

**BUCKINGHAM BROWNE & NICHOLS
LOWER SCHOOL**



**CURRICULUM OVERVIEW
GRADE SIX
2023-2024**

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GRADE SIX CURRICULUM OVERVIEW

Language Arts

The sixth grade curriculum focuses on specific skills for reading, writing, grammar and word study for a deeper understanding of and facility with the written word in a variety of contexts.

In sixth grade, students will:

- Use specific strategies for deeply engaging with literature, including questioning, making connections, summarizing, drawing inferences, identifying evidence from the text to support ideas.
- Identify and examine authors; use of literary techniques, such as figurative language, plot structure, imagery and characterization.
- Engage in meaningful discussions with peers to practice articulating their ideas and opinions in literature circles.
- Learn and practice specific strategies to use before, during and after reading to focus and enrich understanding and critical thinking, as well as to identify stated and implied main ideas, supporting details, and independently use methods of annotation.
- Make comparisons among cultures and genres and apply their conclusions and insights based on their experiences.
- Practice analytical writing through shorter and longer responses that are structured with a thesis statement, textual evidence, and analysis.
- Explore genres of poetry, fiction, nonfiction, and memoir.
- Examine models of good writing in the above genres and identify authors' techniques; practice specific strategies and tools to develop their own writing in these genres.
- Work on writing in various forms, ranging from creative writing, poetry, personal essays, analytical responses.
- Use graphic organizers to plan their writing; create clear thesis statements, supported by evidence from readings, write strong introductions and conclusions, build on word study skills for effective, quality writing.
- Receive guidance and feedback in regular teacher conferences; receive extensive written feedback from teachers to apply future assignments, understand the role of presented expectations or rubrics in planning, evaluating and completing work.
- Receive support as needed in reading, writing, and study skills to meet the goals of the curriculum.

Social Studies

Students begin the year by studying the history of the United States through the lens of human rights. Students examine primary and secondary sources and engage in readings, reflections, and discussion in order to investigate American history and the direct connection to its shaping of our present society.

Social Studies (continued)

The class studies topics including Indigenous nations, European colonization, enslavement and abolition, suffrage, Reconstruction, the Jim Crow laws and segregation, and the Civil Rights Movement. The class places emphasis on underrepresented narratives, such as the experience of Indigenous Nations before, during, and after the founding of the country. As we consider these complex periods, students are encouraged to explore the implications of race, power, gender, and national origin in relationship to events in history and their enduring legacies today. Students regularly consider current events in class and for homework, making connections between past and present-day events.

As the year continues, students reflect on questions about the many ways that social change happens. An initial study engages students in an exploration of primary sources, helping to not only build understanding of a past event but also formulate questions that will guide further research. Students then research their chosen historical event, develop an overview, and prepare a summary of a present-day connection for display at a human and civil rights gallery. Next, students learn about the influence of various change makers and resistance movements, focusing their research on people who stood up for something that they believed important. The class completes a research project that culminates in a presentation where students teach the class about the protesters who they studied. This unit allows students the opportunity to research and better understand the experiences of protesters while discussing their virtues, weakness, setbacks, and accomplishments.

The class concludes with a study of Afghanistan. As a class, students use their learning during the year as a foundation in considering how history has shaped another country's present society. They engage in conversation around moving beyond the headlines to understand the nuance and diversity of experience and thought within a country. In groups, students research and develop a timeline of Afghanistan's history together. Students then uncover the voices of those living in Afghanistan to deepen their understanding of the lives, values, hopes, obstacles, and realities of the human experience in today's Afghanistan.

Mathematics

At BB&N we believe that math should be joyful and engaging. Our program develops children's fluency and flexibility with all types of numbers (including fractions, decimals, and negative numbers) while transitioning to more abstract and algebraic reasoning. 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.

Mathematics (continued)

Sixth grade math at BB&N utilizes the high quality, research based Grade 6 Accelerated curriculum from Open Up Resources Math. Classes are taught in small groups four times a week, with an interactive student-centered, problem-based approach.

Sixth grade students spend most of their time in class working on carefully crafted and sequenced problems. Teachers help students understand the problems, ask questions to push their thinking, and orchestrate discussions to be sure that the mathematical takeaways are clear. Learners gain a rich and lasting understanding of mathematical concepts and procedures and experience applying this knowledge to new situations. Students reflect and communicate about their reasoning with their classmates—they talk about math, listen to each other's ideas, justify their thinking, and critique the reasoning of others. They gain experience communicating their ideas both verbally and in writing, developing skills that will serve them well throughout their lives.

