

SHARED VISION OF THE FUTURE FOR OUR PRE-K TO 12 STUDENTS



# DISTRICT PLANNING PROCESS & STRATEGIC FRAMEWORK FY20-FY25



Needham Public Schools 1330 Highland Avenue Needham, MA 02492

- Submitted to Needham School Committee MAY 7, 2019 -

# PORTRAIT OF A NEEDHAM GRADUATE COMMITTEE

The following representatives from our stakeholder groups (students, educators, parents, business and civic leaders, and higher education) contributed to the development of the *Portrait of A Needham Graduate*, the foundation of the district's FY20-FY25 Strategic Framework.

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"The Portrait will provide a framework of equity in education, helping us prepare ALL students for the world they are facing and their future."

<sup>\*</sup> We are thankful to these Facilitators of the 4 workshops who guided the Committee in the development of the Portrait of A Needham Graduate.

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# **EXECUTIVE SUMMARY**

Imagine what the world will be like in 2032. In a March 5, 2018 open letter and invitation to the community, Superintendent Gutekanst reflected on the Class of 2032, the first class to experience Needham Public Schools full-day kindergarten. He announced that the timing was right to engage the community in a conversation about preparing all students for their future.

What kind of educational experiences do we want for our students at all grade levels as we propel them towards graduation, the challenges ahead, and their future lives? We researched, discussed, debated, and articulated the key attributes, skills, and knowledge we want for Needham's young people, now and as far into the future as we can see. We developed a framework—a Portrait of a Needham Graduate—that will inform the district's work going forward, with priorities and strategic objectives around which the community can coalesce and contribute.

To accomplish this work, we brought together a broad-based group of over 50 stakeholders who met for four daylong workshops. Their conversations reflected the many voices, wisdom, and values of this amazing community. The work was invigorating and challenged some of our assumptions about what the educational experience should be in the Needham Public Schools. This group, plus 430 staff across the district, provided input that enabled us to finalize the Portrait and prepare the FY20-FY25 strategic framework for School Committee consideration and approval.

The Portrait of A Needham Graduate represents a district shift to be more future-focused, student-focused, and with students in the role of drivers of their own learning. The 5-year plan challenges us to address what interferes with learning such as time, schedule, classroom environment, or learning silos. Going forward, we will measure the impact of our actions in terms of student outcomes, for ALL students, because the Portrait is a framework for equity in the Needham Public Schools.

# PORTRAIT-RELATED RESEARCH AND WORKSHOPS

In order to develop the Portrait of a Needham Graduate, we grounded the work in research and data on future trends in education and changes/challenges in society that we must prepare our children to address. Of the more than 200 people expressing interest in the Portrait planning process, 53 were invited to participate in four daylong workshops. They represented their stakeholder groups: students, educators, parents, business and civic leaders, and higher education. The presentations, articles, and videos previewed by this Portrait Committee are available to the entire community at this link: https://goo.gl/KsfeJk



To further the Portrait Committee's learning, we partnered with EdLeader21 for guidance on the Portrait planning process. Guest speakers presented critical information at our various workshops. Among the distinguished guests were: Professor Christopher Dede, Harvard University's Graduate School of Education; Beth Grous, Chief People Officer at Trip Advisor; Richard Miller, President of Olin College; James McQuivey, VP at Forrester Research; and Timothy Dasey, Group Leader and Inventor from MIT Lincoln Laboratory. The perspectives of local leaders from business and higher education influenced our understanding of how to prepare students for jobs and life-long learning.

# Among the many important findings:

- Our children face a future of multiple careers, not just jobs. The real issue is not which path to take, but which to take first as a foundation for the others.
- A central challenge for educators is creating intellectual, emotional, and social supports
  that empower students for the difficult task of unlearning old ways, while simultaneously
  learning new ones.
- Future career options and economic opportunities will involve increasing levels of entrepreneurship; technology-driven solutions, including digital automation and Artificial Intelligence, and data management; and innovative technology tools, marketplaces, and economic development.
- Environmental and security issues, including the impact of climate change, availability of increasingly limited resources, cyber-warfare, and unstable alliances, will proliferate.
- Increased civic engagement, including the need for diplomacy, language acquisition, religious and cultural understanding will be required.
- Medical advancements and biotech will result in longer, healthier lives; science and space exploration will flourish; personal innovation, ingenuity, and creativity will be rewarded; social media and new technologies to communicate, solve problems, and build community will guide and strengthen a new generation.

