
9th Elementary School Educational Program

Public Schools of Brookline

January 23, 2017 Draft

DRAFT

Table of Contents

9th ELEMENTARY SCHOOL EDUCATIONAL PROGRAM

STRATEGIC PLAN GOALS

GRADE AND SCHOOL CONFIGURATION POLICIES

CLASS SIZE GUIDELINES

SCHOOL SCHEDULING METHOD

TEACHING METHODOLOGY AND STRUCTURE

Grouping Practices

Tiered Instruction

Educational Technology

The School Building and School Setting as a Classroom

English Language Arts/Literacy

Mathematics

Performing Arts

Physical Education

Science and Engineering

Social Studies

Visual Arts

World Language

English Language Learners (ELL)

SPECIAL EDUCATION AND STUDENT SERVICES

Learning Centers

Specialized Programs

Student Services

Guidance and Therapy Suite

Health Services Suite

Functional Life Skills

SCHOOL CULTURE AND SOCIAL EMOTIONAL

OUTDOOR SPACE FOR PHYSICAL ACTIVITY

PROFESSIONAL LEARNING AND TEACHER PLANNING

ROOM ASSIGNMENT POLICIES

LUNCH PROGRAMS

TRANSPORTATION POLICIES

FUNCTIONAL AND SPATIAL RELATIONSHIPS AND ADJACENCIES

SECURITY AND VISUAL ACCESS REQUIREMENTS

9th ELEMENTARY SCHOOL EDUCATIONAL PROGRAM

The Public Schools of Brookline (PSB) provides an education to preschool through twelfth grade students in eight elementary schools, one comprehensive high school, and early childhood programs in rental spaces across town. In addition to school-based programs, the Public Schools of Brookline offers continuing education courses, summer school, enrichment programs, and numerous athletic opportunities.

For more than two decades, the Public Schools of Brookline has been guided by four core values: high achievement for all, excellence in teaching, collaboration, and respect for human differences. More recently, a fifth core value was added – educational equity. The core values, along with a vision, mission, and set of aspirational goals, create the foundation for the work in our schools and across the district. Once finalized, the district-wide strategic plan will provide inspiration and direction, while holding us accountable to fulfilling our vision, which begins with:

Brookline provides an extraordinary education for every child.

Each child's unique path to achievement

is supported in academically exciting and programmatically rich environments.

These two sentences could be part of a school system's vision statement today or 50 years ago; however, the reality of what schools from these two eras would look like is vastly different. Fifty years ago, or in some cases just ten years ago, what was considered extraordinary, exciting, and programmatically rich now borders on being irrelevant for the teaching and learning that is required today. No longer is learning confined to the classroom. Learning is ubiquitous. No longer is there a finite body of knowledge that a teacher imparts to her students. Now, there is a vast amount of information available to students, not just by way of the teacher, but also by virtue of access to technology. Described as the "Four Cs" or "super skills" for the 21st century, communication, collaboration, critical thinking, and creativity are redefining the basics of children's learning experiences. No longer is "smart" defined solely by scores on standardized tests. Instead, intelligence and talent are expressed in a variety of ways: applying knowledge, creating products, solving complex problems, systems thinking, design and testing, and knowing how to learn¹.

¹ M. Neumeier, *Metaskills: Five Talents for the Robotic Age*, New Riders, 2013

STRATEGIC PLAN GOALS

Our teaching and learning aspirations described in the strategic plan visionary goals drive our building plans. The 9th Elementary School building plan was developed with an understanding of how the physical structures can create and sustain an environment that maximizes student learning. It is essential that the school be flexible, with spaces that can be used for multiple purposes, are accessible (both physically and technologically), and create an environment that promises interest, creativity, and multiple learning opportunities.

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 individual 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.

GRADE AND SCHOOL CONFIGURATION POLICIES

The Public Schools of Brookline provides educational programs for students in preschool through grade 12. Brookline enjoys an international reputation, welcoming students from all over the world. As of October 1, 2016, there were 7,734 pre-K through 12 students enrolled in the Public Schools of Brookline. The eight elementary schools educate students in grades pre-K through grade 8, with an October 1, 2016 enrollment of 5,445 students. Students attend the Brookline elementary school in their geographical neighborhoods. Brookline High School serves students in grades 9 – 12, with an enrollment in October 1, 2016 of 2,001 students. We currently enroll 57 pre-K students in classrooms located in our elementary schools, and another 231 pre-K students in off-campus leased sites in town. The projected K-8 enrollment for the 2020-2021 school year is currently projected to be 6,193; this represents an increase of 748 students from October 1, 2016.

The 9th Elementary School is the next building needed for Brookline’s K-8 elementary students. To serve students of this age most effectively, the physical space, at a minimum, needs to feel intimate and small, although not cramped and with plenty of room. Students thrive in a small learning community where teachers know them well; in a community that supports a sense of safety, respect and trust; in a community that is energizing and promotes creativity; and in a community that supports learning *every* way with the appropriate facilities that promote learning inside and outside of the building. Our educational plan, for pedagogical reasons, calls for clustering grade levels. This creates the necessary intimacy and scale to create caring, connected, and collaborative learning communities in the new 9th Elementary School.

CLASS SIZE GUIDELINES

The Brookline School Committee recognizes that class size is an important factor in a quality education. Steadily increasing enrollment in Brookline, coupled with limited space in our school buildings, continues to put upward pressure on class sizes, the average system-wide class size has remained relatively steady during the recent 8-year period of enrollment growth. A goal of the new facility is to create classroom spaces that are small personalized learning environments.

The number of required classrooms based on current enrollment for 550-900 students is outlined below. Acknowledging that Brookline has a history of and commitment to class sizes of 21 or fewer, the design of the new school should consider building classrooms that could hold up to 25 students in order to allow for the ongoing enrollment increases experienced in the district.

4 Section School

Grade Level	# of Classrooms	Anticipated Average Class Size	Enrollment with Avg. Class Size	Maximum Classroom Capacity with Growth	Enrollment with Class Size Growth
Pre-Kindergarten	3	15	45	18	54
Kindergarten	4	21	84	25	100
Grade 1	4	21	84	25	100
Grade 2	4	21	84	25	100
Grade 3	4	21	84	25	100
Grade 4	4	21	84	25	100
Grade 5	4	21	84	25	100
Grade 6	4	21	84	25	100
Grade 7	4	21	84	25	100
Grade 8	4	21	84	25	100
Total	39		801		954

3 Section School

Grade Level	# of Classrooms	Anticipated Average Class Size	Enrollment with Avg. Class Size	Maximum Classroom Capacity with Growth	Enrollment with Class Size Growth
Pre-Kindergarten	3	15	45	18	54
Kindergarten	3	21	63	25	75
Grade 1	3	21	63	25	75
Grade 2	3	21	63	25	75
Grade 3	3	21	63	25	75
Grade 4	3	21	63	25	75
Grade 5	3	21	63	25	75
Grade 6	3	21	63	25	75
Grade 7	3	21	63	25	75
Grade 8	3	21	63	25	75
Total	30		612		729

Historically, all Brookline elementary schools have housed pre-kindergarten classrooms, providing inclusive educational opportunities to the children of Brookline. In 2012, pre-kindergarten classes were moved out of many elementary schools to other leased sites in town due to increasing enrollment and space constraints. We value preK-8 configurations, and believe that pre-kindergarten classes serve students best as part of a contiguous preK-8 school community. Therefore, the 9th Elementary building project creates three inclusive pre-kindergarten classrooms allowing the school's youngest learners to be housed, once again, in an elementary school setting.

