World According to Humphrey*, by Betty G. Barney
 - *Punished*, by David Lubar
 - *Little House in the Big Woods*, by Laura Ingalls Wilder
 - *The One and Only Ivan*, by Katherine Applegate
 - Macmillan/McGraw-Hill Reading series (Level 4), selected short stories
 - McGraw-Hill Language Arts Today (Level 4)

Mathematics

- Emphasis on automatic recall of basic addition, subtraction, multiplication, and division facts
- Employ numeration, including understanding of number patterns and rounding
- Add and subtract multi-digit numbers using the traditional algorithm and mental math strategies
- Understand multiplication and division concepts
- Explore different units of measurement, including length, mass and weight, capacity, and area and perimeter
- Incorporate fractions, money, and telling time
- Increased emphasis on word problems by using a part/whole model and bar diagrams to represent real-world mathematical situations
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education
- SumDog computer math practice

Science

- Explore the scientific method through inquiry-based activities
- Earth Science: caverns, water, weather, rocks and soil, changes in the earth, and natural resources, oceanography
- Physical Science: Newton's 3 laws of motion and simple machines, robotics
- Incorporates Benjamin Franklin's contributions to science
- STEAM project involving rockets.
- Text: *Science* by Scott Foresman

Social Studies

- In-depth study of the state of Virginia
- Understand Virginia's geography and why the land was helpful or harmful to early exploration and settlement
- Explore Virginia's people and Colonial people, including Colonial Days celebration
- Investigate the role of Virginia in the establishment of a new nation
- Virginia landmark project
- Study world geography

Spanish

- Daily instruction in speaking, listening, reading, writing, vocabulary, and grammar
- Conversations inside and outside the classroom to enrich survival oral skills
- Extended reading comprehension skills
- Syllabification as a way of strengthening spelling
- Basic sentence writing
- Grammar and vocabulary through games, chants, and "fun day" activities"
- Student-centered mid- and end-of-school year skits to display skills and competencies
- Presentational skills for cultural exploration
- Exploration of Hispanic culture through compare-and-contrast activities, music, dances, and storytelling
- Participation in multicultural community and school events
- Inter-division collaboration to foster young Global Studies Scholars

Music

- Two lessons per week
- Refine both vocal and instrumental skills
- Further mastery of music notation reading ability
- Use of recorders, ukuleles, orff instruments and African drumming to apply acquired music skills
- Continue study of world music
- Introduce Jazz as an American art form
- Perform in the Williamsburg program, holiday program and end of year showcase

Art

- Weekly instruction
- Encompasses the elements of art and principles of design by focusing on a variety of media including acrylic, clay, colored pencil, pastels, and watercolor
- Incorporates art history into class projects
- Introduces some of “The Masters” and their works at a grade/age appropriate level

Library

- Weekly instruction
- Identify and recall major and minor characters, plot, and setting
- Read a variety of fiction, nonfiction, and award-winning books
- “Read” a dramatic part in Reader’s Theatre exercises
- Use a table of contents and index
- Use an atlas, both print and online
- Locate sections of the library and identify order arrangement and call numbers
- Use online encyclopedias to gather information for research
- Use technology resources for problem solving, communication, and illustration of thoughts, ideas, and stories
- Use online catalog to search library materials

Physical Education

- Daily classes
- Develop an appreciation for others and sportsmanship skills
- Fitness activities that develop coordination, flexibility, rhythmic movement, cardiovascular endurance, locomotor skills, spatial awareness, and tumbling skills
- Play and movement activities including scooters, relays, cooperative games, fitness testing, manipulative activities, activities to encourage creative expressions, sport skills, and games
- Participate in Jump Rope for Heart, the Physical Fitness Tests, and Colonial Day
- Understand the importance of exercise, nutrition, and personal hygiene
- Additional recess time provided each day

Guidance

- Develop a healthy sense of self-worth
- Learn how to resist peer pressure using assertive refusal skills and a problem-solving strategy
- Identify and practice active-listening skills
- Learn character education through a series of active and creative lessons.

Fourth Grade

As students enter fourth grade, they continue to develop the ability to think abstractly. Additionally, they are able to express in writing what they have learned across the curriculum. Therefore, writing is an integral part of each academic area. A team of teachers instructs the core courses of math, science, language arts, and social studies. Organization and study skills are emphasized and taught in all subject areas. Highlights of the fourth grade include an overnight trip to Williamsburg and Yorktown, a PowerPoint project that is presented to parents, and plays that students prepare and perform for the school community.

Language Arts (reading, spelling, writing, grammar)

- Continued development of reading skills, comprehension, and written responses to texts
- Daily oral reading, discussion of texts, vocabulary, and journal writing
- Bimonthly book reviews of outside-of-class reading
- Spelling using the Word Study approach
- Sentence structure, parts of speech, punctuation, subject-verb agreement, proofreading, and grammar rules
- Narrative, expository, persuasive, creative, descriptive, and letter writing assignments through the writing process
- Texts and literature:
 - *Because of Winn Dixie* by Kate DiCamillo
 - *Fantastic Mr. Fox* by Roald Dahl
 - *The Family Under the Bridge* by Natalie Savage Carlson
 - *Blizzard* by Jim Murphy
 - "If" by Rudyard Kipling
 - Various short stories and plays
 - *In the Year of the Boar and Jackie Robinson* by Bette Bao Lord

Mathematics

- Conceptual development and problem solving skills through visual learning, technology, and interactive learning
- Number and operations, algebra, measurement, geometry, and problem solving
- Exploration of place value and "number sense"
- Utilization of unit, "bar," or "strip" models to visualize amounts as parts and totals to solve word problems and to understand fractions
- DynaMath magazine
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education

Science

- Focus on Life Science
- Inquiry based instruction
- Development of science skills: observation, description, prediction, and data collection
- Formal experimentation based on the scientific method
- Detailed units on plants, animals, habitats, and ecosystems
- Planting and care of Lower School Garden
- Outdoor learning experiences foster awareness and understanding of local resources and environmental stewardship
- Text: Scott Foresman's *Science*

Social Studies

- United States history from early exploration through the Civil War
- United States geography, including state and capital locations as well as major rivers, lakes, mountain ranges, plains, and deserts of our country
- State research project
- Text: *The United States* by Harcourt