In sixth grade students will:

- Study area and surface area
- Use a variety of models for arithmetic with rational numbers
- **Further explore** ratios, rates, and percentages using representations such as number lines, tape diagrams, and tables
- Represent rational numbers as fractions and decimals
- Calculate sums, differences, products, and quotients using both intuitive methods and efficient algorithms
- Solve linear equations in one variable and basic equations involving exponents
- Integrate their knowledge of ratios and rates with their knowledge of equations to study proportional relationships
- Solve percentage problems, including sales tax, tipping, and markup
- Expand arithmetic skills to include negative numbers
- Explore briefly data and statistics, including representations of data and measures of center

Science

The science program is a survey course in elementary human anatomy and physiology. In sixth grade, science classes include lectures, discussions, hands-on activities and labs. Listed below are the units of study and highlights of the content and skills covered.

Cells

- Discuss what it means for something to be alive
- Observe elodea and amoeba cells under a microscope
- Learn how cells carry out the basic processes of life

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Science (continued)

The Respiratory System

- Investigate how surface area to volume ratios affect oxygen absorption in the lungs
- Dissect sheep lungs
- Collaborate and develop Virtual Reality Tour of Respiratory System with World Languages

The Circulatory System

- Design challenge on building a model circulatory system
- Design and conduct an experiment investigating the relationship between heart rate and exercise
- Learn about the ABO blood typing system
- Dissect sheep hearts

The Digestive System

- Observe how enzymes break down starches into sugars
- Work together in groups to model how peristalsis works using tennis balls and nylon stockings

The Reproductive System

- Learn about mitosis and meiosis and how genetic information is divided during cell growth
- Learn the structure, function and location of the various parts of the male and female reproductive systems
- Get answers to questions about sex and growing up with the help of the school nurse and school counselor

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).

Lower School World Languages (continued)

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.

Sixth graders explore Spanish or French three times a week for 50 minutes. Sixth grade classes are a mix of students who are new to BB&N with a variety of backgrounds in language education and students who have studied French and/or Spanish earlier in the Lower School. 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. Repetition, spiral techniques, and opportunities for personal choice and challenge allow students to build proficiency and overall comfort in the language. Class content strives to be engaging, focused on high-frequency words, and connected to meaningful content for the student. While traditional grammar instruction is not the focus of our classrooms, there is exposure to how to use a variety of high frequency verbs in the present tense, agreement of gender and number, negation, etc. Classroom communication focuses on comprehensibility and preparing students to know how to set themselves up for success with language learning as they move forward. Sixth graders are challenged throughout the year to work with all three modes of linguistic expression (interpersonal, interpretive, and presentational), as well as to interact with a variety of authentic resources to prepare them for using language skills in real world settings. Typical classroom activities include songs, reading, story listening, drawing, writing, short video clips, projects, role playing, and games.

Music

Sixth grade students will engage in practicing, performing, improvising, and creating music using their voice, midi keyboards, and the digital music software *SoundTrap*. 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. Students will highlight various popular and electronic genres of music from around the world to inspire their own compositions. Students will be assigned composition projects that focus on different music industries.

Key Musical Concepts:

- Rhythm
 - Review various rhythmic components explored in grades 3-5.
- Melody and Harmony
 - Create melodic/harmonic phrases on *SoundTrap* using a midi keyboard.
 - Create compositions utilizing various major and minor keys.
 - Explore various chord progressions in major and minor keys using a midi keyboard.
- Form and Composition
 - Listen to, identify, learn, and create multi-part vocal and instrumental electronic pieces.

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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.
 - Explore various combinations of electronic sounds in compositions on *SoundTrap*.

Chorus/Musical All students participate in the Brick Building Chorus, a choral ensemble consisting of students in grades 5 and 6. Students perform at the December Winter Concert. Beginning in January, students rehearse in conjunction with the drama teacher towards performing a sixth grade class musical production in the spring.

Orchestra Students who study an orchestral instrument are *invited and encouraged* to play in the Lower School Orchestra which provides a valuable experience different from solo practice and lessons. The orchestra plays an important role in many of the school traditions for our community. Orchestra rehearses once a week before school on Friday mornings and performs at Lower School concerts and designated assemblies.

Integrated Arts

The goal for students in the Arts Rotation is to create a body of work that demonstrates their learning about color theory, composition, principles of design and form. Emphasis is placed on keen observation, symbolism and developing personal expressive style. Students will explore, analyze, and compare the work of contemporary and historical artists within the scope of the visual arts rotation program.

Essential Questions We Explore Include:

- How can an artist transform the ordinary to the extraordinary?
- How can simple things like numbers and colors represent something about us?
- How are masks used by cultures around the world and throughout time?
- How can we use elements of art to symbolically represent an idea?
- How do artists respond to the moment they live in through the ideas they explore and the materials they choose?

Key Content:

- Painting & Color Theory
- Ceramic Hand-building Methods
- Collage & Layering
- Symbolism & Surrealism
- Principles of Design

Sixth grade students also have the opportunity to choose to focus on a particular art form in our new elective program, which runs from Fall to early Winter. This year we are offering Songwriting, Improvisation, Painting and Printmaking.