Applying the design principle of making a large school feel smaller, grade levels should be clustered to allow teams of teachers to work with their cohort of students. A smaller, more personalized learning environment is created within such clusters, which also promotes a strong sense of teachers "owning" all students and helps to ensure that no student feels anonymous. We suggest a clustering of grades that will support teachers to collaborate within specific grade spans (PK-2, 3-5, and 6-8). Clustering in these three groupings will support a culture of these groups of teachers taking collective responsibility for preparing students in their grade span for the upcoming grade span. In addition to supporting a strong sense of community and allowing teachers to get to know their students well, clustering grade levels promotes collaboration. For this reason, proximity matters. Teachers teaching side-by-side in classrooms with windows to the hallways naturally

promotes a sharing of practice. Internal windows help make student learning more visible and teachers' practice more public while allowing for a clear line of sight into hallways and gathering spaces for informal supervision of students.

Input from teachers, principals, and district administrators makes it clear that classroom spaces need to be adaptable to the many different structures and instructional methods used today and into the future. While the choice of classroom furniture will play a large role in how flexibly a classroom can be used, the model classroom will have some consistent features such as areas for small group instruction and work, seating area at desks or tables for an entire class for full group instruction, counter space that abuts a wall and can be used for individuals to work at either while standing or sitting on stools, magnetic whiteboard space to be used during instruction as well as display space, built in storage, and movable walls within a classroom and between classrooms that will enable the creation of larger or smaller spaces when needed.

Through programming and physical space this school will also take into consideration the separate and distinct needs of 6-8th grade students while still allowing older students to be leaders and role models for the entire school community and interact with and support their younger peers. The middle school program should have a space that is distinctly theirs and that provides a sense of "graduating" to a different and unique part of the school community. At the same time, it should feel "semi-permeable" in that the middle school program should not feel sequestered or entirely separate from the rest of the school.

SCHOOL SCHEDULING METHOD

Every year the district distributes the document, *Time Allocations – Expectations and Guidelines*². This document clearly communicates the minimum teaching and learning minutes by grade level, across the disciplines, per day and in a week, in order to meet state requirements and adhere to collective bargaining agreements. Teachers use this information for planning purposes and administrators create the K-8 master schedule.

The Public Schools of Brookline has a rich program of specials – visual arts, performing arts, physical education, and health -- that allows students to begin to develop mastery in these areas within separate classes and through the integration of these subjects with the other disciplines. A *secondary* benefit of these classes is the use of this time for teachers' planning (individual and

² See Appendix B: *K-8 Time Allocations: Expectations and Guidelines* and *21st Century Interdisciplinary Themes*

common planning time). Appropriate space for the specialists to provide a high level of instruction is essential.

Within a school week, all students in the school will typically take as many as five specials (two music, one art, and two physical education classes). For music, grades 4-8, students take Conservatory classes. With all grade 6-8 students scheduled *simultaneously* in Conservatory classes, students participating in Conservatory will need to be scheduled in 6 or 7 different spaces that can support music/performing arts instruction. The two visual arts rooms require storage that can accommodate the on-going work of 800 students, stored from week to week as students are working on their projects. The school will also require spaces to display artwork and student work throughout the school. To properly schedule high-quality physical education, two appropriately sized spaces will be required.

K-8 students also take world language within their homeroom classes. The world language program is described in detail later in the document and listed here only for purposes of understanding the complexity of the 9th Elementary School scheduling process. Teachers travel from classroom to classroom for instruction. Typically world language is taught three times per week with the length of each class period lengthening as the grade level increase.

The English Language Learner (ELL) program is another area of attention in the school district's master schedule. The support system for our ELL students is both push-in and pull-out, as determined by the student's level of English proficiency. Students at the entering and developing stage need a designated ELL learning classroom. We anticipate needing four designated ELL classrooms in the 9th Elementary School to provide instructional support in small group and whole-class settings.

In addition to the spaces needed for the programming described above, the 9th school must also provide additional types of spaces for the teaching and learning that is aligned to our local standards and our strategic goals. These include:

- Appropriate spaces to schedule math specialists and literacy specialists providing intervention services to students; based on a 4-section school, 8 literacy and math specialist spaces would be needed;
- Special education services stationed and provided throughout the school with proximity to the clustered grade levels;

- Open spaces/makerspaces and a Fab Lab that support the work of the *Engineering Design Process*³ – define the problem, explore, design, create, test, and improve; provided with proximity to clustered grade levels;
- Grade level clusters to allow elementary teachers to collaborate on interdisciplinary and project based learning across all the classes of the grade, integrating the learning of students
- Grade level clusters would also allow elementary world language teachers to move from class to class across a grade level more efficiently;
- Instrumental lessons conducted in the proper space, and not in a classroom, hallway or an alcove where they can disrupt to other classes; We anticipate classes will be provided in strings, chorus, clarinet, guitar, and orchestra with additional small group lessons;
- Music production class requiring on-line access for each student; a four section school would require two classrooms of music production to be scheduled at the same time;
- Fully accessible classrooms allowing students with physical disabilities to be scheduled into any learning space in the building;
- Appropriate professional spaces available for teacher collaboration during common planning time;
- Adequate and secure storage spaces with moveable furniture allowing use by multiple users;
- Availability of appropriate open space for informal gathering; and
- Adequate spaces (walls, glass cabinets, display areas) for extended display of student work so that a space is not deemed “not available” while displaying student work.

³ See Appendix C: *Engineering Design Process*, a student-friendly version of the engineering design process provided by TheWorks.org. The graphic supports Brookline teachers’ understanding of how to build engineering practices into and across the curriculum.

TEACHING METHODOLOGY AND STRUCTURE

“Form follows function” is a fundamental principle in science/engineering. The 9th Elementary School project provides the opportunity to create the school facility in a form that supports the functions of a 21st century education and promotes the collaboration that drives the high-quality and innovative teaching and learning that is called for in our strategic plan goals.

Brookline’s K-8 curriculum⁴ is created across all disciplines within our local standards, called *Learning Expectations*⁵ (LEs). We teach for understanding and mastery⁶ of the *Learning Expectations* and pay particular attention to personalization, and attention to 21st Century skills (e.g., critical thinking), Habits of Mind (e.g., reflection), social emotional learning (e.g., respect), and non-cognitive skills (e.g., perseverance)⁷.

In addition, the revised strategic plan goals require shifts in our curriculum, instruction, and assessment practices in order for students to acquire the high-priority skills and essential knowledge needed to flourish in high school and succeed in the digital age. Twenty-first century learning requires 21st century teaching in a 21st century school. The 9th Elementary School should be a learning environment that supports the learning necessary for students to prepare for the future.