Spanish

- Daily instruction in speaking, listening, reading, writing, vocabulary, and grammar
- Fluency and accuracy balance in speaking skills inside and outside the classroom
- Interdisciplinary reading comprehension skills
- Spelling and accent mark enrichment
- Basic paragraph writing
- Grammar and vocabulary through games, chants, and "fun day" activities
- Adding debate skills to presentational skills for cultural exploration
- Student-centered mid- and end-of-school year skits to display skills, competencies, and cultural exploration
- Participation in multicultural community and school events
- Inter-division collaboration to foster young Global Studies scholars

Music

- Students choose either band or chorus
- Two rehearsals each week

Beginning Band

- Instruction in woodwind and brass instruments
- Emphasis on rhythm reading, time counting, note recognition, musical terminology, posture and position of instrument, maintenance of instrument, and listening skills
- Books and music:
 - *Tradition of Excellence — Book 1*
- Concert literature from the North Cross School Music library
- One evening concert during the year

Lower School Chorus

- Incorporates basic music theory, sight-singing skills, ear training, and proper vocal techniques
- Two evening concerts each year

Art

- Weekly instruction
- Encompasses the elements of art and principles of design by focusing on a variety of media, including acrylics, clay, colored pencil, pastels, and watercolor
- Incorporates art history into class projects
- Introduces some of “The Masters” and their work

Physical Education

- Daily classes
- Continue to develop an appreciation for others and sportsmanship skills
- Begin simple team sports and lead-up games to higher-level team games
- Participate in fitness activities, improve flexibility, muscular strength and endurance, speed, and cardiovascular endurance
- Learn to manage rules and concepts in games and sports
- Participate in Jump Rope for Heart and the Physical Fitness Tests
- Additional recess time provided each day

Library

- Weekly instruction
- Identify and describe genres
- Recall and identify major and minor characters, plot, and setting
- Use a table of contents, index, atlas, and almanac
- Collect and organize bibliographic data for citations
- Use online catalog to search library materials
- Use technology resources for research, problem solving, communication, and illustration of thoughts, ideas, and stories
- Begin to analyze and critically evaluate sources
- Begin to understand copyright and plagiarism
- Create a multimedia project using research gathered from a variety of sources

Guidance

- Develop a healthy sense of self-worth
- Learn how to resist peer pressure using assertive refusal skills and a problem-solving strategy
- Identify and practice active-listening skills
- Learn character education through a series of active and creative lessons

Fifth Grade

The emphasis in the Fifth Grade is on application of knowledge, organization of large amounts of material, combining and synthesizing the various subjects that are taught, independence, writing fluently and coherently, and problem solving. A team of teachers instruct the core courses of reading, language arts, word study, math, history, and science. Students visit the computer lab for coding. The students participate in various activities, including a Coding Fair, an author's breakfast, and an overnight trip to Washington, D.C.

Language Arts

- Includes reading, word study, composition, and grammar
- Literature integrated with historical topics
- Historical novels, fiction, non-fiction, poetry, and drama
- Vocabulary and word origin, reading strategies, and fluency
- Analysis of plot structure, character, and themes
- Spelling with emphasis on word study
- Constructing multi-paragraph stories, essays, and poems through the writing process
- Author's Breakfast presents student's self-published works of non-fiction
- Texts and literature:
 - *Boy of the Painted Cave* by Justen Denzel
 - *Maia of Thebes* by Ann Turner
 - *The Egypt Game* by Zilpha Keatley Snyder
 - *The Iliad* by Nick McCarty
 - Curriculum Associates *Write!*

Mathematics

- Further advance the conceptual development and problem solving skills developed in fourth grade through visual learning, technology, and interactive learning
- Number and operations, algebra, measurement, geometry, data analysis and probability, ratio, percentages, and problem solving
- Exploration of place value and "number sense," fractions and decimals
- Utilization of unit, "bar," or "strip" models to visualize amounts as parts and totals to solve word problems and to understand fractions
- STEM activities utilizing math and science concepts
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education

Science

Computer Science

- Begin a more in-depth study of computer coding
- Enhance problem-solving skills and determination
- Key concepts: loops, conditionals, and functions
- Develop a capstone project to display at Coding Fair

Practical Science

- Develop science skills: The Engineering Design Process
- Formal experimentation based on The Engineering Design Process (egg drop project and roller coasters)
- The solar system: the Sun, inner and outer planets, stars, early scientists, comets, asteroids, and meteors
- Forces and motion: gravity, velocity, friction, power, and Newton's laws of physics
- STEM activities utilizing math and science concepts

Social Studies

- Study of the ancient world, from 4.5 million years ago to the fall of the Roman Empire
- Classroom lectures, note-taking, textbook reading skills
- Cooperative team learning, hands-on activities including a lesson at scribe school, and creative projects
- Texts:
 - Houghton-Mifflin Harcourt *Ancient Civilizations* textbook
 - Supplemental historical reading through language arts

Spanish

- Daily instruction in speaking, listening, reading, writing, vocabulary, and grammar
- Sustained longer conversations with emphasis on proper language form, range, and register
- Interdisciplinary and multicultural reading comprehension skills
- From basic paragraph writing to extended paragraph writing
- Exploration of the oral and written forms for target language enrichment
- Grammar and vocabulary through games, chants, and "fun day" activities
- Debates, presentations, and discussion circles to deepen the cultural compare-and-contrast
- Adding debate skills to presentational skills for cultural exploration
- Student-centered mid- and end-of-school year skits to display skills, competences, and cultural exploration
- Participation in multicultural community and school events
- Lower School Spanish Society to cultivate skills in the areas of ambassadorship, service to school, and service to community

Art

- Weekly instruction
- Encompasses the elements of art and principles of design by focusing on a variety of media, including acrylic, clay, colored pencil, pastels, and watercolor
- Incorporate art history into class projects
- Introduce some of “The Masters” and their works at a grade/age appropriate level

