

The Public Schools of Brookline

KINDERGARTEN 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).

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,

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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.

KINDERGARTEN

Kindergarten is a year of active learning during which students engage in rich curriculum units that are integrated with skills from all content areas. Social learning is a strong component of the kindergarten year, as students work and play collaboratively, developing their organizational skills, language skills and logical thinking. Each day there are opportunities to explore, communicate and explain their thinking.

Teachers work with students in large, small and individual settings to ensure that learning styles are met and individual strengths and needs are addressed. Social understanding and community building are achieved through The Responsive Classroom approach, which is a part of every Kindergarten experience. Teachers observe and record each student's progress over time through authentic samples of student work in a kindergarten assessment program known as The Work Sampling System.

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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

Understanding Disabilities (4)

Second Step (7-8)

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.

Students in kindergarten are introduced to the library and are exposed to a wide variety of picture books arranged by theme and connected to their classroom units, whenever possible. Over the course of the year, students learn the parts of the book, as well as the basic elements of story. These

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developmentally appropriate experiences begin laying the essential groundwork for beginning information literacy skills in later grades.

Technology skills are often modeled and developed through daily tasks and special projects that provide students opportunities to develop basic skills with hardware and software. Applications often include illustrating words, thoughts, and sentences in both individual and class projects.

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 Kindergarten reader and writer below comes primarily from the *Continuum*.

Reading

Kindergarteners will be exposed to both fiction and informational books throughout the year. They will hear stories read aloud by their teacher daily, and by the end of the year most Kindergarteners will read emergent or beginning level texts with one or more lines per page.

Kindergarteners will respond to text in a variety of ways. With prompting and support, they will ask and answer questions about key details in a text. They will retell familiar stories and talk about the characters, setting, and major events. They will be encouraged to compare and contrast the adventures and experiences of characters in familiar stories. Kindergarteners will learn to recognize common types of text such as storybooks and poems. They will also be able to name the author and illustrator of stories.

Kindergarteners will learn print concepts such as the directionality of print on the page. They will learn that spoken words are represented by written words on the page, and that words are separated by spaces in print. They will learn all of the letters and letter sounds and learn to put sounds together to read words. They will also learn high frequency words such as the, you, she, etc. Other important concepts connected to both reading and writing are the ability to recognize and produce rhymes, count and segment syllables in words, and pronounce the initial, medial and final sounds in words.

All of these skills will be combined to enable the reader to read text at the emergent and beginning level. They also have a direct connection to Kindergarten writing.

Writing

Kindergarteners learn to write for a variety of purposes, including expressing their opinion, writing about books they have read, and explaining information. Kindergarteners use a combination of drawing, dictating and writing to compose written pieces.

Kindergarteners use their letter sound knowledge to write words. They are taught to say words slowly and write the sounds they hear in order. There are several stages of writing in Kindergarten, and each child progresses through them at his/her own rate. Many Kindergarteners start the year by writing symbols to represent their ideas, progress to a string of letters with some sound-symbol

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correspondence, and by the end of the year write one or more sentences with some spacing between words and some conventional spelling.

MATHEMATICS

Brookline’s Mathematics Learning Expectations, built on the 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 experiences which include mathematical procedures, conceptual understanding, and application.

Mathematical Practices

Two of the mathematical practices that we will be highlighting this year involve making sense of problems and constructing mathematical arguments. In Kindergarten, students begin to build the understanding that doing mathematics involves solving problems and discussing their process. Students begin by explaining the meaning of a problem and looking for ways to solve it. They may use concrete objects or pictures to help conceptualize the problem and also check their thinking by asking themselves “Does this make sense?” Students may explore multiple strategies throughout their problem solving process.

Kindergarten students construct arguments concretely, for example using objects, pictures, drawings, and actions. They also begin to develop their mathematical communication skills as they participate in mathematical discussions involving questions like “How did you get that?” and “Why is that true?” They engage in conversations where they are explaining their thinking to others and responding to the ideas of others.

Mathematical Content

In Kindergarten mathematics instruction, we focus on the following:

Counting and Cardinality

- Know number names and the counting sequence.
- Count to tell the number of objects.
- Compare numbers.