An overview of Brookline’s educational programs follows that includes descriptions of how the new school building will support and promote this pedagogy to enable us to meet our goal of fully preparing students for their futures.

⁴ See Appendix D: *Public Schools of Brookline Grade 3 Curriculum Overview*. Brookline has a comprehensive K-8 curriculum across all subjects defined by the *Learning Expectations*. It is essential that parents and the community are aware of the Brookline curriculum. Each grade level’s *Curriculum Overview* introduces the discipline and a summary of important content, skills, and concepts in that discipline and grade.

⁵ See Appendix E: *Grade 3 Science/Engineering Learning Expectations*. Every subject has *Learning Expectations* – statements that define what students will know and be able to do, K-8.

⁶ See Appendix F: A subset of *Learning Expectations* across the subjects in grades 1-5 are defined as *Essential Learning Expectations* (ELE). Student learning and growth of each ELE is monitored, measured/described, and reported on the grade 1-5 Progress Reports with the use of rubrics. Rubrics describe the continuum of learning for each ELE. On the rubrics, *Established* defines grade level proficiency.

⁷ See Appendix G: *Work Habits and Skills*. Beyond the acquisition of discipline- specific content and skills, all students need to know how to learn in a variety of settings and be a good citizen. *Work Habits and Skills* define a set of high-priority skills that Brookline values greatly and, therefore, measures/describes on the *Progress Reports*.

Tiered Instruction

Teachers at the 9th Elementary School will support students through a variety of teaching models: co-teaching, team teaching, flexible grouping, small group instruction, and individualized instruction. PSB recognizes that all students learn in different ways, rates, and timeframes. To that end, the 9th Elementary School needs to be adaptable with its staffing support, instructional methodologies, and assessment practices.

In PSB, tiered levels of instruction provide the general education foundation in all classrooms. With high quality Tier I instruction provided to every student every day, Tier II support provided inside and outside of class, and Tier III interventions typically provided in a pullout or separate classroom. If a student demonstrates academic and/or social/emotional/behavioral concerns despite thorough Response to Intervention (RTI) procedures, the teacher refers the student to the building Child Study Team (CST). The CST supports teachers in implementing additional strategies. CST meetings require a professional space for collaboration.

Grouping Practices

General education teachers, in collaboration with special educators and other instructional specialists, determine a variety of grouping methods to meet the instructional needs of their students. Grouping and regrouping methods take place weekly within classrooms and across a grade level. General education, special education, literacy and math specialists, ELL teachers, and ECS teachers collaborate to provide tiered instruction in the inclusive environment. Pullout instruction is provided for students who require it, based on their identified need for Tier II support or Tier III intervention. Grade level classrooms should be organized within common hallways and adjacent locations. Close proximity of grade level classrooms and the necessary small group learning spaces is critical in order to achieve the requisite communication and collaboration for a variety of grouping methods in grade level teams. Additionally, classrooms should include spaces where small groups of students can work independently, receive instructional support, and participate in interventions within the classroom.

Educational Technology

Technology and digital learning play an ever-increasing and critical role in teaching and learning, both inside and outside of schools. Technology provides an opportunity to transform learning, when used purposefully. Our classrooms need to be flexible and dynamic spaces that allow for all types of learning, have reliable access to the digital resources available to enhance teaching and

learning, and operate with an understanding of the appropriate role of technology in our schools and students' lives.

In Brookline, we envision technology improving our ability to:

- Communicate and collaborate in our schools, our community, and the evolving global society;
- Maximize learning for all students using techniques and materials that take into account varying backgrounds, capabilities, and learning styles;
- Ensure that all students obtain digital literacy skills that are required in the 21st century;
- Create a well-integrated, learner-centered environment focused on inquiry into engaging problems;
- Enrich and extend professional learning for all teachers and instructional leaders; and,
- Enable all school personnel to effectively and comfortably use technology as a teaching and administrative tool so that more resources and time can be focused on teaching students.

Collaboration across town and school departments has produced creative solutions with beneficial outcomes, for example, establishing a wireless network throughout most of the school; properly installing interactive whiteboards with projectors in strategic instructional areas; and creating space for middle school students to have ongoing access to a set of computers near their classrooms.

The new facility will support a variety of improvements in the school's technology including, but not limited to: a more robust and reliable wireless network to support multiple devices per user; multiple and strategically placed electrical outlets and drops for easy access, relocation and setup; sufficient space for technology closets; and well provisioned classrooms that redefine the current standard. We are planning for the standard learning space to include: a wireless access point and appropriate network drops; voice over internet protocol (VOIP) phone; a mounted projection/interactive whiteboard with enhanced audio system; two (2) classroom desktop computers with speakers and headphones; a district-issued teacher laptop; classroom tablet; and a document camera. Teachers should have access to control and utilize much of this technology through a smart teacher control panel with USB ports that allow for easy document camera connections, interactive whiteboard equipment controls, and speakers. With this as the standard, there will be learning spaces that have more technology in the room and others possibly less. The technology in the room should be dependent on the educational goals and functional demands of the space.

The School Building and School Setting as a Classroom

Building a new school in the early 21st century when our community and society are more conscious than ever of the delicate balance between environmental sustainability and ongoing development provides an opportunity to have the physical plant itself play a significant role in the culture, educational approach and daily lives of students and teachers. Whether it's through monitoring waste water, understanding the science behind passive and active solar power, or studying conservation measures built into the new building, the physical plant can be used to help students learn about science, sustainability, and taking care of the environment. For example, signs and working exhibitions created by students could identify design elements that demonstrate architectural, structural, mechanical, and green building strategies. Student tour guides could be trained to introduce visitors to the building's features. Back-of-the-house spaces could be used as instructional spaces for students and staff, and could be used by town building and maintenance staff for hands-on training. Brookline's new elementary school could stand as a physical demonstration of environmental stewardship and innovation, providing a local case study for sustainable school construction.

With the school being adjacent to Soule Recreation it will provide access to a wide range of natural habitats that can be explored by students, play a central role in their education, impact students' attitudes towards school and the broader environment. Thoughtfully connecting the school grounds with the natural resources on the Soule property will allow the school to:

- Create a richer teaching environment and enable pupils to connect the natural world to their daily experience in school;
- Create a sense of responsibility for and an awareness of nature within the school grounds;
- Encourage pupils to explore and understand biodiversity in their locality and to appreciate the need for environmental care on a global level; and
- Encourage pupils to value the school grounds as a place to play, explore and make a connection with the natural world.

Further, we would like to consider leaving some of the school grounds unfinished and allow the students who ultimately attend this school to lend a hand in the final design and even construction of a portion of the school grounds.

English Language Arts/Literacy

The K-8 English Language Arts program emphasizes explicit instruction in strategies of proficient readers and writers as well as meaningful exploration of the content of Language Arts and literature.