Music

- Three rehearsals each week
- Continued study of band or chorus

Beginning Band

- Instruction in woodwind, brass, or percussion instruments, continuing instruction from fourth grade (Please note: Students who did not begin band at NCS in fourth grade are strongly recommended to take private lessons before the school year begins and throughout the fall term.)
- Emphasis on rhythm reading and time counting, note recognition, musical terminology, major scales, posture and position of instrument, maintenance of instrument, and listening skills
- Books and music:
 - *Tradition of Excellence — Book 1* (second half)
 - Concert literature from the North Cross School Music library
- Two evening concerts during the year

Lower School Chorus

- Incorporates basic music theory, sight-singing skills, ear training, and proper vocal techniques, continuing instruction from fourth grade
- Two evening concerts each year

Guidance

- Develop a healthy sense of self-worth
- Learn how to resist peer pressure using assertive refusal skills and a problem-solving strategy
- Identify and practice active-listening skills
- Learn character education through a series of active and creative lessons

Physical Education

- Daily classes
- Gain benefits from exercise and promote an interest in personal wellness, lifetime sports, and North Cross athletics
- Develop muscle strength, static stretching skills, weight training techniques, fitness training skills, general athletic skills involved with team and individual sports
- Develop team sport skills for volleyball, football, basketball, baseball/softball, and soccer
- Participate in Jump Rope for Heart and the Physical Fitness Tests
- Additional recess time provided each day

Library

- Read a variety of fiction and nonfiction
- Identify story elements and genre
- Use a variety of media and technology resources for research, problem solving, communication, and illustration of thoughts, ideas, and stories
- Analyze and critically evaluate sources
- Be aware of copyright and be able to identify instances of plagiarism
- Collect and organize bibliographic data for citations
- Locate sections of the library and identify order arrangement and call numbers
- Create a multimedia presentation using research gathered from a variety of sources

Sixth Grade

The sixth-grade year provides a traditional academic curriculum while recognizing and embracing the transitional experience of new middle school students. At the beginning of the year, students attend an orientation trip at Camp Roanoke. During the fall and winter terms, faculty members and advisors seek to help each student create a system of academic organization and study skills appropriate for their middle school classes. During the year, students learn research and computer skills in multiple subjects, work their way into introductory algebra, may join organized sports teams, take part in a year-long intramural program of competitions, and perform in band or choir concerts.

English

- Combination of literature, grammar, mechanics, and composition
- Composition instruction includes extensive work with the stages of the writing process, formal and informal writings, and use of MLA formatting
- Introduction to research skills, such as discerning good source material and identifying important facts from sources
- Literature instruction emphasizes vocabulary development and comprehension of text, and introduces text analysis, including theme, plot, characterization, and figurative language
- Emphasis on time management, test taking, organization, study skills, and technology
- Texts:
 - Sadlier, *Grammar for Writing* (electronic text)
 - Sadlier, *Connect* (e-vocabulary)
 - *Wonder*, by R.J. Palacio
 - *Where the Red Fern Grows*, by Wilson Rawls
 - *The Adventures of Tom Sawyer*, by Mark Twain
 - *The Hobbit*, by J.R.R. Tolkien
 - Selected short stories and poetry

Mathematics

- Explore number operations and computations, including fractions, decimals, mixed numbers, integers, ratios, proportions, percentages, patterns, and algebraic symbols, to bridge the transition between lower school math and the formal study of algebra
- Analyze and evaluate variable expressions
- Solve one-step and two-step variable equations and inequalities
- Identify points on the coordinate plane and graph linear equations
- Study geometric relationships to analyze properties of circles, rectangles, and triangles, including the use of exponents and square roots
- Problem solving through collecting, recording, organizing, interpreting, and displaying data

- Apply the concepts of probability to analyze the likelihood of events and make predictions
- Electronic Text: Prentice Hall's *Mathematics: Course 2*

General Science

- Explore the physical universe and the principles that direct the interactions between different types of matter and energy
- Practice the process of science: how to observe, measure, and record data, research and report information, and how to design and evaluate experiments
- Focus on personal actions and their impact on the environment
- Texts:
 - Pearson's Interactive Science: *Physical Science* (electronic text and hard copy)
 - Scholastic's *Science World* magazine

History

- Study of American government beginning with the Constitutional Convention through the Civil War, focusing on the development of constitutional government, the Westward expansion and related territorial disputes, and the events leading to the Civil War
- Develop knowledge of history, geography, civics, and economics, which enables students to understand the people, ideas and events that have shaped our nation
- Activities to build students' skills in debate, discussion, and writing
- Use of primary and secondary sources and historical novels to emphasize topics studied in class
- Texts:
 - *A History of US: The New Nation: 1789-1850*, by Joy Hakim
 - *A History of US: Liberty for All?: 1820-1860*, by Joy Hakim
 - *Seaman*, by Gail Langer Karwoski
 - *Chasing Lincoln's Killer* by James Swanson
 - *Junior Scholastic Magazine* by Scholastic

World Languages

- Students choose French or Spanish in a program that reflects lower school fundamentals and begins a more advanced study of the modern foreign languages.
- Five lessons each week

French A

- Introductory course emphasizing the four facets of learning a language: reading, writing, listening, and speaking
- Incorporates study of the French-speaking world, including history, culture, and geography
- Learn and apply basic French vocabulary
- Review and use of both regular and irregular verbs in present tense
- Increase awareness of grammatical concepts in French as well as English
- Encourage use of the French language both in and outside of the classroom
- Electronic text: EMC Publishing's *T'es branché?*

Spanish A

- Intermediate course in conversation, grammar, oral comprehension, reading and writing
- Master new vocabulary including greetings, time, classroom items, and adjectives to describe people, food, family, age, clothes, and places
- Explore cultural diversity to learn and compare practices, products, and perspectives
- Exposure to basic aspects of grammar, including indefinite articles, plurals of nouns and articles, and present tense of regular, irregular, and stem-changing verbs
- Encourage the use of the Spanish language both inside and outside the classroom
- Text: Holt McDougal's *¡Avancemos!*

Music

- Continued study of band or chorus
- Four rehearsals per week
- Two evening concerts during the year

Concert Band

- Continues instruction from Lower School in woodwind, brass, or percussion instruments
 - Students who did not begin band at NCS in fourth grade, or new students without musical experience, are strongly recommended to take private lessons before the school year begins and throughout the fall term. Lessons are essential to build skills and confidence in a student who is new to playing an instrument and students will be joining a performing ensemble that began in the fourth grade.
 - Practice time is required outside of class. Practice charts are turned in each week as part of the band grade.

