



September 22, 2018



PUBLIC SCHOOLS of BROOKLINE

ENVISIONING THE RENOVATED AND EXPANDED DRISCOLL SCHOOL




The Visioning Process




Connecting Design to the Brookline Ed Plan


- Learning is ubiquitous – extending beyond the classroom
- Information available through both teacher and technology access
- 4 C's of Critical Thinking, Communication, Collaboration and Creativity
- **Intelligence and talent expressed in a variety of ways:**
 - Applying knowledge
 - Creating products
 - Solving complex problems
 - Systems thinking
 - Design and testing
 - Knowing how to learn



Connecting Design to the PSB Strategic Plan

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.



Connecting Design to the PSB Strategic Plan

Goal 1: Every Student Achieving

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.

Connecting Design to the PSB Strategic Plan

Goal 1: Every Student Achieving

Goal 2: Every Student Invested in 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, every-changing global environment

Connecting Design to the PSB Strategic Plan

Goal 1: Every Student Achieving

Goal 2: Every Student Invested in Learning

Goal 3: Every student prepared for Change and Challenge

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

Focus on "Future Ready Skills"

<p>The 6 Rs</p> <p>Reading Writing Arithmetic</p> <p>Rigor Relevance Relationship</p>	<ul style="list-style-type: none"> • Student-Centered • Interdisciplinary • Technology-Infused • Fully-Inclusive • Differentiated • Community Connected • Problem & Project-Based • STEM and STEAM • Process & Product Oriented
<p>The 4 Cs</p> <ul style="list-style-type: none"> • Critical Thinking • Communication • Collaboration • Creativity <p>plus Citizenship</p>	
<p>Head & Hand</p>	
<p>Growth Mindset</p>	

Social Emotional Learning

Social & Emotional Learning Core Competencies



- Character education
- Growth Mindset
- Mental health
- Mindfulness
- Resilience and Grit
- Classroom management



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Student-Centered Learning

- Agency
- Higher Order Thinking
- Proactive Learning
- Problem Solving
- Organizational Skills
- Communication
- Confidence



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Student Engagement

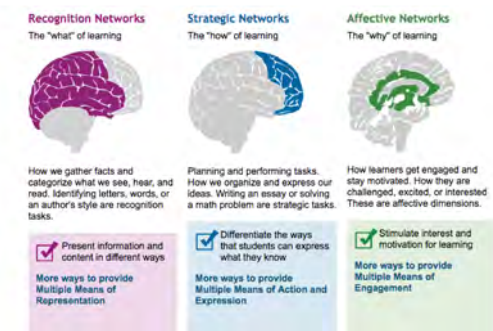
- Common Intellectual Mission
- Relationships
- Exhibitions
- Community Meetings
- Relevance
- Display



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Universal Designs for Learning

- Principles for curriculum Development
- Multiple means of:
 - Representation
 - Expression
 - Engagement
- Independent and small group work



Source: CAST - What is UDL? (<https://www.cast.org/research/udl>)

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Push-In / Differentiated Instruction

- Co-Teaching
- Learning Stations
- Equity and Access
- Varied Modalities and Venues



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Center-Based Instruction

- Materials for one type of subject grouped together
- Independent learning and exploration
- Child-accessible
- Hands-on and minds-on



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Health and Wellness

- Movement
- Varied Contexts for Learning
- Indoor/Outdoor Play
- Fitness (i.e. Yoga)
- Outdoor Connections



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Technology Integration

- Blended Learning 1:1
- Technology as a Tool
- Production of Technology and Information



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Anytime, Anywhere Learning

- Extended Learning Spaces and Times
- Self-Paced and Small Group
- Student Projects



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Real World Connections

- Authentic Contexts
- Performance Assessment
- Product Creation



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Hands-On Exploration

- Project-Based Learning
- Performance Assessment and Exhibition
- Product Creation and Display