Brookline was well positioned for the move to the Common Core State Standards. Through our rigorous Program Review process, an ambitious K-8 literacy initiative began in the 2010-2011 school year. This initiative provided a strong foundation with which to meet the demands of the new Massachusetts Curriculum Frameworks. The literacy initiative, like the Massachusetts Curriculum Frameworks, emphasizes reading and writing in fiction and nonfiction. In addition, just as the Frameworks require students to read texts at ever increasing levels of difficulty, the Brookline initiative has focused on providing students access to a text gradient that supports their reading achievement.

Literacy instruction in Brookline is guided by *The Continuum of Literacy Learning, PreK-8*, a comprehensive and detailed description of student proficiency in literacy in the elementary and middle grades. One of the many strengths of this guide is the broad definition of *Literacy Learning*, including:

- Interactive Read-Aloud and Literature Discussion
- Shared and Performance Reading
- Writing About Reading
- Writing
- Oral, Visual, and Technological Communication
- Phonics, Spelling, and Word Study
- Guided Reading (small-group reading instruction)

Schedules for grades 1 – 5 reflect a daily, uninterrupted literacy block of 90-120 minutes. During this instructional block, students receive small group reading instruction from their classroom teachers and may participate in a variety of language arts learning centers, allowing students to refine reading and writing skills. Students who receive targeted literacy interventions do so outside of this time. Interventions may be provided by one of the 9th Elementary School's literacy specialists, a special educator, or an ELL teacher.

In grades 6-8, at a minimum, students have a daily 50-60 minute block of English Language Arts instruction. Students requiring additional supports and literacy intervention receive targeted

instruction from classroom teachers, special educators and ELL teachers during designated 45-55-minute instructional blocks each day.

Teachers use multiple assessments to measure student progress, including the *Benchmark Assessment System (BAS)*, running records and observational notes. In grade level data meetings, teachers examine whole class and small group instructional implications, as well as identify students and develop plans for individual literacy interventions. Tier two intervention includes the *Leveled Literacy Intervention (LLI)* and *Reading Recovery* (grade 1).

Although most of the reading and writing instruction takes place within the classroom environment, smaller work areas are necessary to facilitate individualized instruction, including both 1:1 and small group settings for book discussions and conferring. In addition, small work areas are needed to support individual and small group general education interventions in reading and writing, inside and outside the classroom. The 9th Elementary School's literacy specialists and coaches also need office space in which planning, coaching, direct instruction, and intervention can take place. This space should be a part of one of the grade level hubs for faculty and staff described below in the Professional Learning and Teacher Planning section.

Library/Media Center

The school library/media center remains an integral part of the learning and school community in Brookline schools. The library/media center should be placed in the building so that it is easily accessible by classrooms and be large enough to accommodate multiple classes at once. Having moved well beyond being a repository for books and card catalogs, the media center/library can act as another learning hub that provides access to resources and tools essential to learning in the 21st century. The library/media center needs to provide large group and small group learning spaces that allow for both quiet and collaborative work. Flexible space with moveable and varied furniture will allow numerous configurations for work and learning. Space for computers and easy access to technological devices should be prevalent while at the same time there is a need for spaces where students can use non-technical devices comfortably and without being disturbed. There should be an allowance for integrated office space, workroom, and storage space to be used by the library media center staff and volunteers. In Brookline elementary schools, it is typical to have a book room integrated into the library that is overseen by the librarian where class sets of books are available for teachers to access for their classes and reading groups. A well-provisioned school book room is a vital element of our literacy efforts. Beyond use by students and educators, the library/media

center or an adjoining space that is integrated into the library/media center will be used as community meeting space for the PTO and similar community-based organizations.

Mathematics

The goal of the mathematics program in Brookline is to meet the needs of all learners so that they become critical problem solvers and reflective thinkers about mathematics in our evolving global, technological, and digital world. We also seek to stimulate interest and curiosity in the field of mathematics to develop students' passion and interest in a math career.

The mathematics program is grounded in the 2011 Massachusetts Curriculum Frameworks for Mathematics, in both Standards for Mathematical Content and the Standards for Mathematical Practice. Brookline's transition to the new standards started with focused attention on students' learning through the eight Standards of Mathematical Practice. In addition, for students in K-5, we increased the focus on the critical areas of *place value*, addition, subtraction, multiplication, division, fractions and decimals with an emphasis on understanding and application.

The most effective instruction for in-depth math content and deliberate attention to mathematical practices places different requirements on the physical space. Instruction varies, in that there are opportunities for individual learning, pairs and small groups, and whole-class instruction. Teachers need the space to change as instruction changes – furniture easily reconfigured for different groups, technology easily employed throughout the room, ample space so that students can spread out and use a variety of objects to manipulate and see the math, projection with robust Internet access to show real-life applications and simulations, examples of mathematical models, and sharing student work. Appropriate, safe and secure storage space is also critical to accommodate the various manipulative materials that students use to explain their mathematical thinking and problem solve.

The needs of the physical space in K-5 for math are mirrored in the middle grades. In grades 6-8, students continue this progression to geometry, algebra, probability and statistics, again focused on student learning and application. Brookline teachers use instructional materials from chosen curricula, as well as those developed by the Math Department to align with the content and practice standards. Teachers utilize instructional practices and mathematical experiences that are accessible to all, and provide opportunities for all students to engage in meaningful mathematics. There are opportunities to work with other teachers to integrate the disciplines and highlight STEM project-based opportunities.

Students are supported and challenged in various ways through teacher collaboration with Math Specialists. In addition, we are piloting adaptable universal screening assessments and instructional support programs in different grades across the schools. This will help us target student-learning needs across the units of the math curriculum and across all grades.

Students who show mastery of grade level standards engage in extensions that allow them to investigate math concepts more deeply. Also, with the support of Enrichment and Challenge Support (ECS) teacher, teachers will engage students in challenging authentic projects that require a deep understanding of the topic. As with all other examples, this type of creative investigation requires flexible educational spaces. Students also have opportunities to engage in online coursework, requiring access to devices and robust Internet connections.

The math specialists at the 9th Elementary School, who provide individual and small group support across all grade levels, require adequate office and teaching space. The office and meeting spaces should be located within the grade level clusters and professional workspace described below in the Professional Learning and Teacher Planning section. The space is used for collaborative planning, coaching teachers, and intervention work with students. For interventions and pullout services, math specialists need well-equipped learning spaces with access to the appropriate technology that supports math learning and assessment. The space should be adaptable to accommodate students of various ages as specialists work with students across all grade levels. Teachers and students will benefit from the office size, storage facilities, flexible configurations of space, and location. Proximity to classrooms as well as other specialists (literacy, ECS) is important due to the frequent student transitions to and from the Math Center, and the ongoing collaboration between specialists.

Performing Arts

The Public Schools of Brookline is proud to continue a tradition of a strong performing arts department. Each K-8 school has music instruction for all students across all grades. In grade four, all students begin the study of a string or band instrument, and then choose to participate in band, orchestra, and choral ensembles in grade 5. In grades 6 through 8, students may continue with band, orchestra, or chorus or take classes in music production, guitar, or general music. It is anticipated that the 9th Elementary School will host a variety of music concerts (choral and instrumental) and a musical theater production during the school year. Performances will require a space has a capacity of at least 300 people.