- Emphasis on rhythm reading and time counting, musical terminology, major scales, rudiments, chromatic scale, music history, posture and position of instrument, and listening to professional recordings
- Music performance level: Grade II/II+

Concert Choir

- Incorporates basic music theory, sight-singing skills, ear training, and proper vocal techniques, continuing instruction from Lower School
- Two evening concerts during the year

Library

- Use technology resources for research, problem solving, communication, and illustration of thoughts, ideas, and stories
- Analyze and critically evaluate sources
- Formulate strategies for gathering information on a topic using a variety of search techniques
- Use and understand primary and secondary sources
- Collect and organize bibliographic data for citations
- Know the significance of domain names
- Demonstrate positive social and ethical behaviors when using technology
- Understand what constitutes plagiarism

Health & Wellness

- Learn the value of nutrition and exercise by developing healthy habits
- Identify the personal, health, and social consequences of using tobacco, marijuana, alcohol, and inhalants
- Learn decision-making techniques
- Develop self-care strategies including stress management, time management, relationship management, and goal setting

Physical Education

- Daily classes
- Gain benefits from exercise and promote an interest in personal wellness, lifetime sports, and North Cross School athletics
- Develop muscle strength, static stretching skills, weight training techniques, fitness training skills, and general athletic skills involved with team and individual sports
- Establish fitness goals and participate in fitness tests to assess progress
- Learn the basic history and major rules of multiple sports

Seventh Grade

The seventh-grade year reflects a transition to more sophisticated academic work and a larger variety of course offerings, including three different courses in math and in the fine arts. The reading selections in English and history are more advanced in terms of theme and genre, and writing assignments in all disciplines stress individual analysis, personal reflection, and the proper use of research documentation. In the spring term, students engage in research projects in their English and history courses. The Life Science course pays particular emphasis in the spring to watershed formation and development, and the students spend time in the field studying water quality, nutrient levels, and common causes of eutrophication. The coursework during seventh-grade begins to lay the foundation for the successful eighth-grade transition to the Upper School program.

English

- Combination of literary study, grammar, mechanics, and composition focusing on various types of writing using appropriate diction and structures
- Practice of the writing process through essays, journals, a thesis-driven paper, and creative writing (poetry and short stories)
- Develop research skills from MLA style of citation to analyzing web sites for accuracy and reliability
- Novel and short story study emphasizing comprehension, vocabulary, and critical analysis
- Emphasis on organization, time management, study skills, memory skills, note taking, test taking, and technology
- Texts:
 - Sadlier, *Grammar for Writing, Grade 7* (electronic text)
 - Sadlier, *Vocabulary Workshop* (online curriculum)
 - *The Outsiders* by S. E. Hinton
 - *A Raisin in the Sun* by Lorraine Hansberry
 - *The Boy in the Striped Pajamas* by John Boyn
 - *The Giver* by Lois Lowry
 - Short stories and poetry by Langston Hughes, Robert Frost, and Edgar Allan Poe

Mathematics

- Course determined by sixth-grade end-of-year placement process
- Offerings include Pre-algebra, Algebra 1-Part 1 (TI-84 graphing calculator required), and Honors Algebra I (TI-84 graphing calculator required)
- E-Texts:
 - Holt McDougal Larson's *Pre-Algebra*
 - Holt McDougal Larson's *Algebra 1*

Life Science

- Explore how life is defined at a chemical and cellular level
- Focus on intracellular and extracellular processes that affect living organisms
- Study of the cell, the characteristics of life, and ecology
- Review and further enrich knowledge of the processes of science: how to observe, measure, and record data,

research and report information, and design and evaluate experiments

- Writing and research skills developed using observations and outside resources
- Focus on personal actions and their impact to the environment
- Texts:
 - Pearson's *Interactive Science: Life Science* (electronic text and hard copy)
 - Scholastic's *Science World* magazine

History

- Continuation of American history begun in sixth grade
- Study of the Reconstruction of the South through present day events with particular focus on World War I, the Great Depression, and World War II
- Make connections to the past and understand how and why it applies today
- Recognition of the basic values, principles, and operation of American constitutional democracy
- Use of primary and secondary sources and historical novels to emphasize topics studied in class
- Activities to build students' skills in debate, discussion, and writing
- Texts:
 - Glencoe Publishing's *The American Journey*
 - *A History of US: Reconstructing America: 1865-1890*, by Joy Hakim
 - *A History of US: An Age of Extremes: 1880-1917*, by Joy Hakim
 - *A History of US: War, Peace, and All that Jazz: 1918-1945*, by Joy Hakim
 - *Truce*, by Jim Murphy
 - *Junior Scholastic Magazine* by Scholastic

World Languages

- Students choose French, Spanish or Latin for daily study
- **French B**
 - Second year course in introductory French emphasizing the

four facets of language learning: speaking, reading, writing, and listening comprehension

- Review regular, irregular, and stem-changing verbs in the present, past, and future tenses
- Reinforce the quotidian phrases necessary for daily conversation and fluency
- Increase awareness of political, cultural, and geographical information concerning the French-speaking world
- Focus on the creation of thematic and descriptive sentences and paragraphs
- Encourage the use of the French language both inside and outside the classroom
- Incorporates traditional French songs, skits and guided conversations using new vocabulary and readings of level-appropriate material
- Texts:
 - EMC Publishing's *T'es branché?* (electronic)
 - Amsco's *French First Year Workbook*

Spanish B

- Augment introductory linguistic concepts and vocabulary learned in Spanish A
- Reinforce and expand the vocabulary used in basic real-life settings
- Build upon knowledge of some basic regular and irregular verbs and introduce reflexive verbs
- Introduce the imperative, the present progressive, the past tense, and more complex grammatical structures
- Promote greater confidence in effective oral and written communication
- Continued exposure to basic aspects of grammar, including reflexive verbs; direct and indirect object pronouns; demonstrative articles; and present and preterite tenses of regular, irregular, and stem-changing verbs
- Encourage the use of the Spanish language both inside and outside the classroom
- Text: Holt McDougal's *¡Avancemos!*

Latin I

- Focus on developing competence in basic grammar, pronunciation, and translation
- Building Latin vocabulary and relating it to English derivatives
- Introduction to Roman history, geography, and mythology
- Text: *Latin for the New Millennium Level 1*

Fine Arts

- Students choose art, band, or chorus for study throughout the year, meeting five times per week.