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Maker Thinking and STEAM

- STEM as Meta-Discipline
- Art and Humanities as Glue
- Design Thinking Process



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Next Gen Science Standards

Science Practices <small>Next Generation Science Standards</small>	Ask Questions <ul style="list-style-type: none"> What am I observing? What does this evidence mean? What is the relationship between these variables? How can I make my model more accurate? What evidence do I need to answer my question? What hypothesis can I make based on my observations? Is the data used correctly in the argument? 	Investigate <ul style="list-style-type: none"> Use the Scientific Method State the goal of the investigation Predict outcomes Plan a course of action that will provide the best evidence to support conclusions Use scientific tools to make sure data can be considered evidence Reduce error in procedures 	Use Math <ul style="list-style-type: none"> Use computers to analyze very large data sets for patterns and trends Use mathematical representations to support scientific conclusions Create algorithms (a series of ordered steps) to solve a problem Use digital laboratory tools to observe, measure, record, and process data Make quantitative predictions 	Communicate <ul style="list-style-type: none"> Be a critical consumer of information about science Critically read scientific texts to determine the claims, issues and obtain scientific information to evaluate systems in evidence Use multiple sources to obtain information used to evaluate the validity of claims and methods Communicate ideas by using tables, diagrams, graphs, models, interactive displays, and equipment as well as quality of writing and discussion
	Design a Model <ul style="list-style-type: none"> Models provide diagrams, physical replicas, mathematical representations, analogies, and computer simulations Models highlight some ideas and simplify others Models are used to help find questions and solutions, to get data to predict, and to learn Models are based upon evidence. New evidence changes the model 	Analyze Data <ul style="list-style-type: none"> Construct and interpret graphical displays of data Use computers to tabulate, graphically represent data, visualize, and statistically analyze Use math to represent relationships between variables and identify patterns Take into account sources of error Is one variable the cause (control) or do both just happen at the same time (correlatory)? 	Explain <ul style="list-style-type: none"> An explanation indicates a relationship or causative relationships between variables that predict and describe phenomena Design investigations that generate data to determine explanations to questions Apply scientific reasoning to analyze why the data or evidence is adequate for the explanation or claim Construct an explanation using models and representations 	Argue <ul style="list-style-type: none"> Argue when investigating a phenomenon, weighing alternative ideas, building case models, and using evidence to evaluate claims Arguing happens when weighing competing ideas and methods Responsibly provide and receive critiques about one's models, and questions by citing relevant evidence and posing and responding to questions

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Teaming and Collaboration

- o Meaningful Integration of Disciplines
- o Cohort Groupings / Reduced Student Load
- o Teacher and Student Collaboration



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Arts Integration

- o Creative Expression and Communication
- o Active and Varied Display Venues
- o Music and Performance
- o Design and Maker Thinking



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After School Enrichment

- o Drama
- o Art
- o Sports
- o Coding
- o Robotics
- o Maker Thinking



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Common Core ELA Shifts

Common Core Shifts for English Language Arts/Literacy

- Regular practice with complex text and its academic language**
 Rather than focusing solely on the skills of reading and writing, the Standards highlight the growing complexity of the texts students must read to be ready for the demands of college and careers. The Standards build a staircase of text complexity so that all students are ready for the demands of college- and career-level reading no later than the end of high school. Closely related to text complexity—and inextricably connected to reading comprehension—is a focus on academic vocabulary words that appear in a variety of content areas (such as sight and content).
- Reading, writing and speaking grounded in evidence from text, both literary and informational**
 The Standards place a premium on students writing to sources, i.e., using evidence from texts to present careful analyses, well-defended claims, and clear information. Rather than asking students questions they can answer solely from their prior knowledge or experience, the Standards expect students to answer questions that depend on their having read the text or texts with care. The Standards also require the substance of narrative writing throughout the grades, and in later grades a command of expository and detail will be essential for effective argumentative and informational writing.
 Likewise, the reading standards focus on students' ability to read carefully and grasp information, arguments, ideas and details based on text evidence. Students should be able to answer a range of text-dependent questions, questions in which the answers require inferences based on careful attention to the text.
- Building knowledge through content-rich nonfiction**
 Building knowledge through content-rich non-fiction plays an essential role in literacy and in the Standards. In K-5, building the standards requires a 50-50 balance between informational and literary reading. Informational reading primarily includes content-rich non-fiction in history/social studies, science and the arts. The K-5 Standards strongly encourage that students build content general knowledge both within each year and across years in K-12. ELA classes also must provide attention to a specific category of informational text—literary nonfiction—that has been traditional. In grades 6-12, the Standards for Literacy in History/social studies, science and technical subjects ensure that students can independently build knowledge in these disciplines through reading and writing.