Additional Portrait-related research findings can be found in the video available at <a href="https://www.youtube.com/watch?v=46f0]gIncPg&feature=youtu.be">https://www.youtube.com/watch?v=46f0]gIncPg&feature=youtu.be</a>

Although the conventional wisdom about 21st century skills holds that students must master STEM subjects – science, technology, engineering, math – because that's where the jobs are, according to our research, the top characteristics of success are soft skills, like communicating and listening well, having empathy toward and being supportive of one's colleagues, being a good critical thinker and problem solver. STEAM skills – in Needham we also include an "A" for the Arts – are vital to the world we live in today, but these skills alone are not enough. Broad learning skills are what some large companies seek when they hire new employees and what some higher education institutions care more about than grades or results on standardized tests. Furthermore, in a fast-changing workplace, the ability to acquire new knowledge and skills is critically needed. At the very least, learning how to learn just may be one of the puzzle pieces for navigating an uncertain future.

Using multi-pronged approaches, the Portrait Committee communicated with as many stakeholders as possible. Field trips were arranged so community members could visit schools to observe current programs and practices. Staff attended the 2018 Model Schools Conference and the EdLeader21 Conference. Community forums were held and presentations were made at various organizations' meetings including the Rotary Club, Needham Education Foundation, PTCs, Needham Select Board, among others. In addition, the Needham Education Association was involved, and faculty meetings were held at each school. The intent was for members of the Portrait Committee to be ambassadors for this effort by presenting information about our students' future, and soliciting feedback that shaped our vision.

# **OUR VISION: PORTRAIT OF A NEEDHAM GRADUATE**



Pictured left is the final version of *Portrait of A Needham Graduate* presented for School Committee consideration on April 23, 2019.

After synthesizing the research findings and feedback from the community and staff, we generated a list of competencies that we believe all our students will need for their future. This vision is an exciting shift in our district. We are building back from *their* future rather than forward from *our* past. When we do this, we are bringing into focus how dramatically rapid advancements are changing the workplace and society. At the same time, we are acknowledging that what our students will need to know and be able to do will, in many ways, be different from what we needed when we were in school.

We believe that even though their future is uncertain, our students will be prepared. We envision them as Creative Thinkers and Problem Solvers, Communicators and Collaborators, Socially and Culturally Responsive Contributors, Responsible and Resilient Individuals, and Empowered Learners. More specifically, our students will be able to demonstrate the competencies depicted in our Portrait graphic on page 3 and itemized below.

# Creative Thinkers and Problem Solvers

Raise questions driven by curiosity; Analyze relevant information; Express creativity; Design and innovate solutions

### Communicators and Collaborators

Listen effectively; Articulate ideas using a variety of communication strategies and skills; Interact with others respectfully and productively; Contribute to teamwork

# Socially and Culturally Responsive Contributors

Understand and respect diversity; Act with empathy and courage to ensure equity, access, and an anti-racist culture; Address local & global issues through civic and community engagement

## Responsible and Resilient Individuals

Take responsibility for actions; Make healthy choices to achieve physical & emotional well-being; Self advocate; Persist to overcome personal challenges; Adapt to change

#### Empowered Learners

Discover and integrate content from multiple disciplines; Engage in self-directed learning;
Use technology to support learning and navigate a digital world

Our students' collective and individual success depends on developing these competencies in preparation for the future world that awaits them. We must be deliberate about teaching these competencies and embedding them into curricula and practices. Therefore, in support of the shared vision for our students' future, the work ahead will cover every aspect of what we do in the Needham Public Schools, including instruction, assessment, school structures, and staffing – all guided by the Portrait's strategic framework.

# STRATEGIC FRAMEWORK

To bridge the gap between where we are today and where we want to be to prepare our students for their future, we developed a strategic framework for equity in education. The framework focuses on ALL our students and the impact of our actions on them.