Visual Art

- Encompasses the elements of art and principles of design by focusing on a variety of media, including acrylic, clay, colored pencil, pastels, and watercolor
- Incorporates art history into class projects
- Weekly sketchbook assignments
- Major projects: Master works painting project and paper,

Gala project, F.O.T.A. Coffeehouse fundraiser, SPCA Annual Art Show

- Student art exhibition

Concert Band

- Continues instruction from Lower School in woodwind, brass, or percussion instruments
 - Students who did not begin band at NCS in fourth grade, or new students without musical experience, are strongly recommended to take private lessons before the school year begins and throughout the fall term. Lessons are essential to build skills and confidence in a student who is new to playing an instrument and students will be joining a performing ensemble that had begun in the fourth grade.
 - Practice time is required outside of class. Practice charts are turned in each week as part of the band grade.
 - Emphasis on rhythm reading and time counting, musical terminology, major scales, rudiments, chromatic scale, music history, posture and position of instrument, and listening to professional recordings
 - Music performance level: Grade II/II+
- ### Concert Choir
- Incorporates basic music theory, sight-singing skills, ear training, and proper vocal techniques, continuing instruction from sixth grade
 - Two evening concerts during the year

Library

- Use technology resources for research, problem solving, communication, and illustration of thoughts, ideas, and stories
- Analyze and critically evaluate sources
- Formulate strategies for gathering information on a topic using a variety of search techniques
- Use and understand primary and secondary sources
- Collect and organize bibliographic data for citations
- Know the significance of domain names
- Demonstrate positive social and ethical behaviors when using technology
- Understand what constitutes plagiarism

Physical Education

- Daily classes to gain benefits from exercise and promote an interest in personal wellness, lifetime sports, and North Cross School athletics
- Develop muscle strength, static stretching skills, weight training techniques, fitness training skills, and general athletic skills involved with team and individual sports
- Establish fitness goals and participate in fitness tests to assess progress
- Learn the basic history and major rules of multiple sports

Eighth Grade

The eighth-grade year is characterized by an emphasis in more abstract thinking, engaging mathematical applications in algebra and geometry, classroom debate, and intermediate foreign language study. The students take part in an overnight river study trip to West Virginia in the fall, and the year culminates in a trip to Washington D.C., which includes visits to the Smithsonian Museum, the Kennedy Center, the U.S. Capitol, and an historical walking tour. Although teachers stress the skills necessary to succeed in the upcoming Upper School program, the final year of North Cross Middle School provides students a unique opportunity for leadership, self-reflection, creative writing, and personal growth.

English

- Emphasis on moving beyond concrete ideas and toward more abstract thinking
- Thematic approach to novels, short stories, and poems, connecting literature, the students' lives, and the greater world
- Literature study complemented with grammatical exercises, vocabulary practice, and creative and essay writing
- Study of the research process, documentation, and MLA format for research papers
- Analysis of important poetical works of various forms with emphasis on rhyme scheme, diction, tone, and symbol
- Study of literary terms to build vocabulary and effectively discuss the elements of literary works
- Texts:
 - Sadlier, *Grammar for Writing, Grade 8* (electronic text)
 - Sadlier, *Vocabulary Workshop* (online curriculum)
 - *Of Mice and Men*, by John Steinbeck
 - *To Kill a Mockingbird*, by Harper Lee
 - *Romeo and Juliet*, by William Shakespeare
 - *A Long Way Gone*, by Ishmael Beah
 - Selected poetry by a range of authors

Mathematics

- Course placement determined by performance in individual student's seventh-grade math class
- Offerings include Algebra 1-Part 1, Algebra 1-Part2, Algebra 1, and Geometry (TI-84 graphing calculator required for all courses)
- Texts:
 - Holt McDougal Larson's *Algebra 1* (electronic text)
 - Holt McDougal Larson's *Geometry* (electronic text)

Earth Science

- Integrates a range of fields including geology, physics, chemistry, biology and mathematics
- Major topics: energy resources, oceans, the atmosphere and our place in the solar system
- Modern technologies and lab techniques will be used in the study of the Earth's processes, environments and geologic history
- Review and further enrich knowledge of the process of science: how to observe, measure, and record data, how to research and report information, and how to design and evaluate experiments
- Texts:
 - Pearson's *Interactive Science: Earth Science* (electronic and hard copy text)
 - Scholastic's *Science World* magazine

History

- Survey of world history from the origins of man through the Renaissance
- Major topics: interactions of environment, cultures, religious and ethical systems, economics, authority and power, empire building, and science and technology
- Emphasis placed on knowledge and skills that allow students to research, debate, discuss, and write about the factors that have shaped the world and continue to influence the shaping of the world
- Texts:
 - McDougal Littell's *World History: Patterns of Interaction* (electronic text)
 - Individual historical fiction selection

World Languages

- Students choose to study French, Spanish, or Latin for daily study throughout the year.

French I

- Acquire basic to intermediate French vocabulary and grammar through structured daily exercises and group practice
- Focus on proper pronunciation of the French language, including accented vowels and diphthongs

- Strengthen overall writing and listening skills in preparation for the National French Exam
- Study the geography, history, and major products of France
- Drill the grammatical structures necessary to conversing in daily spoken French and in formal writing
- Read level-appropriate literature, articles, and poems
- Discuss contemporary issues in the French-speaking world, as well as historical issues of relevance
- Text: Glencoe McGraw Hill's *Bon Voyage*

Spanish I

- Build upon skills learned in Spanish A and B
- Reinforce and expand the vocabulary used in various real-life settings
- Develop a Spanish accent and understand the role of pronunciation
- Enhance listening skills by listening to CD's and videos by Hispanic speakers
- Introduction to important grammar rules and their exceptions
- Develop writing skills in complete sentences and paragraphs
- Expand the command of important idiomatic expressions such as "tener suerte" and "tener razón"
- Promote a greater understanding of the Hispanic culture
- Text: Holt, Rinehart and Winston's *¡Exprésate!*

