



North  
Cross  
School

## 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.

# Junior Kindergarten-3

Junior Kindergarten-3 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 local area attractions.

## Prerequisites

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

## Language Arts

- Explanation and exercises for skills needed for reading and spelling based on the Reading Horizons Discovery curriculum
- 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
- Learn to recognize and manage strong emotions such as frustration, excitement, disappointment, and anger
  - Introduction to a three-step problem-solving model

## **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

## **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

# Junior Kindergarten-4

Junior Kindergarten-4 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 math activities. Speakers visit throughout the year. Students learn about marine mammals and adopt a dolphin named Talon from the Dolphin Research Center in Marathon, Florida. Students also go to the Virginia Children's Theatre to see a production.

## Language Arts

- Recognition of upper case letters and sounds, lower case letters, beginning and ending sounds, short 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
- Clear explanations of each skill needed for proficient reading and spelling based on the Reading Horizons Discovery curriculum

## 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 and other manipulatives
- Patterning skills
- Concept of addition and subtraction

## 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

## 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

## **Physical Education**

- 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

## **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

## **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



# Junior Kindergarten-5

This small class provides students with a differentiated experience and learning objectives tailored to their specific needs. Focus will be on the consolidation of basic language and mathematical skills, oral speaking and communication skills, and problem-solving skills. Additionally, there is a strong emphasis on character education, which provides students with extra time and support to develop social awareness and self-confidence. These students are guided and encouraged to become leaders and positive role models among their peers. Junior Kindergarten-5 class serves a variety of student needs; these include, but are not limited to, 1) students who have not been exposed to a formal school setting before, 2) students who do not quite (or barely) meet the age cutoff for a traditional kindergarten class and are ready for a more rigorous academic day than “preschool”, and 3) students who may have completed a traditional “pre-kindergarten” class but would be well served by an additional year before beginning in a kindergarten class to allow more time to develop skills.

## Language Arts

- Daily exposure to classic children’s literature
- Review of upper case letters and sounds, recognition of lower case letters
- Identification of beginning, middle and ending sounds, short and long vowel sounds, letter blends, word families, rhyming words
- Oral communication, presentation and performance skills
- D’Nealian handwriting
- Phonetic spelling, journal writing
- Introduction to sentence writing and punctuation
- Primer for *Explode the Code* series
- Clear explanations of each skill needed for proficient reading and spelling based on the Reading Horizons Discovery curriculum

## Mathematics

- Skills including counting up to and beyond 100, understanding 100’s charts and 10 frames, skip counting by 5’s and 10’s, graphing, collecting data, using tally marks, comparing quantities, writing numerals, using a number line, and an introduction to addition and subtraction
- Understanding geometric concepts such as patterns, shapes, and symmetry

- Hands-on measurement practice
- Use of Montessori materials and other manipulatives
- *Primary Mathematics* - Singapore Math Student Book A

## Science

- Introduction to concepts of physical science, earth science, and life science
- In depth monthly studies including: plant and bug life, habitats, reducing/reusing/recycling, the solar system, engineering/construction
- Hands-on experiments
- Individual and small group projects
- STEM activities

## Social Studies

- Awareness of self, family, and the world in which we live taught through social values, historical characters, holidays, and special events
- Examination of our many communities from school to city to country
- Study of the Earth’s geography using maps

## Creative Expression

- In-class activities coordinating with daily lessons
- Cooking, dramatic play, crafts

### **Creative Expression, *continued***

- Directed and free art

### **Spanish**

- Daily lessons
- 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

### **Music**

- Twice weekly lessons
- 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

### **Physical Education**

- Daily lessons
- 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

### **Guidance**

- Bi-weekly lessons
- Develop social-emotional awareness through active lessons
- Develop empathy skills by identifying emotions, assuming others' perspectives, and responding emotionally to others
- Learn to recognize, name and manage strong emotions
- Practice compromising with peers through role play and modeling
- Introduction to a three-step problem-solving model

### **Library**

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

# 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:

- Structured Literacy approach: Science of Reading-based program—Reading Horizons
- 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
- Texts:
  - Reading Horizons
  - *Explode the Code* — Educator's Publishing Service
  - *Beyond the Code* — Educator's Publishing Service
  - *Primary Phonics* — Educator's Publishing Service

## Mathematics

- Number bonds to 100
- 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
- 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



### **Spanish, *continued***

- 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**

- Three times per week
- 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

### **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

### **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 quality work, study habits, and independence are supported throughout the year. The Fabulous First Grade Flea Market, community guest speakers, and trips to Sinkland Farms and 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)

- Structured Literacy approach: Science of Reading-based program—Reading Horizons
- Small group instruction to meet the needs for individual readers
- Reading: picture books, chapter books, poetry, and nonfiction
- Writing: original stories with illustrations, personal experiences, factual information, persuasive writing, journals, letter writing, and biography study
- 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:
  - Reading Horizons
  - Scholastic News
  - Individualized reading supplements through decodable books and 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, an

overview of multiplication, and number sense

- 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: light and sound; fossils and dinosaurs; animal habitats; the human body; plants, pollination and the environment; severe weather; sun and moon/solar system
- Demonstration of knowledge through collaborative projects, writing assignments, experiments, games, open-ended questioning, and written assessments

## Social Studies

- Introduction to historical figures and events, understanding past and present
- 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

## 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 the Kids Heart Challenge 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

## 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

## 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

# 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. The Horizons of Reading 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. 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 as well as corresponding activities through art and music enrichment. An in-depth social studies unit on Africa includes a field trip to Safari Park and culminates in a live performance which incorporates art, music, and public speaking. The science curriculum includes a field trip to the Virginia Museum of Natural History.

