

**BUCKINGHAM BROWNE & NICHOLS  
LOWER SCHOOL**



**CURRICULUM OVERVIEW  
GRADE FOUR  
2026-2027**

## **Grade Four Teachers**

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**\* Includes Language Arts, Mathematics and Social Studies instruction**

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# **GRADE FOUR CURRICULUM OVERVIEW**

## **Language Arts**

Language Arts activities and lessons are taught daily and focus on developing skills in the areas of listening, speaking, reading and writing. Lessons are often integrated with other curricular areas. In fourth grade:

- Reading instruction focuses on comprehension and analysis of a variety of fiction and non-fiction texts.
- Read alouds and independent reading occurs on a regular basis in class, and children are expected to read at home daily.
- Children participate in literature circles to build meta-cognitive skills and practice peer discussions.
- Students develop the process of writing, which includes drafting, conferencing with peers or teachers, improvements through revising and editing.
- Students also use pre-writing strategies such as graphic organizers to plan their writing on some assignments.
- Grammar and mechanics are taught as group lessons and may be reviewed individually during teacher or peer conferences.
- Students experiment with writing various genres
- Spelling rules and patterns are reviewed and taught. Additional spelling words and vocabulary come from reading material and word frequency lists.
- Handwriting instruction builds fluency in cursive and extends usage with the goal of using cursive for some assignments.
- Formal and informal assessments and evaluations occur throughout the year.
- Reading specialists work with the homeroom teachers to plan consistent, interconnected lessons and to provide additional support for children who are in need of further help in developing language arts skills.

## **Social Studies**

The social studies curriculum aligns with the science program, and begins with an in-depth study on electricity and different forms of renewable energies. Through readings, cooperative projects, research and discussion, students develop and practice skills while becoming more aware of environmental issues. Students examine their relationship with nature, and explore the ideas of conservation and stewardship. Students also investigate the natural resources that exist across the fifty states and abroad.

Students learn valuable research skills as they explore four sources of renewable energy (fuel cell, wind, solar, and hydro), and interact with experts both on and off campus to further their understanding of how these energy sources work. Students use various platforms to educate others on sustainability, and the importance of renewable energies for the future of the planet. Through exhibits and publications, students develop their communication and presentation skills.

In the later part of the year, the curriculum shifts to focus on how change is created through systems, and how people can bring about change through advocacy.

## Mathematics

At BB&N we believe that math should be joyful and engaging. Our program grows children's fluency with numbers and is rich in numbers-based experiences. We provide opportunities at every level for students to engage in mathematical explorations, to reason mathematically, and to express their ideas. We strive to strike a balance between larger conceptual understandings and specific skills and procedural fluency. We believe that all of our students can and will learn math.

Fourth graders solidify the foundation of whole number operations, building their proficiency with multiplication and division. They extend multiplication and division to multi-digit numbers and begin developing conceptual understanding of powers of ten. Students extend their knowledge of the number system to decimals. In fourth grade, students build a conceptual understanding of fractions and begin working with fraction operations and applications. They begin working on understanding the difference between expressions and equations, a building block that prepares them for Algebra. Angles in triangles are used to extend the students' ability to classify shapes.

Fourth grade uses high quality, research based resources including the *Bridges in Mathematics* curriculum. Classes are co-taught by the homeroom teacher and a math specialist with an interactive approach in whole group investigations, small group activities, and individual practice. Students continue having math homework a few times a week.

In fourth grade students will:

- Work with the number system in whole numbers and decimals
- Fluently multiply and divide multi-digit numbers using a variety of mental math strategies, including the standard algorithm for multiplication
- Use efficient strategies to model and solve multi-operation problems with all operations
- Represent problems using expressions and equations
- Represent decimals visually using base ten blocks, sketches, and number lines
- Read, write, compare, and order decimals
- Round decimals to a given place value
- Find factor pairs for a number and find common multiples
- Find equivalent fractions, compare and order fractions
- Add and subtract fractions with common denominators
- Multiply a fraction by a whole number
- Classify regular and irregular polygons using attributes such as angles and lines
- Use a protractor to accurately draw and measure angles

## Science

The fourth grade curriculum emphasizes exploration, collaboration, and innovation. Our highly integrated curriculum combines science, social studies, reading, writing and art to create a year long study on sustainability. Connections are drawn between the different subject areas, and students are able to view all these topics through different perspectives, whether it be through the lens of a scientist, a poet, an artist or a critical thinker. Woven throughout the curriculum are discussions on values, respect, and the responsibility our students have as members of our community, and of the world. The curriculum is aligned with BB&N's Global Competencies Framework. As such, the curriculum allows fourth graders to develop a global mindedness that can carry them beyond our classroom as they become lifelong learners and effective activists for change.