Latin I

- Focus on developing competence in basic grammar, pronunciation, and translation
- Building Latin vocabulary and relating it to English derivatives
- Introduction to Roman history, geography, and mythology
- Text: *Latin for the New Millennium Level 1*

Fine Arts

- Students choose art, band, chorus, or creative writing and meet five days a week

Visual Art

- Focus on the elements of art and principles of design, while exposing students to a variety of media
- Weekly sketchbook assignments
- Major projects: Master works painting project and paper, Gala project, F.O.T.A. Coffeehouse fundraiser, SPCA Annual Art Show
- Student art exhibition

Symphonic Band

- Advanced class that combines students from multiple grades in preparation for two evening concerts, district auditions, and Combined Honor Band Day
 - New students who wish to join the symphonic band are required to audition with the band director to determine their music performance level
- Students in eighth through twelfth grade work toward playing their instruments at the advanced level, music performance level Grade IV

- Emphasis placed on rhythm reading and time counting, dynamics, 12 major scales, rudiments, full range of the chromatic scale, jazz, music history and listening to professional recordings

Chorale

- Advanced class that combines students from multiple grades in preparation for two evening concerts, district auditions and local festivals
- Focus on more advanced music theory, sight-singing skills, ear training, and vocal techniques

Creative Writing

- Guide students through a series of writing genres including short stories, poetry, fiction, and journalistic articles
- Use of the necessary terminology and analytical tools to do critical analysis and peer editing
- Organize at least one creative writing performance during the year, providing a forum to showcase student work
- Compile, edit, and publish a spring creative writing magazine for the student body

Library

- Use technology resources for research, problem solving, communication, and illustration of thoughts, ideas, and stories
- Analyze and critically evaluate sources
- Formulate strategies for gathering information on a topic using a variety of search techniques
- Use and understand primary and secondary sources
- Collect and organize bibliographic data for citations
- Know the significance of domain names
- Demonstrate positive social and ethical behaviors when using technology
- Understand what constitutes plagiarism

Physical Education

- Daily classes
- Gain benefits from exercise and promote an interest in personal wellness, lifetime sports, and North Cross School athletics
- Develop muscle strength, static stretching skills, weight training techniques, fitness training skills, and general athletic skills involved with team and individual sports
- Establish fitness goals and participate in fitness tests to assess progress
- Learn the basic history and major rules of multiple sports

Ninth Grade

Beginning in ninth grade, students more independently navigate their school experience both intellectually and developmentally. The transition to the Upper School includes support in each class with emphasis on skill development in reading, writing, note-taking, study habits, and time management. A one-term Health and Wellness seminar that meets twice a week is led by the school counselor. The academic rigors of the Upper School include a seven-period schedule, formal exams in November and June, and approximately two hours of homework each school night. A highlight at the beginning of the year includes a two-day overnight trip to Wilderness Adventure that provides an opportunity for students to learn more about themselves and their classmates. Ninth graders, along with the rest of the Upper School students, complete 12.5 hours of community service each year, experience a variety of Thursday Activity programs, participate in the annual Symposium program, and use an iPad as part of the School's integrated technology program. Each morning starts with an assembly or a senior speech in Fishburn Auditorium.

English

- Emphasis on thesis-based writing and analysis of texts
- Development of close reading and abstract thinking skills
- Incorporation of a variety of assessments, including tests, quizzes, papers, and projects
- Texts:
 - Homer's *Odyssey*
 - Tennessee Williams' *The Glass Menagerie*
 - John Steinbeck's *The Moon is Down*
 - Margaret Atwood's *The Penelopiad*
 - Markus Zusak's *The Book Thief*
 - Shakespeare's *Twelfth Night*

Mathematics

- Course placement determined by individual student's previous year's math class and performance
- Offerings include Algebra 1-Part 2, Geometry, Algebra 2
- Full-year elective (3 credits): Introduction to Computer Science

World Languages

- Graduation requirement of three consecutive levels of one language with a minimum of nine credits in the Upper School
- Instruction offered in French, Latin, and Spanish through the AP level
- Additional years beyond the graduation requirement offered as electives
- Coursework guided by the "5 C's" of the American Council on the Teaching of Foreign Languages: communication, connections, comparisons, communities, and culture
- Student placement depends upon achievement in previous language classes

Science

Conceptual Physics

- Inquiry-based instruction that incorporates lectures, laboratories, demonstrations, homework, and in-class problem solving
- Use of computer probe ware and software for data collection and analyses
- Builds upon science and math skills developed in previous courses of study
- Major topics: light and optics, sound and waves, Newton's laws, forces, motion in 1- and 2-dimensions, and conservation laws
- Texts: *Conceptual Physics, 12th Edition* by Paul Hewitt (Pearson online textbook); Online resources and assignments at masteringphysics.com

History

Introduction to Global Studies

- Interdisciplinary course designed for students interested in pursuing broader participation in the Global Studies Program
- Familiarize students with recent, current, and future global issues
- Topics range from population, economic development, environmental and resource issues, and food and energy concerns
- Text: *Global Issues: An Introduction*
- Additional resources: TED Talks, current news publications and sites, web-based resources

Fine and Performing Arts

- Graduation requirement of three credits
- Full-year electives (three credits each)
 - Advanced Studio Art
 - Chorale
 - Graphic Design
 - Introduction to Studio Art
 - Portfolio (Studio Art)
 - Symphonic Band

Additional Electives

- May require permission of the teacher or department chair and/or have prerequisites
- Full-year electives (three credits each)
 - Advanced Reading and Writing
 - Introduction to Instrumentation and Robotics
 - Journalism
 - Sports Business/Entrepreneurship
 - Yearbook

Athletic Requirement

- Must participate in three athletic seasons during their four years in the Upper School
- Requirement may be fulfilled by:
 - Participating as a member of a team
 - Managing a team

Health & Wellness

- Learn the value of nutrition and exercise by developing healthy habits
- Identify the personal, health, and social consequences of using tobacco, marijuana, alcohol, and inhalants
- Learn decision-making techniques
- Develop self-care strategies including stress management, time management, relationship management, and goal setting

Tenth Grade

Scholastic offerings expand in the tenth grade with options for additional elective coursework, taking the PSAT for the first time, and more independent thinking and work in academic classes. Tenth graders, along with the rest of the Upper School students, complete 12.5 hours of community service each year, experience a variety of Thursday Activity programs, participate in the annual Symposium program, and use an iPad as part of the School's integrated technology program. Each morning starts with an assembly or a senior speech in Fishburn Auditorium.