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

- Structured Literacy approach: Science of Reading-based program – Reading Horizons
- Integrates 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:
  - Reading Horizons
  - Chapter books

- Interactive read-alouds

## **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 Science

## **Science**

- The performance expectations in second grade help students formulate answers to questions such as: "How does land change and what are some things that cause it to change? What are the different kinds of land and bodies of water? How are materials similar and different from one another, and how do the properties of the materials relate to their use? What do plants need to grow? How many types of living things live in a place?"
- Students are expected to develop an understanding of what plants need to grow and how plants depend

on animals for seed dispersal and pollination.

- Students are also expected to compare the diversity of life in different habitats. An understanding of observable properties of materials is developed by students at this level through analysis and classification of different materials.
- Students are able to apply their understanding of the idea that wind and water can change the shape of the land to compare design solutions to slow or prevent such change.
- Students are able to use information and models to identify and represent the shapes and kinds of land and bodies of water in an area and where water is found on Earth.
- The crosscutting concepts of patterns; cause and effect; energy and matter; structure and function; stability and change; and influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for these disciplinary core ideas.
- In the second grade performance expectations, students are expected to demonstrate grade appropriate proficiency in developing and using models, planning and carrying out investigations, analyzing and interpreting data, constructing explanations and designing solutions, engaging in argument from evidence, and obtaining, evaluating, and communicating information. Students are expected to use these practices to demonstrate understanding of the core ideas.

### **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, connections with literature
- Text: *People We Know* by Harcourt

### **Spanish**

- Daily instruction with an emphasis on oral skills and vocabulary and the gradual incorporation of more formal components of reading, grammar, and writing
- Early exploration of basic language structures and sentence writing
- Review of phonemic awareness and its relation to the written format for sustained fluency in reading skills
- Introduction to basic patterns of spelling for improved writing skills
- Consistent use of longer conversations including enriched vocabulary and expressions/chunks/phrases for inside and outside the classroom
- Reviews and recycling of skills and content through music, games, arts and crafts, "fun days", and other creative outlets
- Introduction to Global Studies topics through storytelling, role playing, projects, and special guests
- Monthly exploration of 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

### **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 the Kids Heart Challenge 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

### **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

# 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 is a highlight 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
- Comprehensive exploration of reading, delving into an array of literature resources
- Incorporation of grammar into both Reading and Social Studies curricula

## Mathematics

- Emphasis on conceptually exploring math through building number sense, done with daily practice of number talks to encourage students' comfort with mentally manipulating numbers and communicating math talk.
- Practice of mental strategies for multi-digit addition and subtraction, including place value, adding up, and compensation.
- Practice of mental strategies for multiplication and division, including repeated addition and arrays.

- Encouragement of risk taking and clear communication of math thinking.
- Increased emphasis on word problems by using a part/whole model and bar diagrams.
- Self-paced math centers, including small group instruction, technology, spiral review, and math games.
- Other topics covered: time, money, fractions, area and perimeter, basic geometry.
- Each unit culminates with a real-world math project to reinforce skill mastery.
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education

## Science

- Next Generation Science Standards-based curriculum.
- Interdependent relationships in ecosystems, including the study of bats and caves.
- Inheritance and Variation of Traits, Force and Motion, Adaptations, Life Cycles and Weather.
- Project-based learning: "Helping Bats" public service announcement, building an airplane from a cereal box, and planning and care of a pollinator garden.

## Social Studies

- In-depth study of the Commonwealth of Virginia
- Understand Virginia's geography and why the land was helpful or harmful to early exploration and settlement

### **Social Studies, *continued***

- Explore Virginia's native people and Colonial life
- Virginia landmark project
- Study world geography

### **Spanish**

- Daily instruction in speaking, listening, reading, writing, vocabulary, and grammar with the goal of sustained fluency
- Conversations inside and outside the classroom to enrich survival oral skills keeping an emphasis on fluency
- Extended reading comprehension skills
- Syllabification as a way of strengthening spelling
- Basic sentence writing and drills on sentence structure
- 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
- Exploration of more specific units of Global Studies through library books, Q&A with guest speakers, and discussion circles

### **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
- 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

### **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, creative expressions, sport skills, and games
- Participate in the Kids Heart Challenge, the Physical Fitness Tests, and dances for Colonial Day
- Understand the importance of exercise, nutrition, and personal hygiene
- Additional recess time provided each day

### **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

### **Library, *continued***

- Use technology resources for problem solving, communication, and illustration of thoughts, ideas, and stories
- Use online catalog to search library materials

### **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
  - 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, beginning algebra concepts and operations, measurement, geometry, and word

problem solving

- Exploration of place value and "number sense" with further study of the four operations of whole numbers: addition and subtraction, multiplication and division
- In-depth study of fractions and operations on fractions
- Text: *Singapore Math Program: Primary Mathematics* by Marshall Cavendish Education