Below are some highlights of the topics and skills that fourth grades employ in science.

### Practicing Observation, Experimentation Skills and Communication

- Close observation and recording of the natural world.
- Investigate the properties of a lens while observing.
- Learn the parts of a microscope and its correct use.
- Use the microscope to observe a natural object and create a detailed scientific drawing.
- Research the natural object and write a fact based poem to accompany the observational drawing.

### Fossil Fuels, Alternative Energy Sources and the Environment

- Acquire note taking and research skills to understand Energy.
- Design and build electric generators that can power an LED bulb using copper wire, cardboard and magnets.
- Discuss common environmental and relevant environmental problems occurring in the world, including climate change.
- Compare and contrast different means of producing electricity from burning fossil fuel to clean technologies.
- Investigate solar, wind, and hydropower technologies while assembling science kits.
- Recommend sources of energy that will be the most effective and sustainable for cities.

### Astronomy/Space

- Research the solar system to understand which planets could be habitable in the future and why.
- Research transportation, food, water, waste and shelter in space and what humans need to survive.
- Choose a location and design a sustainable city in space.
- As a whole half group, present and share models for their plan for their sustainable city in space.

## **Lower School World Languages**

Our goal is to help students to build a foundation for future language learning and to be prepared to communicate as global citizens of an interconnected world. To do this, we want to highlight and embrace student identities and provide an environment where they are comfortable taking risks and applying a growth mindset to language learning.

The Lower School World Language Department uses an approach to teaching languages that focuses on proficiency and communication in an engaging and low stress environment. Teaching with comprehensible input prioritizes the delivery of understandable messages that are personalized, meaningful, interesting and relevant to our students. The goal of our classes is for students to acquire Spanish or French through communication and active participation. When age appropriate, we aim to spend at least 90% of our classes in the target language focusing on listening and reading to provide input (as opposed to formal vocabulary and grammar instruction).

We also strive to provide opportunities to explore other cultures and to do interdisciplinary work that allows students to connect and expand upon what they are learning in other places.

Fourth graders explore Spanish or French twice a week for 45 minutes each time. Spanish students continue to build upon their foundational skills from B-3 while French students are beginning the language for the first time. In both languages, speaking/listening warm-ups, daily routines and closing activities create predictable structure to support confidence and practice content learned in class. Students are expected to speak the target language in class, and are supported and encouraged to do so with a variety of strategies. Class content strives to be engaging, focused on high-frequency words, and connected to meaningful content for the student. Repetition and spiral techniques allow students to begin to build proficiency and overall comfort in the language. Typical classroom activities include songs, reading, story listening, drawing, writing, short video clips, projects, role playing, and games.

## **Information Science/Library**

Fourth grade students visit the library once a week in half groups for book selection, book talks, search skills and stories. Topics covered include:

- Practice using sites like FEMAkids, NASAkids, Google Earth, World Book Student Online and World Atlas online to find information.
- Using the school library catalog to locate books by author, title, keyword and subject.
- Using and comparing print nonfiction and electronic materials such as National Geographic Kids and articles they find using 'Kiddle'.
- Using websites posted on the school library homepage to explore different kinds of information.

## Information Science/Library (continued)

- Practice choosing appropriate sources to gain confidence with using different reference tools.
- Discussing literature in small and whole group settings; using terms of character, setting, plot, themes and point of view, as well as personal response.
- Writing short book reviews to post on the school library website.

## Technology

At the BB&N Lower School, it is our intention to integrate technology into the classroom in meaningful ways, and our goal is to teach students the skills necessary to be successful throughout the school year as well as to prepare them for future years.

Fourth grade is the “**Learn It**” year in BB&N’s three-year Technology and Computer Science arc. Students establish the foundational knowledge, skills, vocabulary, and learning habits they will revisit with increasing complexity and independence in Grades 5 and 6. No prior coding experience is expected; instruction is designed so that both new and experienced learners encounter appropriate challenges.

The curriculum uses technology as a vehicle for learning how to think, create, collaborate, and act responsibly. Students learn that planning, testing, debugging, revising, and reflecting are normal parts of meaningful work. This approach supports BB&N’s commitment to inquiry, kindness, integrity, belonging, equitable learning, student voice, authentic assessment, and self-reflection.