English

- Exploration of American and Shakespearean literature as both text and culture
- Increased emphasis on the relationship between critical reasoning and oral and written analysis
- Texts:
 - Ralph Ellison's *Invisible Man*
 - Mark Twain's *The Adventures of Huckleberry Finn*
 - John Steinbeck's *East of Eden*
 - William Faulkner's *Absalom, Absalom!*
 - *101 Great American Poems* (includes Whitman, Dickenson, Frost, L. Hughes, Eliot)
 - F. Scott Fitzgerald's *The Great Gatsby*
 - Aesthetically and historically significant short stories from authors such as Irving, Poe, Melville, Anderson, Steinbeck, Faulkner, Hemingway, Welty, McCullers, Oates, Updike, O'Connor
 - Non-fiction texts of Emerson, Thoreau, and King

Mathematics

- Course placement determined by individual student's previous year's math class and performance
- Offerings include Algebra 2, Geometry, College Algebra, Precalculus
- Full-year electives (three credits each):
 - Introduction to Computer Science
 - Advanced Computer Science
 - AP Computer Science A

World Languages

- Graduation requirement of three consecutive levels of one language with a minimum of nine credits in the Upper School
- Instruction offered in French, Latin, and Spanish through the AP level
- Additional years beyond the graduation requirement offered as electives
- Coursework guided by the "5 C's" of the American Council on the Teaching of Foreign Languages: communication,

connections, comparisons, communities, and culture

- Student placement depends upon their achievement in previous language classes

Science

- Full-year electives (three credits each)
 - AP Physics
 - Biomechanics
 - Introduction to Forensic Science
 - Introduction to Instrumentation and Robotics

Chemistry

- Laboratory activities extend lecture concepts and emphasize standard procedures and safety considerations
- Major topics: units and measurements, atomic structure, bonding, nomenclature, chemical reactions, stoichiometry, gas laws, thermochemistry, acids and bases, biochemistry and nuclear chemistry
- Honors chemistry offered
- Introduction to Chemistry is offered as a non-math-based option
- Text: Pearson's iBook *Chemistry*

History

- Students participate in either the Sophomore Sequence (a full-year course divided by trimester into Art History, Composition, and History of the 20th Century) or AP World History

AP World History

- Study of the interaction between humans and the environment
- Follow the development and interaction of cultures
- Examine the building of states and government, including expansion and conflict
- Analyze the creation, expansion, and interaction of economic systems
- Explore the development and transformation of social structures
- Text: Robert W. Strayer's *Ways of the World: A Global History with Sources* (2nd ed.)

Fine and Performing Arts

- Graduation requirement of three credits
- Full-year electives (three credits each)
 - Advanced Studio Art
 - Chorale
 - Graphic Design
 - Introduction to Studio Art
 - Portfolio (Studio Art)
 - Symphonic Band

Additional Electives

- May require permission of the teacher or department chair and/or have prerequisites
- Full-year electives (three credits each)

- Advanced Reading and Writing
- AP Human Geography
- Economics and Personal Finance
- Journalism
- Sports Business/Entrepreneurship
- Yearbook

Athletic Requirement

- Must participate in three athletic seasons during their four years in the Upper School
- Requirement may be fulfilled by:
 - Participating as a member of a team
 - Managing a team

Eleventh Grade

Eleventh grade is a pivotal year as students fulfill a long term research project, may take multiple Advanced Placement courses, and begin the college admissions process in earnest. Juniors take the PSAT in the fall and are strongly encouraged to take both the SAT and ACT prior to the end of the spring term. The full-time college counselor works closely with the junior class in determining the best college fit for each student. College preparatory events include the PSAT Score Return Night in December, College Night in February, and an individual meeting with each student and his/her parents before the end of the spring term. A fall hike at Peaks of Otter is a highlight of the first term. Eleventh graders, along with the rest of the Upper School students, complete 12.5 hours of community service each year, experience a variety of Thursday Activity programs, participate in the annual Symposium program, and use an iPad as part of the School's integrated technology program. Each morning starts with an assembly or a senior speech in Fishburn Auditorium.

English

- Survey of British literature, providing a broad range of genres and styles
- Continued emphasis on critical, analytical, and argumentative writing
- Begin the process of shaping Senior Projects
- Texts:
 - *Beowulf*
 - Chaucer's *Canterbury Tales*
 - George Orwell's *1984*
 - William Shakespeare's *King Lear*
 - Mary Shelley's *Frankenstein*
 - Joseph Conrad's *Heart of Darkness*
 - Aesthetically and historically significant short stories from authors such as Dickens, Chesterton, and Joyce
- Advanced Placement English classes offered in alternating years

AP English Language and Composition

- Selection of texts:
 - *The Language of Composition*. 2nd ed.
 - Essays and speeches, including works by Ralph Waldo Emerson, David Thoreau, Martin Luther, King, Jr., Abraham Lincoln, John F. Kennedy, Jonathan Swift, Virginia Woolf, William Faulkner, Joyce Carol Oates, George Orwell, Mark Twain, Amy Tan, and Rachel Carson
 - William Shakespeare's *Richard III*
 - Kate Chopin's *The Awakening*

Mathematics

- Course placement determined by individual student's previous year's math class and performance
- Offerings include AP Calculus AB, Calculus, Precalculus, Algebra 2, Geometry, College Algebra, and AP Statistics
- Full-year electives:
 - Introduction to Computer Science
 - Advanced Computer Science
 - AP Computer Science A

World Languages

- Graduation requirement of three consecutive levels of one language with a minimum of nine credits in the Upper School
- Instruction offered in French, Latin, and Spanish through the AP level
- Additional years beyond the graduation requirement offered as electives
- Coursework guided by the "5 C's" of the American Council on the Teaching of Foreign Languages: communication, connections, comparisons, communities, and culture
- Student placement depends upon their achievement in previous language classes