## Science

- What it means to be a scientist—different types of scientific study
- Formal experimentation based on the scientific method
- Development of science skills: observation, description, prediction, and data collection
- Energy—definitions, conservation, relationship between energy and forces, energy in everyday life, and natural resources
- Waves—properties, information technologies and instrumentation, patterns, cause and effect
- Earth's Systems—history of the planet, materials and systems, structure and function, plate tectonics, biogeology, designing solutions to engineering problems
- Plants and animals—classifications and survival needs
- Planting and care for the Lower School Garden
- Inquiry-based and project-based instruction using STEAM principles
- Extensive biodiversity research project and public speaking skills



## 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 with emphasis on accuracy
- 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
- Analyzing Global Studies units from a compare-and-contrast perspective using a wide variety of resources and discussion circles with guest speakers

## 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

## 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

## 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 the Kids Heart Challenge 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

### **Library, *continued***

- 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 overnight trip to Washington, D.C., and a Greek symposium where students showcase their creative writing skills by writing their own myths.

## Language Arts

- Includes reading, word study, composition, and grammar
- Literature integrated with historical topics
- Historical novels, fiction, non-fiction, poetry, drama, and short stories
- Vocabulary, reading strategies, and fluency
- Analysis of plot structure, character, and themes
- Spelling with emphasis on word study patterns
- Constructing poems, multi-paragraph stories, and essays through the writing process
- Author's Breakfast presents student's self-published works of fiction
- Texts and literature:
  - *Boy of the Painted Cave* by Justen Denzel
  - *Save Me a Seat* by Gita Varadarajan and Sarah Weeks
  - *Maroo of the Winter Caves* by Ann Turnbull
  - *One Hot Mess* by Carmen Agra Deedy

## 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 first civilizations
- Classroom lectures, note-taking, textbook reading skills

- Cooperative team learning, hands-on activities including writing like ancient scribes on cuneiform tablets 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 with emphasis on accuracy
- 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
- Independent studying skills through guided homework assignments geared towards review and/or enrichment.
- Introduction to virtual learning platforms as part of a Middle School World Languages preparation.
- 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
- Analyzing Global Studies units from a compare-and-contrast perspective using a wide variety of resources and discussion circles with guest speakers

## 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

## 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

### **Physical Education, *continued***

- Develop team sport skills for volleyball, football, basketball, baseball/softball, and soccer
- Participate in the Kids Heart Challenge 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

### **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



# 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

### Two course options:

- **English 6:** traditional classroom style and setting, with majority direct instruction from teacher
  - **No Ceilings English 6:** self-paced, literature-based program with teacher as facilitator
  - 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:
    - *Wonder* by R.J. Palacio
    - Selected short stories and poetry
- English 6:
- Sadlier Vocabulary Workshop
  - *Where the Red Fern Grows* by Wilson Rawls
  - *The Hobbit* by J.R.R. Tolkien

### No Ceilings English 6:

- Prestwick House *Vocabulary from Latin and Greek Roots*
- Student selected works from No Ceilings reading list

## 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

## Science

- 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

Explore the physical universe and principles and skills that help scientists measure and understand properties of matter

- Study of the cell and characteristics of life
- A study of the atom
- Texts:
  - Pearson's Interactive Science: Earth, Life, and Physical Textbook Series (electronic and hard copy text)

## 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*, 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

## **Music, continued**

### **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+
- Students have the opportunity to audition for All-District Band

### **Concert Choir**

- Incorporates basic music theory, sight-singing skills, ear training, and healthy vocal techniques, continuing instruction from Lower School
- Two evening concerts during the year
- Students have the opportunity to audition for all-district choir

## **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 vaping, tobacco, marijuana, and alcohol use
- Identify risk factors associated with addiction
- Learn decision-making techniques
- Develop self-care strategies including stress management, time management, relationship management, and goal setting

# 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

### Two course options:

- **English 7:** traditional classroom style and setting, with majority direct instruction from teacher
- **No Ceilings English 7:** self-paced, literature-based program with teacher as facilitator
- Combination of literature 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:
  - *The Outsiders* by S.E. Hinton
  - *A Raisin in the Sun* by Lorraine Hansberry
  - Selected short stories and poetry
- English 7:
  - Sadlier *Vocabulary Workshop*
  - *The Giver* by Lois Lowry

- One of the following: *The Boy in the Striped Pajamas* by John Boyne, *Irena's Children* by Tilar J. Mazzeo, or *Prisoner B-3087* by Alan Gratz

No Ceilings English 7:

- Prestwick House *Vocabulary from Latin and Greek Roots*
- Student selected works from No Ceilings reading list

## 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)

## Science

- A study of the electromagnetic spectrum, light, and optics, including the biology of how plants and animals utilize visible light for survival
- An ecology unit focused on local hydrology, geology, watersheds, and various cycles on Earth
- 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

## Science, *continued*

- 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: Earth, Life, and Physical Textbook Series (electronic and hard copy text)

## 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
- Text: EMC Publishing's *T'es branché?* (digital text and 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!*

## **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 and Gala auction project
- 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+
- Students have the opportunity to audition for All-District Band