## Grade-Level Focus

In Grade 4, students:

- Build safe, responsible routines for using school devices and digital accounts.
- Develop an age-appropriate understanding of privacy, security, personal information, and artificial intelligence.
- Learn foundational Scratch programming concepts through guided exploration and personally meaningful projects.
- Practice abstraction by identifying the information that matters most in a problem.
- Apply computational thinking through hands-on robotics and engineering challenges.
- Learn collaborative routines that ensure every student has a meaningful role and voice.
- Begin creating a portfolio that makes learning, revision, and growth visible.

## **Technology (continued)**

### **Curriculum Strands**

#### **Staying Safe: Privacy, Security & AI**

Students learn to lock and care for a device, create secure credentials, recognize suspicious links, use trusted networks, and identify personal information that should not be shared online. They explore what artificial intelligence is and is not, how digital tools may use data, and why thoughtful choices protect both individuals and the wider community.

#### **Citizenship & Kindness Online**

- Students examine what respectful, ethical participation looks like in digital spaces. They discuss and follow a technology-use agreement, practice the S.T.A.N.D. framework for responding when someone is targeted online, and consider how group-chat behavior can include or exclude others. Lessons on influencers, phishing, and common “thinking traps” help students pause, question, and make informed choices.

#### **Coding & Creating**

Students become comfortable using Scratch as a creative programming environment. They use motion, visual effects, sound, loops, sensing, comparisons, and events to create interactive projects. Students publish selected work to class or personal studios, explain how their programs work, seek feedback, and improve their projects through revision.

#### **Problem-Solving Habits**

Students learn to define a problem before trying to solve it. Through abstraction, they identify important actors, information, and constraints while setting aside details that do not affect the solution. They sketch ideas, organize steps, test one change at a time, and treat unexpected results as useful evidence rather than failure

Students transfer computational thinking into the physical world through proximity and payload-delivery challenges. They measure distances, calibrate sensors, develop and test code, and refine a solution based on observations. Team roles rotate deliberately so that students practice listening, shared responsibility, leadership, and inclusive decision-making.

## **Technology (continued)**

## **Teaching and Learning**

Learning experiences combine explicit instruction, teacher modeling, guided practice, collaborative challenges, and structured opportunities for choice. The curriculum provides multiple ways to access information, stay engaged, and demonstrate understanding.

## **Music**

Curriculum Statement: Fourth grade students will engage in practicing, performing, improvising, and creating music using their voice, various types of drums, and other percussion instruments. All concepts listed below will be explored through a diverse repertoire of songs while highlighting various indigenous and oral tradition based music genres. Students will engage in listening exercises to expand their knowledge of different styles of music and will also explore the historical background and contextual aspects of the repertoire.

### **Key Musical Concepts:**

- Rhythm
  - Explore rhythmic concepts of: syncopation, polyrhythm, ostinato, call and response, and improvisation
  - Listen to, perform, and identify time signatures and rhythms building on concepts covered in grade 3.
    - Time signatures: 12/8
    - Sixteenth notes, eighth and sixteenth note variations

### **Melody and Harmony**

- Utilize solfege to identify treble clef notes, major/minor/major pentatonic scales
- Learn 2- or 3-part split vocal pieces and multi-instrumental accompaniments
- Demonstrate artistic melodic phrasing on voice and various classrooms instruments utilizing proper technique
- Identify and read treble clef keys and melodic passages using solfege
- Learn various songs

### **Form and Composition**

- Listen to, identify, learn, and perform multi-part vocal and instrumental pieces
- Compose and improvise multi-instrumental arrangements

### **Articulation, Dynamics, and Tempo**

- Continue work from grade 3 to identify proper forms of musical articulation, dynamics, and tempo as appropriate to the musical literature explored
- Students will focus on deep listening skills, rote instruction, intuiting the music, and the improvisatory aspects of the genres explored.

## Music (continued)

- Timbre
  - Watch, listen to, discuss, and identify musical instruments using the Western European Classical model (brass, woodwind, percussion, and strings) and the [Hornbostel-Sachs](#) classification system.

## Integrated Arts

The goal of fourth grade art is for learners to gain exposure to a wide variety of artistic ideas. Through exploring cultural traditions, art history, and contemporary art, students come to understand that there are many ways to be an artist. Children investigate various materials, techniques, approaches, and styles. They have opportunities to reflect on the subject matter, ideas and aesthetics that excite them, and consider ways they hope to grow as makers and artists. They are also given time and space to play and experiment to discover new methods of their own. In short, students are encouraged to have an open, creative mind.