Physical Education

The physical education department provides standards-based instruction to all students across grades, K-8. Students participate in quality instructional physical education programming twice per week, for 40-45 minutes in each class. The curriculum is presented in accordance with the Massachusetts Frameworks and the National Standards for Quality Physical Education. The curriculum follows a developmental sequence from body management competence, to fundamental skills, to specialized skills, while simultaneously addressing physical fitness and social skills.

As described in the School Scheduling Method section we require two gyms where the larger one can be divided so two classes can use it concurrently without disturbing each other. The school requires the capacity to accommodate three classes happening simultaneously. The physical education facilities will require ample and appropriate storage space for large physical education equipment and supplies that can be easily accessed and set up in either of the two gyms. In addition to the two gyms, having a fitness and workout room that can be utilized with exercise machines and/or wellness classes would allow us to modernize our physical fitness and wellness classes.

The physical education department utilizes technology to enhance teaching and learning. Teachers engage students with the use of Polar Heart Rate Monitors, multiple iPad apps for instruction, monitoring student performance, taking pictures and videos, and the web-based Polar GoFit fitness assessment. The anticipated use of similar technology requires a facility with continuous wireless access and safe, secure storage.

Health Education

Students receive instruction in health education, in grades 7-8, two times per week. Health education is aligned in the Massachusetts Curriculum Frameworks and National Standards for Health Education. We strive to provide a “wellness” approach to student learning and well-being. Wellness encompasses a culture of holistic well-being focused on educating, promoting and supporting all dimensions of health (physical, mental/intellectual, emotional, social, ethical) in order to live a longer, healthier, and more productive life. Health education is skills-based, offering students continuous opportunities to practice skills such as analyzing influences on health behaviors, decision-making, goal setting, and communication to enhance health and avoid or reduce risk behaviors. Health classes would require a classroom for instructional delivery. The classroom needs to be large enough to allow for various student groupings and student movement.

Science and Engineering

The Brookline PreK-8 Science & Engineering program is designed to actively engage students in their own learning using hands-on inquiry, outdoor learning, intriguing materials, science

notebooks, scientific tools and high quality media (books, video and online resources) accessible to all learners. The curriculum integrates science/engineering content, science and engineering practices, and crosscutting concepts and is aligned with the new Massachusetts Science Technology and Engineering Curriculum Frameworks that are based on the national Next Generation Science Standards. Also in an effort to inspire students to think of themselves as scientists and engineers and to reflect on how they use science/engineering practices throughout their learning we utilize the Nature of Science curriculum where students address questions such as: What is science? Who are scientists? How and where do they work? How does science change over time based on new evidence and tools?

In order to implement our robust and rigorous hands-on, inquiry-based science and engineering curriculum, teachers require flexible spaces that invite and promote creativity, innovation, and collaboration. These spaces require the use of movable tables so that open spaces can be created to allow for projects-based learning. Every classroom needs to be equipped with wall space for recording questions and ideas, sinks to provide water for investigations and cleanup, space for storing tools and “making” materials (glue guns, cardboard, etc.), and adequate storage space for science materials. Sunny windows are needed to grow plants.

Three middle school science labs need ample, flexible space for students to work and for the safe storage of science materials and supplies. Specific needs of a science lab are in addition to the general design and development of other contemporary teaching spaces – wall space for visuals, projection area(s), technologically versatile, natural light, flexible furniture, etc. Storage space for tools and other “making” materials needs to be provided.

Outdoor learning is built into the PreK-8 science and engineering curriculum. We envision using the outdoor spaces of the school as learning labs (providing field trips right outside the school doors). Students can observe and study the natural world in areas that attract birds and butterflies through the planting of native plants. For example, students will have the opportunity to study rotting logs, birds at birdfeeders, grow vegetables, create a milkweed/wildflower meadow to attract monarchs and other butterflies, and much more. Outdoor seating areas are also needed so that classes can go outside, not only to study science, but also to listen to stories and do other group work.

In addition, we are integrating design thinking and “making” (creating solutions to real world problems) into the curriculum. As such, all classrooms need to be equipped with tool walls and spaces for paper cutters, glue guns, and other making materials. Design walls that students can use to record their questions and ideas also are needed.

Although students will be “making” (solving real world problems by creating solutions) in their classrooms, a stand-alone makerspace (an updated version of an industrial arts shop) is needed to allow students to have a place to extend their projects. This space will provide a common area where students of all ages can meet before, during or after school to collaborate and pursue problems that are of interest to them. This space will need to be equipped with sinks, design thinking walls for recording ideas and questions, tools, tool walls, sewing machines, etc. as well as spaces for laptops.

In addition the inclusion of a Fab Lab that blends STEM (Science, Technology, Engineering and Math) skills into a unique learning opportunity would appeal to all students. Fab Labs, which are embedded in technology, allow for different learning styles to be embraced and create a collaborative environment in which students can make their ideas tangible and engage deeply in their learning. In the Fab Lab, students learn how to be project managers, engineers and designers – all at once. The lab simulates the research and development process and allows students to make everything from furniture to action figures to circuit boards. They learn what it takes to turn an image in their heads into an image on a computer screen and ultimately into a physical prototype. Typically a Fab Lab will contain equipment such as a three-dimensional (3D) printer, vinyl cutter, laser cutters/engravers, a milling machine or a computer-guided router. Such a lab will serve as hub of invention, creation, discovery, inquiry, and sharing for students of a wide range of interests and abilities.

Ideally, the library, makerspace Fab Lab, and art rooms would be a combined or co-located area for innovation.

Social Studies

The K-8 social studies department has been deep in the process of curriculum revision and renewal. Across the grades, the curriculum coordinator, in collaboration with teacher-teams, develop new units of study and common assessments at every grade level. The skills and habits of social scientists are a thread throughout the revised curriculum. Professional development for teachers accompanies each new unit of study. Examples of content include: civics, physical and human geography, economics, and US and world history. Along with content, teachers are developing strategies for explicit literacy instruction, including how to make difficult primary texts accessible to all students and disciplinary literacy instruction. Each unit lesson includes modification and differentiation suggestions, assessment options, and identification of natural connections to other subjects to support the development of interdisciplinary units.

Teachers continue to incorporate more technology into social studies teaching, enabling them to access real-time data, utilize digital textbooks and atlases, and support the development of digital literacy that includes Internet research, online student learning activities, and diverse instructional strategies to accommodate all learning styles. Students are also taught media literacy skills to prepare them to be discerning media consumers and critical thinkers.

The social studies curriculum and instruction demand physical spaces similar to the other subjects – flexible, accessible, safe and secure storage, and wall space for visuals and student work displays. To make sure 21st Century learners can engage in classroom activities, classrooms require a combination of electrical outlets and power strips that are distributed through the classroom, along with a smart teacher control panel with USB ports that allow for easy document camera connections, interactive whiteboard equipment controls, and speakers. In addition, teachers need to be able to control natural and artificial lighting quickly. Lastly, the physical space available to students needs to go beyond the single classroom, extending into collaborative environments with breakout, presentation, and display space beyond a single room.

