

## **The Public Schools of Brookline GRADE THREE CURRICULUM OVERVIEW**

Dear Parents and Guardians,

*High achievement for all* has been a core value in the Public Schools of Brookline for nearly two decades. There are many variables that contribute to a student's academic achievement and growth, one of the most important being a strong connection between the home and school. When families support their child's learning at home, express interest in their studies, and hold high expectations for achievement, the partnership between home and school is strengthened. We hope that this Curriculum Overview will be a useful tool for you as you support and encourage your child's academic success.

Curriculum Coordinators created this overview to highlight the concepts, skills, and knowledge central to each subject area in every grade level, K-8. This document is not intended to represent the entire curriculum for this grade; rather it provides the key elements taught to children across the eight K-8 Brookline schools in this grade. To learn more about the curriculum as outlined in our Learning Expectations, please visit the Public Schools of Brookline website ([www.brookline.k12.ma.us/domain/58](http://www.brookline.k12.ma.us/domain/58)).

Each year provides new learning opportunities and a window to the world around us. Your involvement and knowledge of your child's school experience will help to nurture his or her learning far beyond the four walls of the classroom. As your child begins a new year in the Public Schools of Brookline, please know that we welcome your involvement and value your support.

Respectfully,

Nicole Gittens, *Deputy Superintendent for Teaching and Learning*  
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# The Public Schools of Brookline GRADE THREE CURRICULUM OVERVIEW

## *Goals of the Public Schools of Brookline*

### **Goal 1: Every Student Achieving**

Ensure that every student meets or exceeds Brookline’s high standards and eliminate persistent gaps in student achievement by establishing educational equity across all classrooms, schools, and programs.

### **Goal 2: Every Student Invested in Learning**

Increase every student’s ownership of his/her learning and achievement by using rigor, relevance, and relationships to foster a spirit of inquiry and the joy of learning.

### **Goal 3: Every Student Prepared for Change and Challenge**

Instill in every student the habits of mind and life strategies critical for success in meeting the intellectual, civic, and social demands of life in a diverse, ever-changing, global environment.

### **Goal 4: Every Educator Growing Professionally**

Foster dynamic professional learning communities that inspire inquiry, reflection, collaboration, and innovation, and use data to improve teaching, advance student learning, and refine the programs and practices of the Public Schools of Brookline.

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## **SOCIAL EMOTIONAL LEARNING & BULLYING PREVENTION/INTERVENTION**

The Public Schools of Brookline has created a comprehensive social emotional learning and bullying prevention and intervention program to nurture school culture and provide the knowledge, skills, procedures, and processes required to foster positive student behavior in support of learning. With the effective implementation of the comprehensive program, we envision all Brookline schools reflecting a safe, welcoming, respectful, and nurturing school culture that supports the development of all children through their preK-12 experiences.

The PSB Comprehensive Social Emotional Learning and Bullying Prevention and Intervention Program is characterized by the following program elements in the specified grade(s):

### **Social Emotional Learning**

*Social Thinking* (K-12)  
*Responsive Classroom* (K-5)  
*Developmental Designs* (6-8)  
*Facing History and Ourselves* (8)  
*Brookline High School Advisory* (9-12)

### **Bullying Prevention and Intervention**

*Olweus* (K-12)  
*Understanding Disabilities* (4)  
*Second Step* (7-8)

# The Public Schools of Brookline

## GRADE THREE CURRICULUM OVERVIEW

### EDUCATIONAL TECHNOLOGY AND LIBRARIES

The Public Schools of Brookline encourages a culture of inquiry that regularly investigates and experiments with promising new practices that engage students as 21st century learners and prepares them for the evolving global society. The Educational Technology and Library staff works in collaboration with the entire school community to help students become:

- Enthusiastic, independent readers for information and pleasure
- Independent, skillful information users who know how to access, analyze and produce information in a variety of formats using a variety of tools
- Responsible digital-age citizens
- Skillful learners and innovators who use digital tools to develop the “Four Cs:”
  - critical thinking
  - communication
  - collaboration
  - creativity

The integration of these skills is typically addressed through classroom projects within the major curriculum units of study in the core subjects. School libraries are complex hubs of student learning and engagement, with the ability to enhance all curriculum areas. Emerging technologies and near ubiquitous access creates new opportunities to deepen and extend learning, often connecting with people, resources, and perspectives beyond the walls of our classrooms.