Operations and Algebraic Thinking

- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Number and Operations in Base Ten

- Work with numbers 11–19 to gain foundations for place value.

Measurement and Data

- Describe and compare measurable attributes.
- Classify objects and count the number of objects in each category.

Geometry

- Identify and describe shapes
- Analyze, compare, create, and compose shapes

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these two critical areas:

Whole Numbers and Operations: Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as $5 + 2 = 7$ and $7 - 2 = 5$. Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

Geometry: Students identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

PERFORMING ARTS

Kindergarten 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 an understanding of artistic heritage through investigation of the historical and cultural contexts of music.

Students in kindergarten begin to develop the skills that support their natural joy for creating music. Children become comfortable with their own voices as they learn to listen to and work with one another in an ensemble setting, interpret sounds and create music to express their feelings, ideas and experiences. They develop skills in the following areas:

- Proper singing posture and use of voice, development of pitch and repertoire of songs
- Awareness of music elements and musical terms
- Awareness of space through movement to music and dances
- Composing simple rhythms, tonal passages and melodies for voices or instruments

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

The importance and value of regular physical activity is recognized for its long-term benefits as never before. Accompanying this recognition is the awareness that childhood is the time to begin the development of active and healthy lifestyles. Children need to be taught the skills, knowledge, attitudes, and behaviors that lead to regular and enjoyable participation in physical activity.

Quality physical education is both developmentally and instructionally appropriate. Although the grade levels are clustered within this document, our students will experience skill acquisition, physical fitness development, and social-emotional skill growth according to their developmental levels. The K-2 Physical Education Curriculum is aligned with the National Physical Education Standards. The standards describe the physically literate individual.
(<http://www.shapeamerica.org/standards/pe/index.cfm>)

In the *K-2 Grade Span*, students work on the skill progressions as follows:

Motor Skills and Movement Patterns: Develop static and dynamic balance, spatial awareness, travel, kicking, catching, throwing, and rhythms. Students experience the Skill Themes Approach, learning movement language and skills (such as pathways, levels, force) that continue throughout the grades.

Physical Activity & Fitness: Actively participate in a variety of activities, incorporating all components of physical fitness.

Personal and Social Behavior: Learn to follow directions and work cooperatively in a variety of Physical Education settings.

Value of Physical Activity and Social Interactions: Exposure to new skills, experiencing feelings of success and a sense of enjoyment through physical activity.

SCIENCE

In kindergarten science, students observe and explore water, structures, and living things that they find in nature using their senses. The curriculum is designed to follow the natural curiosity of kindergarteners as they ask questions and learn through “playing” with engaging materials. 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.

Exploring Water: In kindergarten, students begin by exploring a variety of materials at the water table. They are encouraged to find out how they can use various materials with water and what water does when it’s being moved—following their own questions and interests and trying things out. They also look at books and images of water in different kinds of settings to inspire water play. Students can then move on to more focused explorations of how water flows through tubes or in streams, water drops, and how different objects sink or float in water.

Discovering Nature: This year-long study of nature allows kindergarten naturalists to use their senses to

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observe living things outdoors and indoors: their physical characteristics, behaviors, and the needs of living things in their environments. They look closely at living things that interest them, ask questions and use basic tools (such as magnifiers) to extend their senses. After students have had multiple opportunities to study living things on their own, they delve into more detailed explorations of plants (growth and development, interrelatedness of their different parts, needs and life cycles) and animals (physical characteristics, behaviors, needs and life cycles). These investigations take place inside and outside as students observe the changes in a tree or bush over the course of the year, as well as the types of animals they observe on the school grounds.

Building Structures: Kindergarten engineers investigate how they can build with various building materials, following their interests and questions. They look at books and images of different kinds of buildings to inspire their block play. Then they begin to think more about how they can use materials and designs to make strong and stable structures (such as towers and enclosures). Students learn about engineers and architects and are provided with experiences that motivate them to continue their explorations in new ways and connect their learning to their lives outside of school.