Visual Arts

The Public Schools of Brookline has a vibrant visual arts program that provides students repeated opportunities to develop observational skills, decision-making skills, and craftsmanship using art as the visual language to communicate ideas and demonstrate understandings. The visual arts program has a K-12 continuum of key understandings, concepts, and processes as the framework for its curriculum. The department continues to collaborate with other coordinators and teachers to create more interdisciplinary units in the K-8 curriculum.

The 9th elementary school provides an opportunity to update how we think of the physical space for visual arts instruction. The renovation can provide what's needed: two art classrooms with ample natural light and with enough space for the largest class to sit a maximum of four students per table. Also, the visual art classrooms need a separate storage closet for materials, equipment, and teacher preparation. The visual art classrooms also require ample storage capacity within the classroom for artwork in process. The layout of the classroom should separate the worktables from preparation/sink areas. Multiple sinks at appropriate student height, and furniture and amenities (i.e., sinks), scaled to meet the needs of each grade level clusters, are required. A separate kiln room attached to the classroom is required. A contemporary visual art classroom needs a technology/media station (computers with photo/video software and Internet access) set-up to serve 4-6 students located away from paints and clay preparation.

There should be ample space for whole-class demonstrations and exhibiting exemplary artwork on the walls. In the corridor outside the visual art classroom, as well as in corridors throughout the school, there should be ample wall space designed for student artwork to be exhibited, including a 3D wall case centrally located in the school. Displaying student work throughout the school is essential for: building a sense of pride and ownership of the space and the school; providing a public audience which serves as a natural motivator for students; and for providing models of high quality work that help to set expectations for students.

World Language

Brookline is fortunate to have a K-8 world language program that immerses students in language and culture beginning in Kindergarten, with the ultimate goal of intermediate level proficiency for students at the end of grade 8. The curriculum is based on the “5 C’s” of the World-Readiness Standards for Learning Languages: Communication, Cultures, Comparisons, Connections and Communities, and builds a solid foundation in oracy, the partner of literacy in language learning, in grades K-5. While literacy entails the ability to read and write fluently, oracy is fluency in listening and speaking, or oral/aural language. Lessons are carried out through the use of songs, games, books, and other interactive activities designed to develop real-world communication skills rather than learning vocabulary words in isolation.

K-5 world language instruction takes place in the grade level classroom, and therefore is directly impacted by the distribution of classrooms throughout the building, individual classroom space, as well as individual classroom set-up. World language teachers need ample room to enter and navigate their teaching cart to the “rug area” (particularly in grades K-2) or the projection space/instructional area of the classroom. Space for full access to all sides of the cart is required: drawers on either side hold materials; a laptop and teacher organizational materials as well as large posters/books are in the rear; a magnetic white board, the center of instruction, holds a variety of visuals and other materials to support understanding of target language lessons. Grade-level classrooms clustered together would minimize world language teacher travel time between lessons within a grade level, allowing the world language and classroom teacher to touch base at the end of a lesson, to exchange quick observations about a particular student during a lesson or to debrief an element of a lesson during the 5-minute travel time.

As K-5 world language teachers do not have one classroom in which they teach, a common office space is needed for them with a desk for each teacher, ample storage for K-5 world language materials, and space to meet with other teachers and parents.

With a solid foundation in oracy, students are well prepared to move into literacy-based language instruction in grades 6-8. Students choose the language they wish to study in grades 6-8 from a choice of two languages, and therefore a minimum of two world language classrooms will be needed. The needs of the physical space in K-5 for world language are mirrored in the middle grades. In grades 6-8, students continue to focus on oral proficiency while also developing skills in the interpretive and presentational modes of communication. Authentic materials in the target language become an essential source of input for students, requiring individual and group access to technology. Flexible space is needed for students to circulate to talk with each other or to work individually, in pairs or in small groups.

Enrichment and Challenge Support Program (ECS)

Many students enter a grade with experiences and/or developmental sophistication that allow them to grasp concepts quickly and easily, with little repetition. These students need opportunities to apply what they know and investigate the curriculum in more depth. Some students show a level of advanced understanding that requires a more specialized response from teachers, providing time and opportunity for self-directed investigations and projects. A very small number of students may require very specialized interventions that extend outside the traditional classroom walls. The PSB Challenge Framework is a system of interconnected supports for addressing the range of needs of students who show advanced understanding of the curriculum and/or innovative and creative problem solving skills beyond their peers. We have recognized the need to shift to a classroom-centered approach that includes, but is not limited to ECS resource teachers who have expertise in designing learning that is connected to the curriculum and addresses the needs of individuals through a project-based learning approach.

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 Resource Teachers spend most of their time collaborating with classroom teachers in conjunction with other specialists. Collaboration among classroom teachers and ECS teachers 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.*

In support of this collaboration with classroom teachers, ECS Resource Teachers should be located in one of the collaborative workspaces in the grade level clusters so they can easily plan with and debrief lessons together. In addition, ECS Teachers will occasionally pull out students to facilitate small groups of students on Tier II enrichment interventions.

The Enrichment and Challenge Support Program is a vital component of the Public Schools of Brookline Challenge Framework and requires many of the same structural classroom components as other content areas such as: easily reconfigured furniture that lends itself to flexible student groupings and accessible areas where students can engage in the use of technology that provides Tier II interventions in the form of online courses and access to other online resources. Additionally, as mentioned in the Science section of the proposal a stand-alone makerspace and a Fab Lab are needed to allow students to have a space to engage in ongoing projects, and collaborate on and pursue problems that are of interest to them.

English Language Learners (ELL)

The English Language Learners (ELL) program provides services to students whose primary language is not English and who are not yet proficient in English. The program provides support at each school, with services focused on students' English language acquisition, literacy development, social integration, and academic achievement.

The ELL program serves students outside of the classroom and, therefore, needs its own space. Like special education, housing the ELL programs in the general vicinity of the grade level clusters is intentional. Wall space and storage is also important, given the use of visuals and the need for storage of the general education program materials made available to the teachers and students in the ELL classrooms. ELL classrooms will be reflective of other learning spaces – flexible, well provisioned, and accessible, and able to be used to support small group instruction and center-based learning.

10% of the student population in our schools are English Language Learners so in an 800 student school, we would anticipate that the ELL program will support upwards of 80 students or four classrooms in the 9th Elementary school. Small groups of students meet with ELL teachers several times per week both in and out of the classroom for direct English instruction. In addition to these four classrooms, to alleviate crowding in the North Brookline schools, the 9th Elementary School could become the home to one of the district-wide ELL programs. If this is the case, it will require an additional two classrooms.

Special Education and Student Services

Special education services throughout the district address the needs of identified learners with disabilities between the ages of three and twenty-two, who require specialized instruction to support access to the curriculum. A wide range of services is provided to meet the individual needs of students, from academic intervention to related services in areas such as speech therapy, occupational therapy and physical therapy. Availability of therapeutic services for students requiring special education intervention in the realm of social, emotional and adjustment areas is present at all schools and levels. Staff works closely with families in ensuring that necessary services are identified and provided to students in accordance with applicable mandates.