- Complex Text
- Academic Language
- Evidence from Text
- Building Knowledge
- Content-Rich Nonfiction

Common Core Math Shifts

Common Core State Standards Shifts in Mathematics

- Focus strongly where the Standards focus**
 Focus: The Standards call for a greater focus in mathematics. Rather than racing to cover topics in a rote, wide, much-deep curriculum, the Standards require us to thoughtfully review and design the way time and energy is spent in the math classroom. We focus deeply on the major work¹ of each grade so that students can gain strong foundations, solid conceptual understanding, a high degree of procedural skill and fluency, and the ability to apply the math they know to solve problems inside and outside the math classroom.
- Coherence: think across grades, and link to major topics within grades**
 Thinking across grades: The Standards are designed around coherent progressions from grade to grade. Learning is carefully connected across grades so that students can build new understanding onto foundations built in previous years. Each standard is not a new event, but an extension of previous learning.
 Linking to major topics: Instead of allowing additional or supporting topics to distract from the focus of the grade, these concepts serve the grade-level focus. For example, instead of data displays as an end in themselves, they are an opportunity to do grade-level word problems.
- Rigor in major topics² pursued**
 - conceptual understanding,
 - procedural skill and fluency, and
 - application with equal intensity
 Conceptual understanding: The Standards call for conceptual understanding of key concepts, such as place value and ratios. Students must be able to access concepts from a number of perspectives so that they are able to see math as more than a set of memorized or discrete procedures.
 Procedural skill and fluency: The Standards call for speed and accuracy in operations. Students are given opportunities to practice core functions such as single-digit multiplication so that they have access to more complex concepts and procedures.
 Applications: The Standards call for students to use math fluently for applications in problem-solving contexts. In content areas outside of math, particularly science, students are given the opportunity to use math to make meaning of and access content.



- Concepts and Skills
- Problem Solving
- Thinking Across Grades
- Conceptual Understanding
- Fluency
- Application

Academic/Growth Mindset

Hierarchy of Learner Needs



... Integrity, responsibility and Perseverance...



PUBLIC SCHOOLS of BROOKLINE

Design Patterns

New School Design Patterns

Greeting and Gatekeeping

FTM chula Vista - Studio E

Field School - JLA

New School Design Patterns

Welcoming Entry

HTMA New Vista with Carrier Johnson

New School Design Patterns

Safety and Security

ENTRY VESTIBULE QOR-1A/1

ENTRY VESTIBULE QOR-1B

ADMIN SUITE 101

CONFERENCE ROOM 101A

SMMA

New School Design Patterns

Wayfinding and Streetscapes

High Tech Middle - Carrier Johnson and New Vista

New School Design Patterns

Clusters of Learning

UPPER SCHOOL GRADE 6 | SHARED CORE SPACES | LOWER SCHOOL GRADES K-5

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Hunking K-8 – New Vista with JCJ

New School Design Patterns

Learning Communities

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New School Design Patterns

Classroom Neighborhoods

SPED Resource
Team Room
Teacher Planning
General Classroom

West Bridgewater MHS – Flansburgh / New Vista

New School Design Patterns

Agile and Flexible Classrooms

SMMA

MLK Lower School - Perkins Eastman

New School Design Patterns

Flexible Furniture

Anzak Park Elementary - Sydney

VS Furniture

New School Design Patterns

Student Configurable Environments

JLA
Architectural & Interiors LLC

New School Design Patterns

Classroom Zones

City Neighbors - Isaacson


New School Design Patterns

Extended Learning Spaces


Birralee Primary / School Thompson Architects

New School Design Patterns

Learning Commons – Multi-Purpose Space



Groveland Elementary School - ATSP Architects



New School Design Patterns

Gathering Spaces



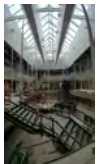





McAuliffe Elementary - HMFH



New School Design Patterns

Community Collaboration Space

New School Design Patterns

Small Group Collaboration Spaces





New School Design Patterns **Hallway Learning**

Grover Elementary - JCG
Portsmouth Middle School - JCU
Runkle K-8 - DPC/Perkins Eastman

New School Design Patterns **Anywhere, Anytime Learning**

ATS&R Architects

New School Design Patterns **Push In Special Education**

AI3 Architects

New School Design Patterns **Varied Spaces**

Da Vinci Schools - Gensler/New Vista

New School Design Patterns Quiet Spaces

The Roper School
Collegiate School

HMFH ARCHITECTS

New School Design Patterns Nooks and Caves

Buckingham County Elementary - VMDO
McAuliffe Elementary - HMFH

New School Design Patterns STEM/STEAM Adjacencies

STEAM cluster

Winthrop Middle High School
HMFH ARCHITECTS

New School Design Patterns Teacher Teaming

Field School - JLA

New School Design Patterns **Community Access**

A detailed floor plan of a school building. An orange circle highlights the entrance area, which includes a large open space, a reception area, and several smaller rooms. The rest of the plan shows various classrooms, a cafeteria, and other school facilities.