Fourth graders also begin to take greater ownership over our studio and its material resources. They learn to use tools and materials safely, and they are expected to play an active role in organizing and maintaining our space. As the school year progresses, they gradually gain access to a wider variety of choices which they can access independently.

### Key Content:

- Observation Drawing and Painting
- Printmaking
- Ceramics and wire sculpture
- Fiber Arts
- Installation, Interactives and Ephemera
- Architecture, Public Art and Street Art

### Interdisciplinary Concepts We May Explore Include:

- Artists and the natural
- Environmental art and art for social justice
- Architecture & the built environment across cultures, times and places

## Health and Physical Education

### Program Approach

The Grades 2–6 curriculum is part of a coherent Health program that extends from Grades 2–10. Across the Lower School grades described here, Health and Physical Education are connected parts of students' learning about wellbeing. The scope and

## Health and Physical Education (continued)

sequence is informed by the Massachusetts Comprehensive Health and Physical Education Framework. Health instruction builds knowledge and skills related to self-awareness, emotional regulation, relationships, decision-making, personal safety, and care for the body. Physical Education—and, beginning in Grade 6, the athletics program—provides authentic opportunities to apply many of these skills through movement, teamwork, communication, problem-solving, and navigating challenge. Grades 2–5 participate in a Health/PE rotation, while Grade 6 Health continues alongside the athletics program. Across Grades 2–6, Health is taught in half groups by Health and PE faculty, creating more room for discussion, participation, and support. PE and athletics provide ongoing opportunities to reinforce relevant skills and habits. This design recognizes that learning is strengthened when ideas are introduced explicitly, practiced in more than one setting, and reinforced through shared language. Across the grade span, the curriculum gradually asks students to move from noticing and naming with adult support, to selecting and practicing strategies, to considering more complex situations and communicating their thinking.

### Health

Grade 4 Health asks students to connect what they know about themselves to their choices and relationships. Students practice managing emotions, considering possible responses, communicating needs and boundaries, and identifying sources of support as they are introduced to puberty and the changes that come with growing up.

### Physical Education

The Grade 4 Physical Education curriculum focuses on team sports, individual skill development, physical fitness, and mindfulness. Students learn the concepts and language connected to cardiovascular, aerobic, and anaerobic activity while continuing to develop the skills needed for team sports. Assessment emphasizes individual skill growth. Sportsmanship and teamwork are central to each unit.

#### Fall

- **Cooperative games and Community Building:** Students will participate in activities that will emphasize problem-solving and positive teamwork to complete physical challenges in PE.
- **Physical fitness:** Explore components of fitness through activities and exercises used throughout the year.
- **Soccer:** Develop skills, strategies, and knowledge of the rules.
- **Football:** Review throwing, catching, and kicking skills.
- **Kickball:** Develop throwing, catching, and kicking skills.

## Health and Physical Education (continued)

### Winter

- **Basketball:** Develop basic skills and learn rules, positions, and strategies.
- **Volleyball:** Review bumping, setting, serving, and positional play.
- **Floor hockey:** Review skills and apply them in lead-up and full-court games.
- **Fitness and yoga:** Practice yoga stretches and varied fitness exercises.
- **Gymnastics:** Review tumbling and balance-beam skills and use climbing activities to increase upper-body strength.

### Spring

- **Frisbee:** Develop throwing and catching techniques in preparation for ultimate frisbee.
- **Cricket:** Introduce students to the sport of cricket. Teach individual skills and the basic rules of cricket.
- **Track and field:** Identify and practice skills and strategies for track and field events.
- **Wiffle ball:** Practice throwing, fielding, base running, and batting.
- **Group games:** Use cooperative skills in large-group games such as Capture the Flag and cricket.

## Responsive Classroom

The Lower School uses the social curricular practices of *The Responsive Classroom*. Fourth graders build up their repertoire of greetings, as well as practice a good firm handshake and eye contact. These skills are used when they approach or greet adults and new students, as they are encouraged to explore new friendships and working partnerships. Students learn to resolve differences in a non-confrontational, open forum with mediation as needed. Students practice self-control and continue to develop the ability to focus during morning meeting or class discussions and speaking clearly and respectfully in morning meetings. Finally, students work on ways to include peers of both genders in group games and to play fairly; then they try to accept losses or setbacks without causing conflict.

## Homework

Please refer to the BB&N Website: [www.bbns.org/handbook](http://www.bbns.org/handbook), Lower School Policies and Procedures.