In grades three and four students develop information literacy skills that correspond to their developing reading abilities and greater capacity for critical thinking. Students begin exploring features of non-fiction texts and developing search strategies to use with the library catalog and online sites. Students begin to organize found information in order to synthesize and produce new meaning. Students explore different genres in their independent reading and curricular study.

Technology skills are developed through daily tasks and special projects that provide students opportunities to develop intermediate skills with hardware and software. Students develop the ability to use the computer as a writing tool with basic word processing skills, create simple multimedia presentations, and use a variety of technology resources for problem solving, communication, and illustration of thoughts, ideas, and stories.

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### ENGLISH LANGUAGE ARTS

Brookline’s Learning Expectations in ELA meet or exceed the standards outlined in the Massachusetts Frameworks. To reach these demanding standards, Brookline educators use the *Continuum of Literacy Learning PreK-8* (Heinemann, 2011) as their day-to-day guide when teaching specific behaviors in reading and writing. The description of the successful third grade reader and writer below comes primarily from the *Continuum*.

#### Reading

At the end of third grade, students can identify the characteristics of a full range of genres, including hybrid texts that blend more than one genre in a coherent whole. They read both chapter books and shorter informational texts, along with special forms such as mysteries, series books, books with

## **The Public Schools of Brookline GRADE THREE CURRICULUM OVERVIEW**

sequels, and short stories. Fiction narratives are straightforward but have elaborate plots and multiple characters that develop and change over time. Third grade readers are able to understand some abstract themes and to take on diverse perspectives and issues related to race, language, and culture. Some non-fiction texts provide information in categories on several unrelated topics, many of which are well beyond the reader's typical experience. Students will identify and use underlying structures (description, compare and contrast, temporal sequence, problem and solution, and cause and effect). By the end of the year, they can process complex sentences containing prepositional phrases, introductory clauses, and lists of nouns, verbs, or adjectives. Third grade students solve new vocabulary words, some defined in the text and others unexplained. They can read and understand descriptive words, some complex content-specific words, and certain technical words. Most reading is done silently; in oral reading, third grade students demonstrate all aspects of smooth, fluent processing with little overt problem solving. (*Continuum PreK-8*, pp. 312)

### **Writing**

Third graders have a strong sense of writing fundamentals and are ready to produce longer, more organized pieces of writing. They comfortably compose several sentences on one topic, can spell many high frequency words correctly and use their strong phonics foundation to write new words. They may continue to use phonetic spelling to represent sounds in unknown words.

Students continue their use of the writing process in which they brainstorm ideas, plan their writing, draft, revise and produce a polished final draft.

Third graders learn how to construct a series of paragraphs that include engaging introductory sentences, three or more supporting sentences, and conclusions. They use a variety of sentence structures and write with expression and a personal voice, incorporating words learned through reading and content-area studies.

Third graders further expand their repertoire of writing genres, adding expository nonfiction and writing longer, more cohesive narrative pieces. Third graders produce opinion pieces about themselves and the world around them. They continue to write poetry in a variety of forms with even more figurative language and imagery. Their written responses to reading focus on more complicated character and plot development.

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## **MATHEMATICS**

Brookline's Mathematics Learning Expectations, built on the 2011 MA Curriculum Frameworks for Mathematics, are comprised of two main components: the Standards for Mathematical Practice and Standards for Mathematical Content. To achieve mathematical understanding, students are engaged in mathematical experiences that balance mathematical procedures and conceptual understanding.

### ***Mathematical Practices***

Two of the mathematical practices that we will be highlighting this year involve making sense of problems and constructing mathematical arguments. Third grade mathematicians are involved in solving problems and discussing how they solved them. Students explain to themselves the meaning of a problem and look for ways to solve it. Third graders may use concrete objects or pictures to help them conceptualize and solve problems. They may check their thinking by asking themselves, "Does this make

## **The Public Schools of Brookline GRADE THREE CURRICULUM OVERVIEW**

sense?" They listen to the strategies of others and will try different approaches. They often will use another method to check their answers.