### **Concert Choir**

- Incorporates basic music theory, sight-singing skills, ear training, and healthy vocal techniques, continuing instruction from sixth grade
- Two evening concerts during the year
- Students have the opportunity to audition for all-district choir and could potentially audition for all-state choir

## **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

# 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 a river study trip. 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, *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-Part 2, and Geometry (TI-84 graphing calculator required for all courses)

## Science

- Integrates a range of fields including geology, physics, chemistry, biology and mathematics
- Major topics: energy resources, oceans, electricity, 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, Life, and Physical Textbook Series (electronic and hard copy text)

## Modern World History

This course covers major developments in world history from the end of the 15th century to the present day. Students will be introduced to historical concepts and topics ranging from the Enlightenment to the ideologies and wars of the 20th and 21st centuries. This course will show a broad cross-section of history and geographical study. Students will discover how various states and societies interacted and influenced each other through economic exchange, military conquest, and cultural assimilation.

- Learn a number of critical thinking and writing skills relevant to history as well as other social studies disciplines with an emphasis on human and physical geography
- Primary source analysis using document based questions to form effective and convincing arguments orally and in writing



### **Modern World History, *continued***

- Learn how to make connections between historical events and present-day issues
- View events from a variety of perspectives through the use of fiction and nonfiction, primary and secondary sources
- Texts:
  - Jackson J. Spielvogel's *Glencoe World History: Modern Times*

### **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, or chorus 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 and Gala project
- 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

# 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. The academic rigors of the Upper School include an eight-period schedule, formal exams in December and June, and approximately two hours of homework each school night. Ninth graders, along with the rest of the Upper School students, complete 12.5 hours of community service each year, experience a variety of activity programs, and participate in the annual Symposium program.

## 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*
  - Markus Zusak's *The Book Thief*
  - Shakespeare's *The Merchant of Venice*
  - Chinua Achebe's *Things Fall Apart*
  - Margaret Atwood's *The Penelopiad*

## Mathematics

- Course placement determined by individual student's previous year's math class and performance
- Offerings include Algebra 1-Part 2, Geometry, Algebra 2

## 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
- Students are encouraged to take advantage of school-sponsored trips abroad for language immersion experiences or for exposure to the history and culture connected to the languages taught in the Department

## 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: *Biology*, 10th Edition by Raven, Johnson, Mason, Losos, and Singe

## History

Introduction to Global Studies

- Interdisciplinary course designed for students to better understand our world and contemporary events
- Familiarize students with recent, current, and future global issues
- Topics range from population, economic development, environmental and resource issues, and food and energy concerns

## History, continued

- Texts: *Global Issues: An Introduction and Prisoners of Geography*
- 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)
  - Chorale
  - Introduction to Studio Art
  - Graphic Design
  - Symphonic Band

## Additional Electives

- May require permission of the teacher or department chair and/or have prerequisites
- Required for all 9th grade students: Life Skills - a noncredit course that expands on social-emotional learning. Topics include stress management, self care, substance abuse, maintaining healthy relationships, sexuality, effective communication and technology use.
- Full-year electives (three credits each)

**FAD = Fine Arts Distinction, GS = Global Studies Distinction, ST = STEM Distinction**

- Yearbook (FAD\*)
- Journalism (FAD\*)(GS)
- Introduction to Graphic Design (ST)(FAD)
- Intermediate Graphic Design (ST)(FAD)
- Advanced Graphic Design (ST)(FAD)
- Introduction to Studio Art (FAD)
- Intermediate Studio Art (FAD)
- Advanced Studio Art (FAD)
- Portfolio (FAD)
- AP Studio Art (FAD)
- Symphonic Band (FAD)
- Chorale (8th-12th grades) (FAD)
- Astronomy (ST)
- AP Physics (ST)
- AP Biology (ST)

- AP Chemistry (ST)
- AP World History (GS)
- AP European History (GS)
- Introduction to Computer Science (ST)
- AP Computer Science A (ST)
- AP Computer Science Principles (ST)
- Sports Business/Entrepreneurship
- Economics and Personal Finance
- Introduction to Engineering (ST)
- AP Human Geography (GS)
- Forensic Science (ST)
- Term electives (one credit each)
  - Film Studies (FAD): Fall, Winter, and Spring Terms
  - Localism/Political Leadership: Spring Term
  - Public Speaking: Fall Term
  - Shakespeare: Winter Term
  - Leadership Development : Winter Term
  - Creative Writing: Fall Term
  - Introduction to Theatre (FAD): Fall Term
  - History and Film (FAD): Winter Term
  - Who are the Russians?: Fall Term
  - Theatre Arts: Production Tech (FAD): Winter Term
  - Theatre Arts: Acting (FAD) Spring Term
  - Art of the 21st Century (Fall Term) (FAD)
  - Gallery Studies (FAD): Spring Term
  - Philosophy, Evolutionary Psychology, and Other Stuff: Fall and Spring Terms
  - Introduction to Aviation (ST): Fall Term
  - Aerospace History (ST): Winter Term
  - Aerospace Engineering (ST): Spring Term
  - Introduction to Psychology: Spring Term
  - Introduction to Italian Language and Culture: Fall Term

## 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

# 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 activity programs, and participate in the annual Symposium program.