New School Design Patterns **Distributed Resources**

HTM - Carrier Johnson and New Vista

A floor plan of a school building with a legend below it. The legend includes: Circulation (light blue), Commons (yellow), Offices (green), Support (dark blue), Seminar Rooms (medium blue), Studio (light grey), and Specialty Labs (dark green). The plan shows a central commons area with various rooms distributed around it.

New School Design Patterns **Child Scaled**

CORRIDORS AND CLASSROOMS AT THE SCALE OF A CHILD

Jacobs Elementary – T2 Architects and New Vista

A floor plan of Jacobs Elementary school. To the right of the plan are two photographs: one showing a brightly lit, child-scaled corridor with colorful walls and ceiling, and another showing a classroom with low wooden shelves and tables. The floor plan highlights the layout of these areas.

New School Design Patterns **Blended Learning**

Linder STEAM Academy

Two photographs showing students in a classroom. The left photo shows a group of students sitting around a table, some using computers. The right photo shows a student using a computer while another student looks on. The text 'Linder STEAM Academy' is visible in the bottom right corner of the right photo.

New School Design Patterns



Distributed Dining Cafeteria Zones



MLK Lower and Upper School - Perkins Eastman

New School Design Patterns

Professional Work Areas



Great Oaks Charter - KSS

Dearborn - JLA

New School Design Patterns

Visible Learning and Transparency

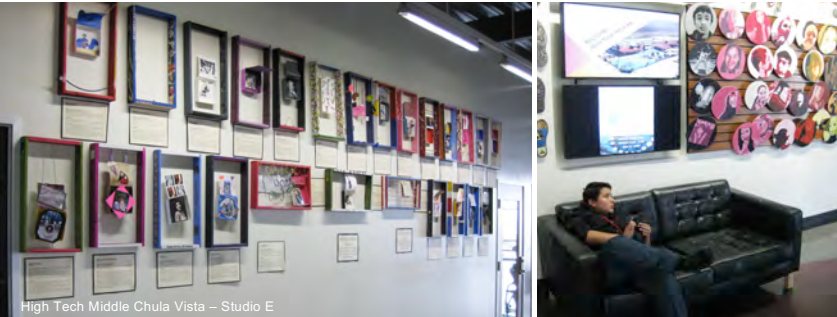


City Neighbors K-12 - Issacson

Chula Vista Middle - Studio E

New School Design Patterns

Display and Exhibition



High Tech Middle Chula Vista - Studio E

New School Design Patterns Outdoor Connections

HMFH Architects

New School Design Patterns Engaged Outdoor Play

HTH North County - Studio E
HTHCV K-8 - Studio E

New School Design Patterns Outdoor Gardens

Runkle K-8 - DPC/Perkins Eastman

New School Design Patterns Sustainability

HTHCV - Studio E
High Tech Elementary - North County C - Studio E

New School Design Patterns

Building as Teacher



Energy Consumed

MLK Lower School - Perkins Eastman

New School Design Patterns


Branding and Identity



Da Vinci Schools – Gensler and New Vista

New School Design Patterns

Media Space as Gathering Hub



Field School – JLA

MLK Lower School - Perkins Eastman

New School Design Patterns

Maker Spaces and FAB Labs



Possible Project – HMFH

Explorer Elementary – Studio E

New School Design Patterns

Cyber Dining



City Neighbors - Isaacson

New School Design Patterns

Enrichment Spaces



New School Design Patterns

Thoughtful Renovation



City Neighbors School - Isaacson

New School Design Patterns

Adaptive Reuse

flexibility in spaces and furniture... while getting natural light deep into the corridors



New School Design Patterns

Timeless and Traditional



Elliott Street School – Finegold Alexander

New Hingham Elementary School – Turowski 2

New School Design Patterns

History and Storytelling



West Bridgewater MHS – Flansburgh/New Vista

Da Vinci Science

Which Design Patterns resonate most for the Driscoll School?

Blue Sky Ideas
Write about one or more aspirational idea(s) and/or or space you would like to see take shape within the Driscoll School renovation and expansion project.