Drama

The drama curriculum consists of three skills and goals:

1. Confidence building through improvisation, and group scene work.
2. Performance alone on stage through monologue and small group work.
3. Theater games that develop skills in the following areas: attention, imagination, physical awareness and narrative skills.

In addition, all sixth graders participate in a spring musical, which involves intense acting, singing, dancing and scenic design skills. The music is rehearsed during the school day with two performances for the school to which parents and friends are invited to one.

Information Science/Library

Information Science begins with a review of how to access and use our catalog, reference tools, and the library website and how to borrow materials from the library. Students will learn strategies for using a variety of sources, including web searches, with an emphasis on checking for reliability, critical thinking and problem solving. They will practice note-taking and explore new and recent fiction as well as nonfiction books. They will have opportunities to reflect on their learning style and try different approaches to collecting and organizing information. Skills they will be developing include, but not limited by the ability to:

- Formulate research strategies,
- Use search engines and reference resources to explore topics
- Check reliability and relevance of information
- Practice broadening and narrowing their focus
- Compare sources
- Evaluate websites and other materials with emphasis on reliability and relevance
- Understand the difference between recreational information and reliable Information
- Prepare a bibliography

Technology

At 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. Through technological integration we give our students an introduction to word processing, spreadsheets and graphing, presentation software, three-dimensional design, internet safety and digital citizenship, online research, robotics, and programming. Our teachers create academic environments that facilitate student creativity, innovation, communication, and collaboration with others, while developing

Technology (continued)

students into critical thinkers, problem solvers, and decision makers. Sixth grade students are exposed to various social studies, language arts, science, world languages, art, math, and problem-solving programs and projects that:

- Are developmentally appropriate
- Directly relate to classroom content
- Offer new ways of looking at traditional curriculum
- Encourage thinking and stimulate inquiry
- Foster collaboration, communication and creativity
- Challenge and motivate a wide range of students

Sixth grade students, during their weekly technology classes, are exposed to a variety of new skills and tools as well as continue to develop existing ones. Specifically:

- Google Platform: students gain knowledge and expertise creating Google forms/surveys, Google sheets for collecting and interpreting data, Google documents for word processing, and Google slides for presentations.
- Three-dimensional design: students learn to create and design three dimensional models using the TinkerCAD program. Student designs can potentially come to physical fruition via our 3D printers or by building with various materials.

Students are immersed in the Design Thinking process particularly during the first half of the year. They explore and practice each dynamic part of the Design Thinking process from empathizing with others and defining a problem to identifying and prototyping potential solutions. Students apply their understanding of these processes in multiple contexts such as bridge design and food ethics projects.

Physical Education

The Sixth Grade physical education program shifts to a team sports focused curriculum in which the students choose a sport to play for the entire season. The students will be placed on an interscholastic team and have an opportunity to compete against other schools. For many, playing on a team is a new experience but the underlying values of participation, effort, enthusiasm, and individual growth remain the same. Before any games are played, the group has a thorough review of skills, rules, and strategies. Classes are run as a team practice with skill development, drills, and a breakdown of situations and applications for use of the individual skills. Throughout the season the basic skills from fifth grade are reviewed and more advanced skills are introduced.

The games provide an opportunity for the student to participate on a team that will work for a common goal, something that they have been working toward throughout the Lower School Physical Education Program. The major theme behind the team sports curriculum is the concept that every student plays and contributes to the success of the group.

Physical Education (continued)

Sports Offered:

Fall Season

Cross-Country
Field Hockey
Flag Football
Soccer
Volleyball
Mind and Movement

Winter Season

Basketball
Fencing
Ice Hockey
Rock Climbing
Squash
Wrestling
Mind and Movement

Spring Season

Baseball
Crew
Golf
Lacrosse
Softball
Tennis
Track & Field
Mind and Movement

Responsive Classroom

The Lower School uses the social curricular practices of The Responsive Classroom. Sixth graders continue to mature their skills of building class and community rules and understand why they must be followed. Students practice affirming, positive community building skills and self-control; develop flexibility in working in different teams, groups and partnerships. This includes inviting new friendships with sensitivity to students seeking inclusion and to positively support and affirm peers with different learning styles or pace. Students are expected to respect all students, faculty and staff. Sixth graders take an active role in class events, morning meeting or discussions with opportunities to strengthen listening skills and wait time for responses, such as speaking assertively and respectfully in morning meetings. The goal is for students to become leaders and role models of the LS community as well as to show good citizenship both at BB&N and the greater Boston area.

Homework

Please refer to the BB&N website, www.bbns.org/handbook, Lower School Policies and Procedures.

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