Science

Biology

- Concerned with the structure, function, distribution, adaptations, interactions, and evolution of all living organisms
- Systems-view of biology, stressing ecology and evolution and the interactions of organisms, including the human species, with their environment
- Text: Pearson iBook *Biology*
- Full-year electives (three credits each)
 - AP Chemistry
 - AP Physics
 - Biomechanics
 - Introduction to Forensic Science
 - Science, Technology, Art, Design

United States History

- General survey of the United States from discovery to the present
- Informs students of our historical heritage so they can make informed decisions about present day events
- Requires weekly preparation for quizzes and tests plus outside reading and research
- AP US History class offered
- Texts:
 - Alan Brinkley's *The Unfinished Nation*
 - *Cracking the AP United States History Exam* (AP workbook)
- Full Year electives (three credit each)
 - AP Human Geography

Fine and Performing Arts

- Graduation requirement of three credits
- Full-year electives (three credits each)
 - Advanced Studio Art
 - Chorale
 - Graphic Design
 - Introduction to Studio Art
 - Portfolio (Studio Art)
 - Symphonic Band

Additional Electives

- May require permission of the teacher or department chair and/or have prerequisites
- Full-year electives (three credits each)
 - Advanced Reading and Writing
 - Creative Expression
 - Economics and Personal Finance
 - Journalism
 - Sports Business Entrepreneurship
 - Yearbook

Athletic Requirement

- Must participate in three athletic seasons during their four years in the Upper School
- Requirement may be fulfilled by:
 - Participating as a member of a team
 - Managing a team

Twelfth Grade

The twelfth grade represents the culminating experience of a North Cross School education. It is highlighted by the DeHart Project. The extensive research paper, speech and presentation, delivered to the school community, requires dedication and passion, a high degree of independent work, and close communication with a faculty advisor. College counseling continues to be highly individualized with a scheduled meeting with the college counselor, student, and parents. In addition, over twenty college representatives visit campus to meet with interested students. The senior year also includes a year-long Early Childhood-Senior Buddy program, fall hike, and additional senior privileges. Twelfth graders, along with the rest of the Upper School students, complete 12.5 hours of community service each year, experience a variety of Thursday Activity programs, participate in the annual Symposium program, and use an iPad as part of the School's integrated technology program. Each morning starts with an assembly or a senior speech in Fishburn Auditorium.

English

- Focus on world literature
- Emphasis on research methods and writing
- Focus on connections among major literary texts
- Texts:
 - Sophocles' *Antigone*
 - William Shakespeare's *Richard III*
 - Tim O'Brien's *The Things They Carried*
 - Ian McEwan's *Black Dogs*
 - Chinua Achebe *Things Fall Apart*
- Advanced Placement English classes offered in alternating years

AP English Language and Composition

- Selection of texts:
 - *The Language of Composition*. 2nd ed.
 - Essays and speeches, including works by Ralph Waldo Emerson, David Thoreau, Martin Luther, King, Jr., Abraham Lincoln, John F. Kennedy, Jonathan Swift, Virginia Woolf, William Faulkner, Joyce Carol Oates, George Orwell, Mark Twain, Amy Tan, and Rachel Carson
 - William Shakespeare's *Richard III*
 - Kate Chopin's *The Awakening*

Mathematics

- Course placement determined by individual student's previous year's math class and performance
- Offerings include AP Calculus BC, AP Calculus AB, Calculus, Precalculus, Algebra 2, College Algebra, and AP Statistics
- Introduction to Computer Science, Advanced Computer Science, AP Computer Science A

World Languages

- Graduation requirement of three consecutive levels of one language with a minimum of nine credits in the Upper School
- Instruction offered in French, Latin, and Spanish through the AP level
- Additional years beyond the graduation requirement offered as electives
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- Student placement depends upon their achievement in previous language classes

Science

- Full-year electives (three credits each)
 - AP Biology
 - AP Chemistry
 - AP Physics
 - Environmental Studies
 - Introduction to Instrumentation and Robotics
- One-term Elective (one credit)
 - Introduction to Sports Medicine

History

Students choose one of the following courses:

AP Comparative Government and Politics

- Study the processes and outcomes of politics in a variety of country settings
- Consider the importance of global political and economic changes
- Compare different political systems to identify problems and analyze policymaking
- Electronic Text: *Comparative Politics Today: A World View, AP Edition* by Powell, Dalton and Strom

United States Government

- Educate students on the broad, basic principles of governance while investigating current events that directly affect students and their families
- Investigate of problems the government addresses with the goal of participation in mind
- Discuss both the rules of a democratic government and the thought behind those rules in order to understand the individual's role as a citizen
- Provide students with the information necessary to make informed decisions about the issues they face as citizens of the United States
- Text: Karen O'Connor and Larry Sabato's *Essentials of American Government - Continuity and Change*
- Full-year Elective (three credits each)
 - AP Human Geography

Fine and Performing Arts

- Graduation requirement of three credits
- Full-year electives (three credits each)
 - Advanced Studio Art
 - Chorale
 - Graphic Design
 - Introduction to Studio Art
 - Portfolio (Studio Art)
 - Symphonic Band

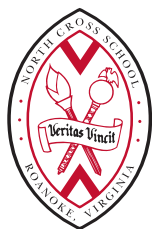
Additional Electives

- May require permission of the teacher or department chair and/or have prerequisites
- Full-year electives (three credits each)
 - Advanced Reading and Writing
 - Economics and Personal Finance
 - Journalism
 - Sports Business Entrepreneurship
 - Yearbook

Athletic Requirement

- Must participate in three athletic seasons during their four years in the Upper School
- Requirement may be fulfilled by:
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 - Managing a team

North Cross School's academic program is designed to prepare our students for success in college, career, and citizenship. Our teachers are skilled, our facilities support the goals of the program and our thoughtfully constructed, comprehensive, and rigorous curriculum reflect the school's mission: North Cross School is an independent, nonsectarian, college-preparatory school that serves children from early childhood through twelfth grade. North Cross provides a rigorous academic curriculum, competitive with the best college-preparatory schools in the Commonwealth of Virginia. While we explicitly recognize the importance of intellectual development and academic achievement, we also strive to promote personal integrity, empathy, and responsibility to self and community. Through this, our graduates will act as leaders in the local and global communities, persons of intellectual and moral courage, and scholars in the service of others.



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