## English

- Exploration of American literature as both text and culture
- Increased emphasis on the relationship between critical reasoning and oral and written analysis
- Texts:
  - Walter Van Tilburg Clark's *The Ox-Bow Incident*
  - F. Scott Fitzgerald's *The Great Gatsby*
  - Nella Larsen's *Passing*
  - Arthur Miller's *The Crucible*

## Mathematics

- Course placement determined by individual student's previous year's math class and performance
- Offerings include Geometry, Algebra 2, College Algebra and Trigonometry, Precalculus

## 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

- Students are encouraged to take advantage of school-sponsored trips abroad for language immersion experiences or for exposure to the history and culture connected to the languages taught in the Department

## Science

### 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, properties of solutions and nuclear chemistry
- Conceptual Chemistry is offered as a non-math-based option
- Honors Chemistry is offered to meet the needs of more advanced students
- Text: Pearson's iBook *Chemistry*

## History

Students choose one of the following courses:

### Modern World History

- Study of the major developments in world history from the 15th century to the present
- Examine how the interconnections between societies, cultures, and economies have influenced the scope and direction of our shared history
- Gain and apply critical thinking and writing skills in order to effectively analyze primary sources and communicate arguments about 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)
  - Introduction to Studio Art
  - Intermediate Studio Art\*
  - Graphic Design I
  - Graphic Design II\*
  - Chorale
  - Symphonic Band

\* Indicates that prerequisite is required

### Additional Electives

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

**FAD = Fine Arts Distinction, GS = Global Studies**

**Distinction, ST = STEM Distinction**

- Yearbook (FAD\*)
- Journalism (FAD\*)(GS)
- Introduction to Graphic Design (ST)(FAD)
- Intermediate Graphic Design (ST)(FAD)
- Advanced Graphic Design (ST)(FAD)
- Introduction to Studio Art (FAD)
- Intermediate Studio Art (FAD)
- Advanced Studio Art (FAD)
- Portfolio (FAD)
- AP Studio Art (FAD)

- Symphonic Band (FAD)
- Chorale (8th-12th grades) (FAD)
- Astronomy (ST)
- AP Physics (ST)
- AP Biology (ST)
- AP Chemistry (ST)
- AP World History (GS)
- AP European History (GS)
- Introduction to Computer Science (ST)
- AP Computer Science A (ST)
- AP Computer Science Principles (ST)
- Sports Business/Entrepreneurship
- Economics and Personal Finance
- Introduction to Engineering (ST)
- AP Human Geography (GS)
- Forensic Science (ST)
- Term electives (one credit each)
  - Film Studies (FAD): Fall, Winter, and Spring Terms
  - Localism/Political Leadership: Spring Term
  - Public Speaking: Fall Term
  - Shakespeare: Winter Term
  - Leadership Development : Winter Term
  - Creative Writing: Fall Term
  - Introduction to Theatre (FAD): Fall Term
  - History and Film (FAD): Winter Term
  - Who are the Russians?: Fall Term
  - Theatre Arts: Production Tech (FAD): Winter Term
  - Theatre Arts: Acting (FAD) Spring Term
  - 735 Art of the 21st Century (Fall Term) (FAD)
  - Gallery Studies (FAD): Spring Term
  - Philosophy, Evolutionary Psychology, and Other Stuff: Fall and Spring Terms
  - Introduction to Aviation (ST): Fall Term
  - Aerospace History (ST): Winter Term
  - Aerospace Engineering (ST): Spring Term
  - Introduction to Psychology: Spring Term
  - Introduction to Italian Language and Culture: Fall Term

### **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 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 College Night in February and an individual meeting with each student and his/her parents/guardians before the end of the spring 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 activity programs, and participate in the annual Symposium program.

## English

Students choose one of the following courses:

### British Literature

- 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 *Hamlet*
  - Aesthetically and historically significant short stories from authors such as Dickens, Chesterton, and Joyce

### AP English Language and Composition\*

- A fast-paced course designed for students who love reading and discussing literature
- Texts drawn from traditional canons of drama, fiction, and poetry, as well as modern selections
- Students will gain a deeper understanding of how literary elements in a text create its potential meanings and apply this understanding to individual texts through rigorous oral and written analysis

## Mathematics

- Course placement determined by individual student's previous year's math class and performance

- Offerings include Geometry, Algebra 2, College Algebra and Trigonometry, Precalculus, Calculus, AP Calculus AB, AP Calculus BC, and AP Statistics

## 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
- Students are encouraged to take advantage of schoosponsored trips abroad for language immersion experiences or for exposure to the history and culture connected to the languages taught in the Department

## Science

### Physics

- Algebra-based course that incorporates lectures, laboratories, demonstrations, homework, and in-class problem-solving and quantitative reasoning
- Builds upon science and math skills developed in previous courses of study
- Major topics: scientific literacy, kinematics, Newton's laws of motion, conservation laws, rotational motion, oscillatory motion, and gravity
- Text: *Physics* (High School) from Openstax by Urone et al, 2020

## History

Students choose one of the following courses:

### United States History

- General survey of the United States from discovery to the present
- Emphasize skill development in order to ensure that students prepare for the reading, research, and writing abilities required in college
- Texts:
  - Alan Brinkley's *The Unfinished Nation*

### AP 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
- Texts:
  - Alan Brinkley's *The Unfinished Nation*
  - *Cracking the AP United States History Exam* (AP workbook)