In third grade, students may construct arguments concretely (for example, by using objects, pictures, and drawings) or may begin to think abstractly. They refine their mathematical communication skills as they participate in mathematical discussions involving questions like "How did you get that?" and "Why is that true?" Students explain their thinking to others and respond to the thinking of their peers. They decide if the explanations make sense and ask clarifying and probing questions to help refine their thinking.

### ***Mathematical Content***

Building on a foundation of place value understanding and fluency with addition and subtraction, we focus on these four critical areas:

**Whole Number Operations:** Developing understanding of multiplication and division and strategies for multiplication and division within 100.

**Fractions:** Developing understanding of fractions, especially unit fractions (fractions with a numerator 1).

**Area:** Developing understanding of the structure of rectangular arrays and of area.

**Geometry:** Describing and analyzing two-dimensional shapes.

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## **PERFORMING ARTS**

Third grade students have music class twice a week in which they joyfully create music while developing the following skills:

**Performing:** Students will develop skills in singing, reading music, playing instruments, movement and dramatization of music.

**Reading and Notating:** Students will learn to interpret and apply visual representations for the sounds they hear (musical notation).

**Listening and Appreciation:** Students will learn to critically respond with understanding when they describe, analyze and interpret music. Students will study music from different periods and locations.

**Creating:** Students will improvise and compose original works of music.

**Connecting:** Students will develop understanding of artistic heritage through investigation of the historical and cultural contexts of music.

In third grade, students continue to develop the skills learned in prior years and advance their skills in the following areas:

- Ability to accompany melody using classroom instruments
- Ability to identify instruments and instrument families
- Proper singing posture and ability to match pitch in an expanded range
- Expanded singing repertoire to include rounds and partner songs
- Ability to compose simple rhythms, tonal passages and melodies for voices or instruments

## **The Public Schools of Brookline GRADE THREE CURRICULUM OVERVIEW**

- Ability to improvise short musical passages, vocally or instrumentally
- Ability to create movement in response to musical sound.
- Ability to play more advanced parts on Orff, the recorder, and other instruments, and read simple music notation on instruments
- Ability to use musical terms in analyzing performances and compositions

The **Performing Arts Learning Expectations** meet the **National Standards for Arts Education** music learning outcomes that are integral to the comprehensive K-12 education of every student.

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### **PHYSICAL EDUCATION**

During this period, children's thinking is becoming more orderly, more structured, and more logical. Therefore, students will be more realistic and more rule-oriented. Play will reflect a developing need for order. A challenge to the emerging self-concepts of these students is to demonstrate to themselves and others that they are competent, and that they have skills and abilities in which they can be proud. Physical education classes offer an environment of effective socializing. The physical education teacher helps children differentiate between acceptable and unacceptable ways of expressing feelings. Children need to internalize and understand the merits of participation, cooperation, and competition.

Cooperation precedes the development of competition and it is emphasized in the physical education class. The nature of competitive games demands cooperation, fair play, and sportsmanship, and when these are not present, the joy of participation is lost. Cooperative games teach children that all participants are needed.

The Tactical Games Approach is used when teaching sport skills, using student interest in the game itself to promote skill development and tactical knowledge. In essence, students are playing the game as they work on skills and tactics.

During this time period, students begin to relate the value of movement and healthy nutrition practices to personal, long-term healthy lifestyles. Students develop a better understanding of the components of physical fitness and how these relate to their overall fitness status.

The Grades 3-5 Physical Education Curriculum was developed with the National Standards in mind. These standards describe the physically literate individual.  
(<http://www.shapeamerica.org/standards/pe/index.cfm>)

In the 3-5 Grade Span, students work on the skill progressions within each of the following areas:

**Motor Skills and Movement Patterns:** developing skills in dribbling with hands/feet, striking with varied implements, jumping rope with rhythm, overhand throwing, and catching. In these grade levels, skills are increasingly incorporated into game play. The Tactical Games Approach is employed when learning sport skills.