Inclusion is a core belief and practice in the Public Schools of Brookline. This educational model expects schools to meet the needs of all students by educating learners with disabilities alongside their non-disabled peers. The environment necessary to nurture and foster inclusion is built upon a shared belief system between general and special education, and a willingness to merge the talents and resources of teachers. An inclusive education helps prepare students with disabilities for an integrated adult life and builds understanding and acceptance within the broader community. In 2015-2016, 15.5% of 9th Elementary students in Brookline had disabilities.

Physical environment impacts learning for all students and especially for students with disabilities. The physical structure of the new school building should support our inclusive approach, our commitment to providing all students an appropriate education in the least restrictive environment, and our system-wide special education programs. It is important that every student has an authentic sense of belonging and feels safe in their school. Clustering grade levels, integrating special education classes and spaces throughout the school, and providing services to students in close proximity to their cohort peers are examples of how the design of the school can support the academic and social-emotional learning goals for students with special needs.

The location of the classrooms allows staff to communicate and collaborate fluidly throughout the day on student needs and programming. To support teachers, special educators and families, the school based Education Team Facilitator (ETF) should have office space within one of the grade level cluster teacher work areas described in the Professional Learning and Teacher Planning section, and there should be one conference room that is primarily used for IEP meetings and Child Study Team meetings. This conference room should be able to hold at least 12 people comfortably.

Additionally, the new school should provide equitable access to high quality learning spaces and classrooms that are comparable in every way to general education classes. Equitable access begins

with being fully ADA compliant and includes equity in classroom quality, access to natural light and windows, the size of rooms as well as proper heating and ventilation. Special education classrooms need to be flexible and easily reconfigured, given that different students are served in the same space at different times. In addition, accessibility to a wide variety of technology options is essential. Assistive technology plays a critical role in supporting engagement and learning for students with special needs. Different devices and equipment for different purposes need to be available with supports for quick set-up and secure storage.

Learning Centers

Each Brookline school has Learning Center rooms that support students with special needs. Learning Centers are designed for students with varied disabilities who require a flexible level of services both inside and outside of a general education classroom. The Learning Centers are classroom spaces within which special educators conduct small group instruction, social skills groups, and collaborate with other related service providers to support students. Learning Center classes have a low staff to student ratio allowing for increased individualization. Students may receive higher levels of direct, specially designed instruction in academic areas within the Learning Centers. There should be three Learning Center rooms in the building with one located in each of the K-2, 3-5, and 6-8 areas. Within each Learning Center room there should be adequate space for academic support, social skills instruction, an area for sensory support and quiet academic work.

Specialized Programs

Given the demand for space throughout Brookline and the increasing enrollment demands in district-wide programs, the building of a new school facility gives the school district the opportunity to build a state-of-the-art, flexible and inclusive space that can be used for district-wide special education programs. It is anticipated that the new school would provide a home to one of the district-wide specialized programs such as a Therapeutic Learning Center for students with complex emotional and behavioral challenges or the RISE program for children on the autism spectrum.

Programs like the TLC and RISE are typically organized into smaller rooms that serve between 4 and 10 students who have a higher ratio of adults working with them in that classroom. Each TLC or RISE classroom requires a defined therapeutic space within or adjacent to the classroom that can be used for relaxation. Each classroom also requires a separate room where students and staff work together on de-escalation when needed. Either program would serve a range of ages in their classrooms and be organized into K-2, 3-5, and 6-8. RISE classrooms require an adjoining bathroom that should not be located near the relaxation space. All told, the 9th Elementary School should

include a total of three classrooms for specialized district-wide programs that should be placed within or near the appropriate grade level cluster.

Student Services

In addition to the special education services our educators provide, other essential services and support are provided by a wide range of specialists including school psychologists, social workers, speech/language pathologists, occupational therapists, physical therapists, nurses, and guidance counselors. In many cases, these positions are shared among more than one school, but together they represent a team-based approach to supporting students and families at the elementary level in Brookline. In order to provide coordinated services and promote collaboration among these professionals the 9th Elementary School should be organized into two “suites” – a Guidance and Therapy Suite and a Health Services Suite -- that are easily accessible to all students.

Guidance and Therapy Suite

The Guidance and Therapy Suite should have two separate but connected areas. One of these areas would include individual spaces for an occupational therapist, a physical therapist, and a speech therapist. The speech therapist is likely to support more students than the other therapists. The second area would have offices for two guidance counselors and one school psychologist. All of these spaces should allow for privacy but include doors with windows that can be covered as necessary. The suite should have a small area where students can wait prior to receiving services.

Health Services Suite

The Health Services Suite houses the nurse and allows students to be checked, receive services, or wait comfortably for a parent, guardian or family member to pick them up. The Health Service Suite requires an entry or reception area where students can await services, a treatment area that includes three or four cots/beds, and a space for private meetings and confidential consultations. There should also locked storage, a sink, and a refrigeration unit.

Functional Life Skills

Brookline can use the new school to develop our approach in the area of functional life skills that begin to prepare lower functioning students for life beyond middle school and high school. The curriculum will emphasize daily living skills, community skills, employment skills, and social skills that students will need across a range of settings, including leisure and recreation activities. To support the development of these daily living skills, the 9th Elementary School should include a school store or other retail environment that will serve as a functional academic lab to teach skills which allow each student to succeed in real-life situations at home, school, work and in the community. The functional academics curriculum that would be implemented in conjunction with the operation includes a range of areas, namely:

- Pre-requisite concepts
- Math, including time and money
- Activities of daily living, including social skills
- Literacy (reading, writing, and speaking)

The store will serve the needs of the special education population, and will provide opportunities for children on the autism spectrum, one to one teaching for speech and occupational therapy services, and opportunities for small group instruction with real-world applications for a range of students. Of note is that both typical and disabled students will use the store, therefore, the store will provide an important social inclusion opportunity for all students.

SCHOOL CULTURE AND SOCIAL EMOTIONAL LEARNING

It is the mission of the Public Schools of Brookline (PSB) to ensure that every student develops the skills and knowledge to pursue a productive and fulfilling life. To truly live this mission, it is essential that our schools are safe, welcoming, respectful and nurturing. Such a culture is created when everyone in the school is aligned to requisite beliefs, values, and behaviors. Children need to learn these beliefs, values and behaviors, and adults need to model, guide, and explicitly teach them to children using intentional strategies in order to establish a culture conducive to learning.

To support a positive, collaborative, and welcoming culture, the physical structure of the school needs to provide gathering spaces to promote social interaction and engagement among students and adults. The new 9th Elementary School needs to facilitate and encourage connections among grade levels and across the disciplines, be welcoming by design, and show evidence of collaboration, respect, and high expectations with student work prominently displayed throughout the school, all of which support the social emotional learning of students

Responsive Classroom (K-5) and *Developmental Design* (6-8) currently represent the core social emotional curriculum in Brookline. Our approach to social emotional curriculum requires classroom meeting areas to conduct “morning meetings” in grades K-5 and advisory groups in grades 6-8. Each classroom should have an area available for these class meetings and other similar functions that is appropriate for the age range.