## Fine and Performing Arts

- Graduation requirement of three credits
- Full-year electives (three credits each)
  - Introduction to Studio Art
  - Intermediate Studio Art\*

- Advanced Studio Art\*

- Graphic Design I

- Graphic Design II\*

- Chorale

- Symphonic Band

\* Indicates that prerequisite is required

## Additional Electives

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

**FAD = Fine Arts Distinction, GS = Global Studies Distinction, ST = STEM Distinction**

- Yearbook (FAD\*)

- Journalism (FAD\*)(GS)

- Introduction to Graphic Design (ST)(FAD)

- Intermediate Graphic Design (ST)(FAD)

- Advanced Graphic Design (ST)(FAD)

- Introduction to Studio Art (FAD)

- Intermediate Studio Art (FAD)

- Advanced Studio Art (FAD)

- Portfolio (FAD)

- AP Studio Art (FAD)

- Symphonic Band (FAD)

- Chorale (8th-12th grades) (FAD)

- Astronomy (ST)

- AP Physics (ST)

- AP Biology (ST)

- AP Chemistry (ST)

- AP World History (GS)

- AP European History (GS)

- Introduction to Computer Science (ST)

- AP Computer Science A (ST)

- AP Computer Science Principles (ST)

- Sports Business/Entrepreneurship

- Economics and Personal Finance

- Introduction to Engineering (ST)

- AP Human Geography (GS)

- Forensic Science (ST)

## **Additional Electives, *continued***

- Term electives (one credit each)
  - Film Studies (FAD): Fall, Winter, and Spring Terms
  - Localism/Political Leadership: Spring Term
  - Public Speaking: Fall Term
  - Shakespeare: Winter Term
  - Leadership Development : Winter Term
  - Creative Writing: Fall Term
  - Introduction to Theatre (FAD): Fall Term
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  - Introduction to Aviation (ST): Fall Term
  - Aerospace History (ST): Winter Term
  - Aerospace Engineering (ST): Spring Term
  - Introduction to Psychology: Spring Term
  - Introduction to Italian Language and Culture: Fall Term

## **Athletic Requirement**

- Must participate in three athletic seasons during their four year 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. By the time a student reaches the Upper School, they are well versed in the art of crafting an essay, uncovering research with integrity, and critically evaluating the ideas and theories of others. As a final exercise of both our public speaking and writing programs, each senior delivers a speech at assembly that is based in academic research and the result of a written research paper of at least ten pages. Seniors are paired with a faculty advisor as they read and research a topic of the senior's choosing. This project highlights the ability of North Cross School students to read, research, organize, write, and then confidently deliver a fifteen-minute speech and presentation to a crowd approaching 200 people. Our STEM distinction students use this opportunity to present their original research, and later, host a poster presentation illustrating their projects.

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 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 activity programs, and participate in the annual Symposium program.

## English

Students choose one of the following courses:

### Thematic Literature

- Focus on world literature
- Themes: identity and estrangement
- Emphasis on research methods and writing
- Focus on connections among major literary texts
- Texts:
  - Sophocles' *Antigone*
  - Ian McEwan's *Black Dogs*
  - Jhumpa Lahiri's *The Namesake*
  - Leslie Marmon Silko *Ceremony*

### AP English Literature\*

- Selection of texts:
  - Works by Sophocles
  - Nathaniel Hawthorne's *House of the Seven Gables*
  - Ralph Ellison's *Invisible Man*
  - William Shakespeare's *Othello*
  - Kazuo Ishiguro's *Never Let Me Go*

## Mathematics

- Course placement determined by individual student's previous year's math class and performance
- Offerings include Algebra 2, College Algebra and Trigonometry, Precalculus, Calculus, AP Calculus AB, AP Calculus BC, and AP Statistics

## 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

## World Languages, *continued*

- Student placement depends upon their achievement in previous language classes
- Students are encouraged to take advantage of school-sponsored trips abroad for language immersion experiences or for exposure to the history and culture connected to the languages taught in the Department

## Science

- Full-year electives (three credits each)
  - AP Biology
  - AP Chemistry
  - AP Physics
  - Astronomy
  - Environmental Studies
  - Introduction to Forensic Science

## History

Students choose one of the following courses:

### 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*

### AP Comparative Government

- 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

## Fine and Performing Arts

- Graduation requirement of three credits
  - Full-year electives (three credits each)
    - Introduction to Studio Art
    - Intermediate Studio Art\*
    - Advanced Studio Art\*
    - Portfolio\*
    - AP Studio Art\*
    - Graphic Design I
    - Graphic Design II\*
    - Chorale
    - Symphonic Band
- \* Indicates that prerequisite is required

## Additional Electives

- May require permission of the teacher or department chair and/or have prerequisites

- Full-year electives (three credits each)

**FAD = Fine Arts Distinction, GS = Global Studies**

**Distinction, ST = STEM Distinction**

- Yearbook (FAD\*)
- Journalism (FAD\*)(GS)
- Introduction to Graphic Design (ST)(FAD)
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- Advanced Studio Art (FAD)
- Portfolio (FAD)
- AP Studio Art (FAD)
- Symphonic Band (FAD)
- Chorale (8th-12th grades) (FAD)
- Astronomy (ST)
- AP Physics (ST)
- AP Biology (ST)
- AP Chemistry (ST)
- AP World History (GS)