The process of generating the framework was initiated by the 53-member Portrait Committee in the form of a first draft of some big, bold steps and a game plan for implementing the Portrait. The committee's foundational work was combined with input from 430 faculty and staff representing all of our schools. The staff contributed their ideas by answering these questions:

- What are we currently doing that supports all students in developing Portrait competencies? (Valuing the Present)
- What are we doing that interferes with or distracts from our Portrait? (Abandoning the Past)
- What new programs or practices would help all students develop Portrait competencies crucial to their future? (Envisioning the Future)

Based on a classic strategy tool for managing organizational change along three time horizons, this process provided the data for a needs assessment, and the synthesis of the data (past, present, future) informed decision-making on our District Priorities and Strategic Objectives for a 5-year plan.

Before the Strategic Framework was presented to School Committee for consideration, we tested potential priorities and strategies by surveying the staff. For the proposed priorities, 85% to 98% of the 218 respondents identified them as "very important" or "a top priority." This feedback led us to the following four priorities that we believe are equally important, each with a focus on ALL our students, and each with key strategies for realizing our vision.

# **Priority 1: ALL STUDENTS ARE DRIVERS OF THEIR OWN LEARNING**

Research has demonstrated that engaging students in the learning process increases their attention and focus, motivates them to practice higher-level critical thinking skills and promotes meaningful learning experiences. Educators who adopt a student-centered approach to instruction increase opportunities for student engagement, which then helps students to achieve their own learning objectives. In terms of teaching practices, a shift is needed from teacher transmission of information to student application of knowledge through their own real-world experiences.

The following strategic objectives are recommended to support all students in becoming drivers of their own learning:

Incorporate opportunities for student choice, independent learning, and personalized pathways.

Provide structures and experiences that enable student efficacy, leadership, and voice.

Teach students the content and skills necessary for them to grow personally and academically.

# Priority 2: ALL STUDENTS EXPERIENCE INTEGRATIVE TEACHING & LEARNING

In many educational systems, there are learning silos for academic subjects, departments, Special Education, etc. This priority is about Needham Public Schools serving or intending to unify separate things for the purpose of carrying out best practices in teaching and learning.

Our intent is to enable students to make connections between ideas and concepts across different disciplines and apply the knowledge gained. At the same time, we intend to address students' individual differences and provide each student with access to the resources they need. We will take into account social and emotional components that either facilitate or impede learning, and consider alternative ways for students to acquire and demonstrate knowledge and skills. We believe transferable skills, like communication and collaboration, will result in learning experiences that stay with the student for a lifetime.

The following strategic objectives are recommended to support all students in experiencing integrative teaching and learning:

Extend interdisciplinary teaching and learning practices Pre-K to 12.

Embed Portrait Competencies, Technology, Inclusive Practices, SEL, and Equity into all curricula and instructional practices.

Provide opportunities for students to demonstrate knowledge and skills through multiple means of expression.

# Priority 3: ALL STUDENTS LEARN & GROW WITHIN ADAPTABLE ENVIRONMENTS

We recognize that learning takes place within the classroom, and within and outside the school building. Learning continues in the community and with families. That is why it's important to extend our work by enhancing learning environments. Staff suggested more flexible/innovative spaces, schedules, and structures; thoughtful homework practices; opportunities for travel and internships; family/community engagement; and other fresh ideas.

The following strategic objectives are recommended to support all students to learn and grow within adaptable environments:

Support and design classroom models and environments that foster collaboration and innovation.

Provide time, schedules, and spaces that promote learning objectives.

Complement instruction with accessible learning beyond the classroom, within the community, and in partnership with families.

# **Priority 4: INFRASTRUCTURE SUPPORTS NEEDS OF ALL STUDENTS**

Underpinning the Portrait framework is an infrastructure critical to carrying out our 5-year plan. This priority focuses on the investments needed, the capacity building, development of systems, and the ongoing training and professional learning of Needham Public Schools staff.