**Physical Activity & Fitness:** participating for longer periods of time in a variety of vigorous activities. Throughout this grade level cluster, students begin to relate the fitness components to overall personal fitness status. In Gr. 5, all students participate in a physical fitness assessment.

# The Public Schools of Brookline

## GRADE THREE CURRICULUM OVERVIEW

Personal and Social Behavior: demonstrate positive behaviors throughout cooperative activities. Students begin to learn skills in leadership and followership.

Value of Physical Activity and Social Interactions: Recognizes the value of physical activity for health, enjoyment, challenge, self-expression and social interaction.

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### SCIENCE

In third grade science, students explore the overarching themes of Structure and Function, as well as Systems. Science and engineering practices are woven throughout all of the science content, as well as the use of science notebooks and integration with the other curriculum areas.

**Human-Made Structures: Engineering Our World**: In this unit, student engineers learn how human-made structures are designed and engineered. They investigate who engineers are and what they do, and use the Engineering Design Process to build different types of structures (skyscrapers and bridges) with a variety of materials to discover what makes structures strong and stable. They explore questions such as “Why do structures stand up?” “Why are structures shaped the way they are?” “What are the properties of materials and why are they important? In the culminating activities, students design and build a skyscraper and a bridge, identifying why they chose the materials (how they influence the strength and stability of the structure), how they put the materials together, and where pushes and pulls (forces) act on their structure.

**Living Structures: The Skeletal System**: In this unit, students will have multiple opportunities to gather evidence on how the shape of bones and skeletons match their function. They begin by studying individual unlabeled bones and then study the groups of bones in the human skeletal system (why are my bones shaped the way they are?). All the while, they are also gathering evidence on the importance of the skeletal system and how its parts all work together as a system. Next, students apply their learning to dissection of a Mysterious Object—studying the form and function of bones they gather and ultimately using them to reconstruct an animal skeleton. This experience leads into a comparison of animal skeletons and investigations of how their bodies may look different, but they have similar types of bones with the same function. Student understanding is then deepened by asking them to make claims about how animal skeletons are adapted to help the animals survive in their habitat. Finally, students read about scientists who use what they know about living animals and their skeletons, along with fossil evidence, to make claims about animals that lived long ago.

**Mammal Detectives**: Building on their experiences with the skeletal system, students become mammal detectives who use inquiry to identify the features of five mystery mammals. As they receive additional pieces of evidence about their mystery mammal (skulls, teeth, fur, feet, tracks and scat), students observe the evidence and make claims about what their mammal eats, how it moves, how it sees and where it lives, revising their thinking as needed based on new evidence. Ultimately, they make their final claims (supported by evidence) and present them to the class.

# The Public Schools of Brookline

## GRADE THREE CURRICULUM OVERVIEW

### SOCIAL STUDIES

In the third grade social studies course of study, Massachusetts Geography and History, students are introduced to the concepts of physical and human geography by examining the geography of New England and the history of Massachusetts. Students will begin by investigating the physical features of Massachusetts within the context of the landforms, climate, and vegetation/animal life biome of the New England region. They will then explore the adaptation of Native Americans and English colonists to the Massachusetts environment. Students will also investigate how English Puritan ideas shaped the development of Massachusetts from colony to state. Students will examine the outbreak of the American Revolution in Massachusetts and trace significant events in the development of Brookline and Boston. Students will read about the lives of noted Massachusetts historical figures.

**New England/Massachusetts Geography:** In this unit students will locate and label Massachusetts' physical and political features. They will also employ thematic maps to learn how agriculture, industry, and resources shaped contemporary Massachusetts and research and write reports about other New England states.

**Wampanoag:** In this unit students will investigate how the Southeastern Massachusetts environment influenced traditional Wampanoag culture. They will trace the seasonal cultural practices of the 17<sup>th</sup> century Wampanoags and become acquainted with Wampanoag oral traditions and values.

**The Pilgrims Build Plymouth Plantation:** Students begin this unit by exploring why the Pilgrims left Europe for the New World. Next, students will investigate the Pilgrims' journey across the Atlantic, creation of the Mayflower Compact, and first encounter with the Wampanoags. Students will then critically analyze an account of the First Thanksgiving and conclude by collecting and sharing data on the everyday lives of Pilgrim boys and girls.