OUTDOOR SPACE FOR PHYSICAL ACTIVITY

The use of outdoor spaces for physical education, athletics, recess, and curriculum-based learning will be an integral part of the learning at Brookline's new PK-8 elementary school. While playing fields at Soule Recreation Center are expected to be accessible during the school day for physical education classes, dedicated and age appropriate playground space is needed for the all grades. A playground specifically for PK-2 grade cluster is necessary with easy access for these grade levels, as they may have more than one recess per day. Space for grades 3-5 and 6-8 play areas can be integrated as long as they contain a variety of spaces and structures appropriate for the broad developmental and recreational needs of this age span.

A School Garden, maintained by staff and students and integrated across the K-8 science curriculum, should be easily accessible from an exit in close proximity to classroom clusters to ease access during class periods for a variety of grade levels.

PROFESSIONAL LEARNING AND TEACHER PLANNING

The new elementary school's physical spaces will support a culture of professional learning characterized by: shared norms and values; a focus on student learning; making professional practice more visible; collaboration; and, inquiry, reflection, and analysis. We have moved past the mindset of a classroom teacher only being responsible for the general education students in his or her classroom toward a team approach that better balances the essential community of a classroom with the collective responsibility of a team of adults ensuring every student succeeds. The physical spaces where teachers meet and collaborate need to support this shift towards a professional learning culture and teams of adults taking responsibility for all of their students succeeding.

As designers of learning, teachers will spend time planning with colleagues to create the best learning experience for all students. Educators need appropriate and well-provisioned spaces to gather to discuss student learning, share instructional practices, analyze data, determine next steps for instruction, participate in webinars, review student work, vet online resources, and read and discuss the contemporary literature of the profession. Each grade level span (PK-2, 3-5, and 6-8) will require the meeting space necessary for this variety of professional collaboration and learning. The hub of each grade level cluster should be a work area for teachers that replaces individual, isolated desks within a classroom. This work area should have tables for group work, storage for materials and professional resources, and individual workspaces. Adjacent to this work area will be a conference room for meetings for grade-level teacher teams

Professional learning also includes instructional coaching by staff members in a variety of roles including: Math Specialists, Literacy Specialists and Literacy Coaches, Educational Technology

Specialists (ETS), Librarians, Enrichment and Challenge Support (ECS) teachers, and Inclusion Facilitators and Inclusion Specialists. Math and Literacy Specialists, Literacy coaches, ETS's and Inclusion Facilitator and Specialists should be embedded in the grade level hubs described above so when they are not in classrooms, they are easily accessible to teachers integrated into the work of teacher teams, and can provide support to colleagues and easily

DRAFT

LUNCH PROGRAMS

The mission of Food Services is to provide healthy, tasty, high-quality, sustainable, affordable meals to the students and staff of the Public Schools of Brookline. Breakfast and lunch are served at all nine schools in the district. As part of the National School Breakfast and Lunch Program, we follow guidelines set by the USDA regulating what qualifies as a healthy breakfast and lunch. Meals are cooked from scratch, using real food, and we are continually looking for ways to improve our school meals.

The 9th Elementary School cafeteria should be large enough so that the entire school is able to eat lunch over the course of three lunch periods. An appropriately sized cafeteria will ensure that the 9th Elementary School can both start and end lunch at appropriate times.

Students typically pay for lunch using online accounts that allow families to pre-pay for student meals and provide easy access for food service workers to children's allergy information and dietary restrictions.

TRANSPORTATION POLICIES

The Public Schools of Brookline provides bus transportation for K-8 students residing more than 2.0 walking miles from their districted school. These students are transported at district expense. All students in Grades K-6, who live less than 2.0 miles from their school, are responsible for their own transportation. The district does make exceptions for students whose needs are “safety” related. K-6 students who live 2.0 miles or more from the school may opt to purchase a bus pass in accordance with the MBTA fee schedule. Special education transportation services are separate from regular bus transportation.

The 9th Elementary School will have multiple busses. In addition to busses for any specialized programs for students with disabilities and one Boston bus for METCO students, we believe several additional buses will be required to transport students to and from school.

FUNCTIONAL AND SPATIAL RELATIONSHIPS AND ADJACENCIES

The 9th Elementary School will serve South Brookline and will have a population of 800 students. Our schools enjoy an international reputation. Academically, we welcome students from all over the world, and socially, we reflect and respect human diversity. The 9th Elementary School will be a relationship-oriented community that practices and values inclusive partnerships and mutual support in all aspects of the school community. This is the overall spirit of the school that will drive the design of the facility.

Functional and spatial relationships and adjacencies are the key to the successful design of the new facility. These relationships between classrooms and programs in the school define the programmatic, functional, spatial, and environmental requirements of the educational facility and become the basis for the design at the next phase. The 9th Elementary School will rely upon adjacencies for communication, collaboration, flexible grouping, and teaming. Providing learning areas both in and outside classrooms for small group work, individual tutorial spaces, and additional instructional break out rooms are critical in a school with a focus on integrated classrooms at grades K-8, requiring specialized instruction and an emphasis on inclusive practices.

Community is a core value among students, staff and parents. The 9th Elementary School will be a warm and inviting place for children, staff and families. A priority for the students, staff and 9th Elementary School community is to bring a “small school” feel to the elementary school design. The 9th Elementary School will require a welcoming main office and community arrival space that can accommodate a large morning influx of students, as well as active dismissal procedures. The students, faculty and parent community in Brookline value spaces where the school community can gather to celebrate learning and to spotlight the arts through assemblies and performances. After school, extended day programming that will be provided until 6:00pm with several hundred students participating in this program daily. While the extended day program will utilize the learning spaces in the building, an administrative office with storage space will be needed.

SECURITY AND VISUAL ACCESS REQUIREMENTS

As with all Brookline schools, safety and security is of the utmost importance. Students, families, and our staff need to feel safe and secure in their school community in order to take full advantage of all educational opportunities. At the same time it is essential to provide the necessary level of security without impacting the building's physical organization or sense as an inviting and open learning environment for students, teachers, parents, and visitors. There needs to be a balance between the type of open, accessible learning spaces that encourage sharing and collaboration with the need to have safe and secure classrooms when needed. It is possible and necessary to prioritize light, glass, and openness and still institute necessary safety measures. Safety and security measures should be designed and integrated in ways that allow for future enhancements. The following features should be considered as part of the school design:

- Access Control to rooms and spaces that utilizes a security access fob device by authorized staff that can also be controlled centrally
- Visual Security of entrances utilizing a video monitoring/recording system that will be monitored at the school secretary's desk
- Safe and well lit staff parking
- Safe and well lit visitor parking
- Safe pathways for pedestrians and bicyclists coming from varied directions to the school
- Safe bus access systems that do not interfere with drop off and pick up traffic
- Safe recess grounds and play fields that can be properly supervised by staff and protected from vehicular traffic
- Open and easily visible front access to the school
- Safe access for kitchen, facility and shipping/receiving separate from school traffic at the main entrance
- Safe and appropriate access to the perimeter of the building and play fields