The following strategic objectives are recommended to provide the infrastructure that supports the needs of all students:

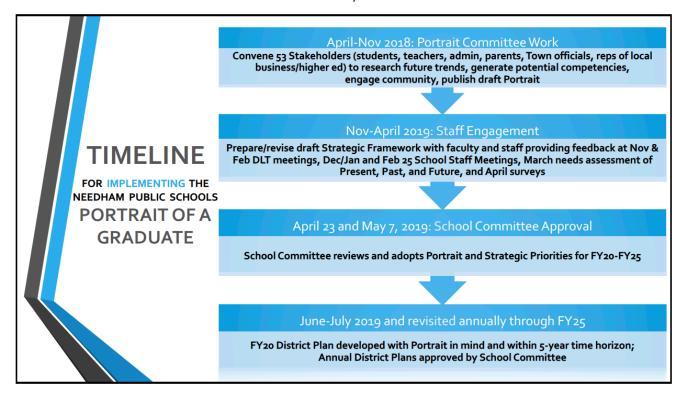
Provide staffing, facilities, and budget resources aligned to district priorities.

Implement a recruitment, retention, and development process for staff growth and diversity.

Establish a professional learning structure supporting equity and the Portrait vision.

# PORTRAIT TIMELINE AND NEXT STEPS

We are proud to share with the community this comprehensive Portrait planning process that resulted in 4 priorities with strategic objectives. As shown below, we dedicated a year to completing the research, involving a wide cross-section of stakeholders, and generating data to inform our thinking and decision-making. The work ahead is to develop action steps that will make this vision a reality. Each year for the next 5 years, with the Portrait in mind, we will present an Annual District Plan and follow through on aligning multiple models/plans being used district wide that will prepare ALL our students for their future. The School Committee will review the District Action Plan for FY20 on June 18, 2019.



# **SUMMARY**



# PORTRAIT OF A NEEDHAM GRADUATE

Shared vision of the future for our Pre-K to 12 students

# **VISION**

Preparing All Needham Public School students to be:
Creative Thinkers and Problem Solvers;
Communicators and Collaborators;
Socially and Culturally Responsive Contributors;
Responsible and Resilient Individuals; and
Empowered Learners.

# **DISTRICT PRIORITIES AND STRATEGIC OBJECTIVES FY20-FY25**

- 1. All Students Are Drivers of Their Own Learning
  - Incorporate opportunities for student choice, independent learning, & personalized pathways
  - o Provide structures and experiences that enable student efficacy, leadership, and voice
  - Teach students the content & skills necessary for them to grow personally and academically
- 2. All Students Experience Integrative Teaching and Learning
  - Extend interdisciplinary teaching and learning practices Pre-K to 12
  - Embed Portrait Competencies, Technology, Inclusive Practices, SEL, and Equity into all curricula and instructional practices
  - Provide opportunities for students to demonstrate knowledge and skills through multiple means of expression
- 3. All Students Learn and Grow Within Adaptable Environments
  - Support and design classroom models and environments that foster collaboration and innovation
  - o Provide time, schedules, and spaces that promote learning objectives
  - Complement instruction with accessible learning beyond the classroom, within the community, and in partnership with families
- 4. Infrastructure Supports Needs of All Students
  - Provide staffing, facilities, and budget resources aligned to district priorities
  - o Implement a recruitment, retention, and development process for staff growth and diversity
  - o Establish a professional learning structure supporting equity and the Portrait vision

# REFERENCES

The following references are a partial list of the sources of information reviewed by members of the Portrait Committee in preparation for drafting the strategic framework.

Andersen, E. (2016, March). Learning to Learn. Harvard Business Review: 98-101.

Ang. Y., (2018, April 8), O&A with Sir Ken Robinson, The New York Times New York edition: F11.