SOCIAL STUDIES

In the kindergarten social studies course of study, Living, Learning, and Working Together, students will be introduced to the four strands of social studies: civics, economics, geography, and history. They will begin by learning about their own families and those of classmates. Throughout the year students will investigate the symbols, traditions, and histories of national and religious holidays. Students will commence their study of economics by exploring businesses and public services in their immediate surroundings. They will also be introduced to such basics of geography as maps, directionality, fundamental physical features, and lifestyles in other places. Students will practice civics by means of classroom community building, i.e. rule-making, problem-solving, sharing, and voting. Students will also be introduced to narratives about historical events and people so as to develop an awareness of the differences and similarities between now and long ago.

Our Families: In this unit, students will begin by investigating different kinds of family structures, considering their similarities and differences and identifying diverse types of family membership. They will then apply their learning by producing a book about their own family. In addition, in the course of undertaking other units, students will also engage in such family-focused activities as researching their own family history and inquiring into the family life of a child in another country.

From Rules to Citizenship to Government: In this unit students will be introduced to civics by means of the *National and Religious Holiday* resource packet. They will share rules in their own families and compare and contrast these rules with classroom rules, reflecting on the behaviors that constitute good community citizenship. In addition, when discussing national holidays throughout the year, students will also become acquainted with U.S. civic symbols and celebrations.

How We Get the Things and the Help We Need: In this unit students will explore the neighborhood of their school. They will access non-fiction books on topics such as stores and post offices, generating questions and predictions about specific local businesses and/or public service institutions. In the process of researching local businesses and service institutions, students will look into how people in the

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community use money and what kinds of jobs they have.

Our Place on the Map: In this unit students will be introduced to a range of maps, globes and other geographical tools and will engage in basic mapping activities such as using maps to locate objects. Next, student will make their own maps and apply their mapping knowledge by locating features in their primary atlas. The unit will culminate in research and analysis of local geographic features as compared to those in another country.

Now and Long Ago: Students will undertake history learning activities during this unit throughout the year. They will begin by looking at their own personal histories and then move on to family histories and living memory. They will then compare different aspects of how people live now and during other historical epochs. Periodically, students will also discuss read-aloud biographies about significant men and women in U.S. history.

VISUAL ARTS

Creating, exploring and discovery are at the heart of visual arts instruction in kindergarten. Children experiment enthusiastically with art materials and investigate the processes and concepts presented to them. Students explore how to combine individual ideas, tools, materials and their emerging manipulative skills to express themselves through the visual language of art making. Students are excited to share their understanding of the world.

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 with multiple drawing 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

Kindergarten students are beginning their journey as language learners, where they discover new worlds and cultures. Our K-5 World Language program focuses on developing oral proficiency, with lessons conducted almost exclusively in Spanish or Chinese (Driscoll only). 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.

Lessons incorporate songs, games, books, a calendar routine and other interactive activities that provide students opportunities to practice the language. Students in grades one and two comprehend far more than they can produce in the target language: they use isolated words, lists of words, or memorized phrases to respond to simple questions about the topics they are learning and convey minimal meaning to those experienced at dealing with foreigners. The kindergarten themes are school and community, family, and climate, with the cultural focus on the countries of the Andes. Lessons are twenty minutes, three times a week.

ENRICHMENT AND CHALLENGE SUPPORT (ECS)

The Enrichment and Challenge Support program is designed to align with the district's Strategic Plan goals and to provide collaborative support to teachers in helping all students to:

- *Experience meaningful learning and growth (extension and challenge);*
- *Become invested in their own learning and be able to pursue their passions;*
- *Acquire the skills and habits of effective learners; and*
- *Utilize technology to create, collaborate, and communicate.*

ECS Specialists work together with classroom teachers to meet the needs of their students for challenge, enrichment, and extension across all disciplines, within the classroom, throughout the school day. To do this, ECS Specialists spend most of their time collaborating with classroom teachers in conjunction with other specialists. Collaboration among classroom teachers and ECS could include:

- *co-teaching a differentiated lesson;*
- *working in the classroom with small groups of students or stations;*
- *designing and implementing digital, inquiry-based, personalized, and project-based learning;*
- *assessing students and co-planning appropriate follow-up.*