### **Additional Electives, *continued***

- AP European History (GS)
- Introduction to Computer Science (ST)
- AP Computer Science A (ST)
- AP Computer Science Principles (ST)
- Sports Business/Entrepreneurship
- Economics and Personal Finance
- Introduction to Engineering (ST)
- AP Human Geography (GS)
- Forensic Science (ST)
- Term electives (one credit each)
  - Film Studies (FAD): Fall, Winter, and Spring Terms
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  - Creative Writing: Fall Term
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  - Introduction to Aviation (ST): Fall Term
  - Aerospace History (ST): Winter Term
  - Aerospace Engineering (ST): Spring Term
  - Introduction to Psychology: Spring Term
  - Introduction to Italian Language and Culture: Fall Term
  - Film as Literature
  - Introduction to Film Studies
  - Introduction to Formal Logic
  - Introduction to Greek Mythology
  - Leadership Development
  - Localism/ Political Leadership
  - Public Speaking
  - Shakespeare

### **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

science · technology · engineering · math

# STEM@NCS

## CERTIFICATE PROGRAM

### REQUIREMENTS

Students must earn at least 400 points to receive the certificate at graduation. Completing STEM courses, participating in clubs and activities related to STEM-based initiatives, attending outside field-related seminars and activities all count toward this goal.

A points-earning activity required of all students in the program is completing a summer STEM book reflection and attending a discussion seminar about it.

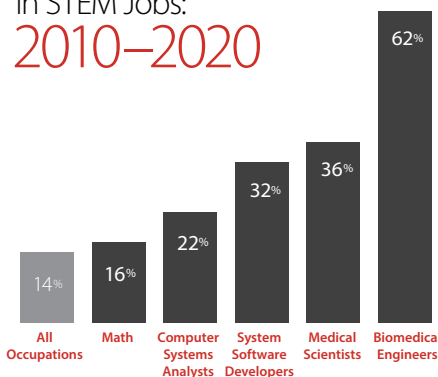
Students must also complete a STEM capstone project and speech as their senior research project.

In addition to core graduation requirements, students must complete the following with a **minimum grade of a B** :

- Two computer science courses
- Two of the following:
  - » AP Chemistry
  - » AP Physics
  - » AP Biology
- AP Calculus AB

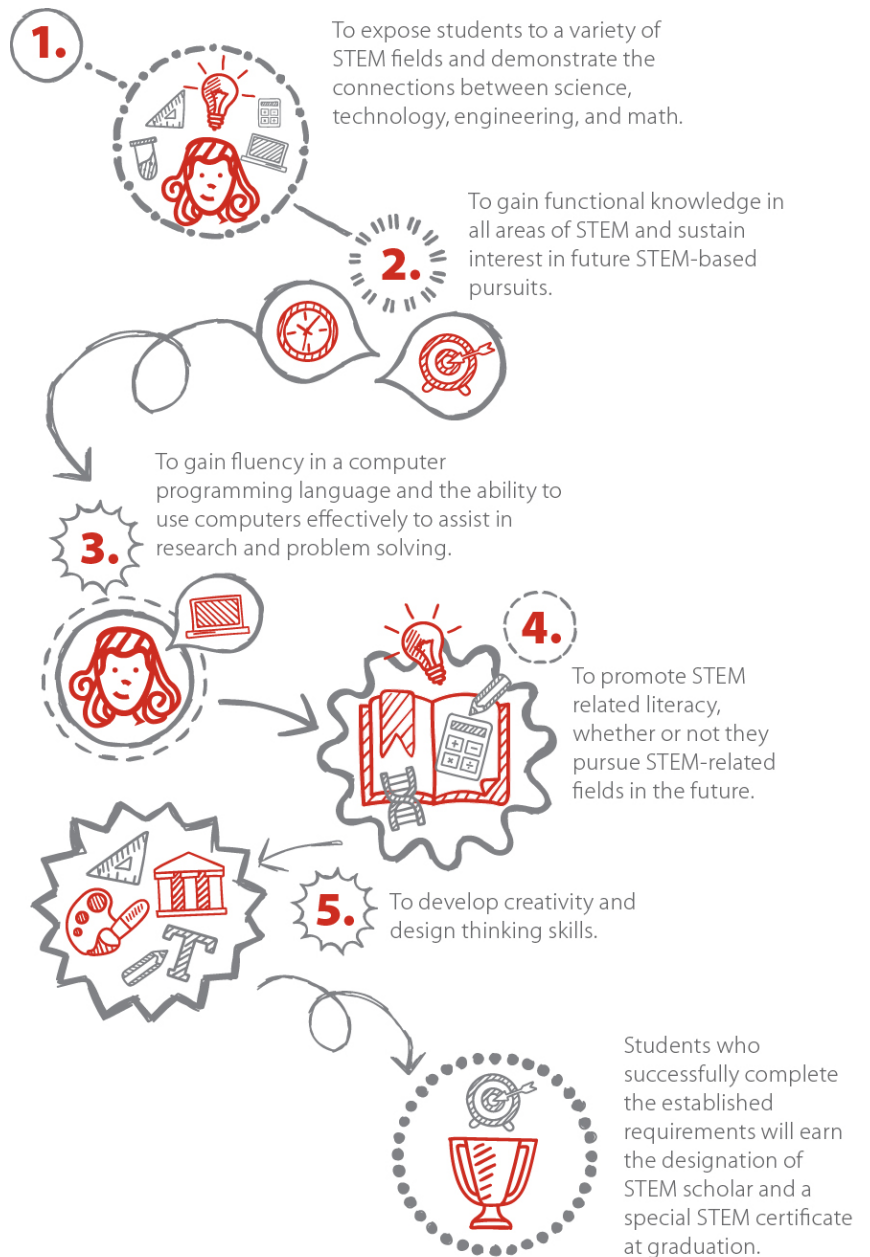
Technology is pervasive in almost every aspect of daily life, and as the workplace changes, STEM knowledge and skills grow in importance for all workers, not just mathematicians and scientists.