Bell, B. (2018, September 7). To raise independent kids, treat middle school like a dress rehearsal for life. Retrieved from https://www.washingtonpost.com/news/parenting/wp/2018/08/31/to-raise-independent-kids-treat-middle-school-like-a-dress-rehearsal-for-life/?utm\_term=.75cbc420eee3

Crowley, B., & Saide, B. (2016, January 20). Building Empathy in Classrooms and Schools. Retrieved from https://www.edweek.org/tm/articles/2016/01/20/building-empathy-in-classrooms-and-schools.html?print=1

Davidson, C. (2017, December 20). The surprising thing Google learned about its employees. Retrieved from https://www.washingtonpost.com/news/answer-sheet/wp/2017/12/20/the-surprising-thing-google-learned-about-its-employees-and-what-it-means-for-todays-students/?noredirect=on&utm\_term=.840f7090d45c

Dintersmith, T. (2018, March). Essential Skills [Video file]. Retrieved from www.youtube.com/watch?v=f\_QJQz-8Y2Y

Dintersmith, T. (2018, March). The Future of Work: Will Our Children Be Prepared [Video file]. Retrieved from https://www.facebook.com/dintersmith/videos/vb.2040176982896557/2040707042843551/?type=2&theater

Eyler, J. (2009, Fall). The Power of Experiential Education. Liberal Education 95(4): 24-31.

Herold, B. (2017, September 27). Facing an Uncertain Future. Education Week 37(6): 3-6.

Hough, L. (2015, January 8). What's Worth Learning in School? Harvard Ed. Magazine, Winter: 36-41.

Isaacson, W. (2017). Learning from Leonardo. Leonardo da Vinci. (pp. 18-27). New York, NY: Simon and Schuster

ISTE Standards for Students (2016). Retrieved from https://www.iste.org/standards/for-students

Jacobs, H. H. (1989). The Growing Need for Interdisciplinary Curriculum Content. Retrieved from http://www.ascd.org/publications/books/61189156/chapters/The-Growing-Need-for-Interdisciplinary-Curriculum-Content.aspx

Jacobson, A. (2018, June 6). Why we shouldn't push students to specialize in STEM too early. Retrieved from https://engineering.cmu.edu/news-events/magazine/spring-2018/why-we-shouldnt-push-studens-to-specialize-in-stem-too-early.html

Kay, K., & Greenhill, V. (2013). *The Leader's Guide to 21<sup>st</sup> Century Education: 7 Steps for Schools and District.* Upper Saddle River, NJ: Pearson Education, Inc.

Lundgren, C., & Lundy-Ponce, G. (2019). Meaningful Multicultural Education in a Nation of Immigrants. Retrieved from http://www.colorincolorado.org/article/culturally-responsive-instruction-holiday-and-religious-celebrations

Maier, M. H., McGoldrick, K., Simkins, S. P. (2009). Why Teach with an Interdisciplinary Approach? Retrieved from https://serc.carleton.edu/48978.1921

Marx, G. (2014, April). A Guide to 21 Trends for the 21<sup>st</sup> Century: Out of the Trenches and into the Future (First ed.). Bethesda, MD: Education Week Press.

Mortenson, D. (2015, July 23). A Look Inside the Classroom of the Future. Retrieved from https://www.edutopia.org/blog/look-inside-classroom-of-future-dana-mortenson

Pearce, S. (2016, April). Authentic learning: what, why, and how? Retrieved from http://www.acel.org.au/acel/ACEL\_docs/Publications/e-Teaching/2016/eTeaching\_2016\_10.pdf

Perkins, D. (2016, March). Lifeworthy Learning. Educational Leadership 73(6): 12-17.

Reilly, N. N. (2018, January). The Bonds of Social-Emotional Learning. Educational Leadership 75(4): 56-60.

Reilly, K. (2018, August 3). When schools get creative. Time-The Science of Creativity Special Edition: 82-87

Richardson, W. (2017, January). Getting Schools Ready for the World. Educational Leadership 74(4): 24-29.

Safir, S. (2016, January 21). Equity vs. Equality: 6 Steps Toward Equity. Retrieved from https://www.edutopia.org/blog/equity-vs-equality-shane-safir

Sawchuck, S. (2018, May 22). Is STEM Oversold as a Path to Better Jobs? Education Week 37(32): 16-19.

Tichnor-Wagner, A. (2017, November). Inspiring "Glocal" Citizens. Educational Leadership 75(3): 69-73.

Westheimer, J. (2017, November). What kind of Citizens Do We Need? Educational Leadership 75(3): 12-18.