**Puritan Colonial Massachusetts:** In this unit students compare the Pilgrims and Puritans in terms of their reasons for leaving England, beliefs, leadership, and settlement area. Next, they locate different geographical features and settlements of Colonial Massachusetts. Students will compare their lives to those of colonial children and investigate the Massachusetts Bay Colony trades and economy.

**Pre-Revolutionary Massachusetts:** Students explore the growing tensions between England and the Colonies in this unit. Students will learn about important people like King George III and Samuel Adams and will trace how events like the Boston Tea Party led up to the War for Independence. They will also deepen their understanding of such civic concepts as citizenship and the "common good".

**Massachusetts Biography:** Students will conclude their study of Massachusetts geography and history with this unit. Students begin by reviewing the elements of a biography and browsing through biographies of significant Massachusetts citizens. They will then read multiple biographies about a person of interest to collect notes and prepare a speech, poster, or booklet depicting their person's life history and contributions to society.

# The Public Schools of Brookline

## GRADE THREE CURRICULUM OVERVIEW

### VISUAL ARTS

Students in third grade work with intention to communicate their ideas. They are naturally inquisitive and develop skills of observation, perseverance and reflection. The visual arts instruction asks questions of the young artists: What are we thinking about? What are we able to do with materials to communicate ideas through art? What are learning as we make art? This builds strong artistic habits of mind as the students create work with various tools, processes, and media, and make choices that improve their ability to communicate their ideas, feelings and understandings.

Art lessons are developed to engage students in rich tasks that develop their critical and creative thinking skills, and allow them to develop artistry through deliberate practice. Students develop their artistic skills in the following areas:

**Drawing**: Creating compositions, using multiple tools, through mark making, lines and forms that communicate the artists' intention.

**Painting**: Creating a composition using paint that tells a story, expresses an emotion, suggests a feeling, develops a pattern or illustrates the relationship of colors.

**Collage**: Creating a cohesive composition that communicates the artists' intention by gluing multiple pieces of paper/found materials together in one image.

**Printmaking**: Creating a composition that transfers images to other surfaces multiple times using printmaking tools, stamps, stencils and plates.

**3D Construction**: Building a form that has multiple sides, has structural integrity, and embodies the artists' vision.

Lessons have an array of beginning points: interdisciplinary work connected to grade specific themes in other curriculum studies, art history, contemporary art, and student generated curiosities. The work focuses on developing strong artistic habits of mind that develop skill and craftsmanship. The Visual Arts classes meet once a week throughout the year.

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### WORLD LANGUAGE

Students in grades three and four continue their journey as language learners, developing a deeper understanding of culture and becoming conversation partners. Our K-5 world language program focuses on developing oral proficiency, with lessons conducted almost exclusively in Spanish or Chinese. This provides students with many opportunities to hear words in context and make meaning out of them without direct translation. This repetition, coupled with visual supports, first develops comprehension, followed by oral production.

Students continue to comprehend more than they can produce in the target language, but lessons are built around interactive activities and tasks that develop students' conversation skills. They use sentences and start to create with the language; participate in simple, direct conversations, asking and answering questions about the topics they are learning. The themes in grades three and four are

## **The Public Schools of Brookline GRADE THREE CURRICULUM OVERVIEW**

community, leisure time, climate and food, with the cultural focus on Mexico in grade three and Southern Cone countries of South America in grade four. Lessons increase to thirty minutes, three times a week.

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### **ENRICHMENT AND CHALLENGE SUPPORT PROGRAM (ECS)**

The Enrichment and Challenge Support (ECS) program is a system-wide program that supports classroom teachers in providing challenging curriculum and extension opportunities to all students. Each elementary school has a part time ECS teacher on staff. The goals of the program are: teachers see the potential in all students; all students experience meaningful learning and growth; students invested in their own learning; and creativity, collaboration, communication, and critical thinking. The ECS mission is to collaborate with Brookline educators to create rigorous, relevant, engaging learning for all students.