### Projected Percentage Increases in STEM Jobs: 2010–2020



Source: <http://www.ed.gov/stem>

### GOALS OF THE PROGRAM



For more information on the program and participation requirements, email Jennifer Landry (jlandry@northcross.org) or Mike Koss (mkoss@northcross.org).





## Horace G. Fralin Program for **Global Studies** AT NORTH CROSS SCHOOL

The Horace G. Fralin Global Studies Program at North Cross School is designed to make students more aware, interested, and engaged in a globalized and interconnected world. Through interdisciplinary coursework and experiential education, students will become more knowledgeable and engaged in 21st century issues with greater international outlook, insight, and perspective. Students who successfully complete the established requirements will earn the designation of Global Studies Scholar on their transcript and receive a special diploma upon graduation.



The Global Studies Program combines specialized electives and seminars with international travel and various additional cultural activities to provide a unique 21st-century curriculum and perspective.

**Seminars** are intended to enhance and support the Global Studies Program and curriculum and are designed to be student-centered. Seminar themes have included vital global issues such as water,

women's rights in the 21st century, and war. Faculty and students seek ways to connect each year's theme with off-campus events and international travel.

**International experiences** are a key component to a student's full understanding of and appreciation for the 21st century. Students will have the opportunity to participate in a wide range of trips that include service learning, language immersion, adventure-travel, or cultural and historical study. These international expeditions will provide new insights, understanding, and respect that are only achieved through travel.

Through the integration and careful reflection of their coursework and experiences, a Global Studies Scholar will have a distinct appreciation and understanding of our world.

### GOALS OF THE PROGRAM

A participant in the Global Studies Program will:

1. appreciate the complexity and fusion of interdisciplinary course work;
2. value the commonalities that are universal to all cultures;
3. understand that globalization creates opportunities and challenges;
4. realize the wide range of existing human circumstances and conditions around the world;
5. develop a mindset of stewardship and sustainability for the world and its resources; and
6. envision that their roles in the world as global citizens can make a difference.

### PROGRAM HIGHLIGHTS

#### Interdisciplinary Academics

Students will need to fulfill all current graduation course requirements plus additional requirements and expectations of the Global Studies Program.

#### Travel Opportunities

Past destinations have included Spain, France, Italy, China, Argentina, Peru, Costa Rica, and New Zealand.

#### Model United Nations

At the Harvard and National High School Model United Nations conferences, students develop the complex diplomatic skills necessary to represent a country.

#### Cultural Exchange with Visiting Students

Recently the school began an exchange program with Escuela Italiana in Mendoza, Argentina through which North Cross families can host visiting students.



“The arts have been an inseparable part of the human journey; indeed, we depend on the arts to carry us toward the fullness of our humanity.”

—NATIONAL STANDARDS FOR ARTS EDUCATION

The Fine Arts Distinction at North Cross School is designed to foster a life-long love of the arts in its students and to promote serious study and high-level accomplishment. Through coursework, outside-of-school activities and experiences, along with real-world exhibits and performances, students work to hone their craft, whether in the studio or on stage. Students who successfully complete the program requirements will receive a special diploma upon graduation.

### GOALS OF THE PROGRAM

1. To **inspire** students to become immersed in a field of art, music, or theater.
2. To **strive** toward the highest levels of skill, achievement, and creativity in art, design, music, and theater through continual practice, performance, and reflection.
3. To **encourage** students to seek interconnectedness between the arts and other disciplines.
4. To **promote** endeavors in the fine arts, whether or not in pursuit of an arts-related field in the future.
5. To **honor** students who have dedicated their talents to the development of the fine arts at North Cross School.

### REQUIREMENTS

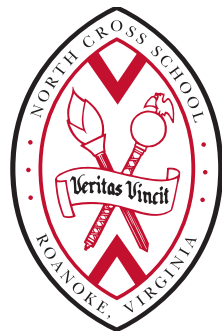
Students must earn at least 500 points between ninth and twelfth grade to receive the distinction at graduation. Coursework, activities related to fine arts initiatives, and outside seminars and performances all count toward this goal.

Among the points earned for completing certain elective activities, there are four additional required elements: summer reading; an arts-related DeHart Project; the completion of a senior performance or show; and a comprehensive program self-evaluation.



For more information and program requirements, email Amy Jackson, Fine Arts Department Chair at [ajackson@northcross.org](mailto:ajackson@northcross.org).

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 (age 3) 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.



# North Cross School