

# Milton Public Schools Advancement Budget FY 2013-2014

School Committee Presentation  
December 5, 2012

# Vision of Milton Public Schools

*The Vision of the Milton Public School system is to build and strengthen a dynamic community that challenges all students to thrive and achieve.*

*In order to create the educational system that supports this vision for all students and advances the Milton Public Schools, the following Advancement Budget initiatives are among the priorities of the FY14 Milton Public Schools budget.*

# Advancement Budget Initiatives

1. Emphasizing Early Literacy Achievement (K-3)
2. Closing the Proficiency Gaps (K-12)
3. Advancing Science and (STEM) Science, Technology, Engineering & Math Initiatives (K-12)

# Initiative 1: Emphasizing Early Literacy Achievement

## A. Research that supports the initiative:

*Dr. Nonie K. Lesaux in Turning the Page: Refocusing Massachusetts for Reading Success (2010) outlines five target areas that must be addressed to produce measureable success in reading:*

1. Program Design and Impact
2. Assessments of Student Outcomes
3. Professional Development
4. Curriculum
5. Partnerships with Families

# Initiative 1: Emphasizing Early Literacy Achievement

## A. Research (Cont.):

**“...Reading is the cornerstone of academic success. There is a limited window of time in which to prevent reading difficulties and promote reading achievement; for most children what happens (or doesn't happen) from infancy through age 9 is critical.**

**By third grade, reading struggles are strongly linked to later school difficulties, as well as behavioral problems, depressions and dysfunctional and/or negative peer relationships.**

**What's more, research indicates that 74 percent of children whose reading skills are less than sufficient by third grade have a drastically reduced likelihood of graduating from high school.**

**As a result, these children are unlikely to develop the skills essential for participating fully in this knowledge-based economy and for experiencing life success.” (Lesaux, p.2)**

# Initiative 1: Emphasizing Early Literacy Achievement

## A. Research (Cont.)

**“Impact studies have been utilized to examine various relationships between school libraries and student achievement, including demographic data, technology, budgeting, staffing, professional development, and collaboration. These studies, collectively known as the **“School Library Impact Studies”** include research dating back to 1993 from 22 states and one Canadian province (Kachel, 2011). These studies concluded that school libraries have a **positive impact on student outcomes, as they teach 21<sup>st</sup> century skills, promote achievement, and play a major role in closing the achievement gap.**” (Impact of School Libraries on Student Achievement: N. Y. Comprehensive Center, 2011)**

# **Initiative 1: Emphasizing Early Literacy Achievement**

## **B. Identified Need:**

29% of Milton Public Schools current fourth graders scored below Proficient on their Grade 3 spring 2012 English/Language Arts MCAS.

# Initiative 1: Emphasizing Early Literacy Achievement

## C. Resources Required:

### 1. Program Design and Impact:

- \$124,000\* – Hire 2 certified literacy specialists/coaches to provide targeted reading and writing instruction to K-3 students identified at risk and to support teachers through co-teaching demonstration lessons and consultation.
- \$58,000 – Hire 1 Elementary Librarian/Media Specialist – Additional librarian will share the responsibilities and support teachers in the implementation of an enhanced literacy program. The position will also increase student access to existing school library book collections.

### 2. Assessments of Student Outcomes:

\$20,000 – Purchase a formative reading assessment program to measure progress in each of the sub-skills of reading to inform classroom instruction and to monitor progress towards proficiency.

\* Salary adjusted for experience and education required for position



# Initiative 1: Emphasizing Early Literacy Achievement

## C. Resources Required (Cont.)

### 3. Professional Development:

\$10,000 – Provide targeted professional development to train teachers and support staff in the use of assessment tools, data analysis, and instructional planning to improve student achievement.

### 4. Curriculum:

\$30,000 – Purchase language-rich, rigorous and engaging reading curriculum (K-3) to ensure that every student is proficient by the end of grade 3 in the areas of phonics, phonemic awareness, comprehension, spelling and writing.

### 5. Partnerships with Families:

School-based goals that will target workshops for parents around engaging their children in literacy at home (at no additional cost to the district).

# **Initiative 1: Emphasizing Early Literacy Achievement**

## **D. Metrics to Measure Progress and Success:**

1. Grade K-3 Formative Classroom Reading Assessments
2. Grade 3 Spring 2014 MCAS Results

## **E. Anticipated Outcomes:**

Milton Public Schools third graders will meet the DESE spring 2014 MCAS Cumulative Proficiency Index (CPI ) target of 92.9.

# Initiative 2: Closing the Proficiency Gaps

## A. Research:

A Roadmap to Closing the Proficiency Gap submitted by the DESE's Proficiency Gap Task Force in April of 2010 states that "experience tells us that there are **consistent contributing factors that combine to produce underperformance.**" (p. 16)

Milton's Advancement Budget addresses four of these factors:

1. **Lagging early literacy.** "...lagging reading skills in the early grades. If unaddressed, these deficiencies generate a disadvantage from which many never recover." (p.17)
2. **Not enough time in school.** "Children in challenging circumstances may simply need more time in school to achieve proficiency." (p.17)
3. **Lack of effective analysis of data.** (p.16)
4. **Differences in educator effectiveness.** (p.17)

# **Initiative 2: Closing the Proficiency Gaps**

## **B. Identified Needs:**

Spring 2012 MCAS Results identified two Proficiency Gap challenges:

### **District's Cumulative Progress & Performance Index**

African American/Black Student Group – PPI =70 (only district-wide Student Group that did not make the target established by the DESE).

### **Pierce Middle School's Cumulative Progress & Performance Index**

Low Income Student Group – PPI=74 (only Student Group at Pierce Middle School did not make the target established by DESE).

# Initiative 2: Closing the Proficiency Gaps

## C. Resources Required:

### 1. Assessment Program:

\$30,000- ANet Assessment Software

### 2. Contracted Services:

\$40,000 - Provide targeted instruction, curriculum, and assessments by certified teachers for extended time on learning (before/after school, Saturdays, and during the summer) to all students in the district who are at risk of not reaching Proficiency on MCAS.

-Current services are minimal, school specific, and not required

### 3. Instructional Texts/Materials:

\$5,000- Instructional materials to support extended time on learning.

### 4. Professional Development:

\$10,000- Training for all staff on Closing the Proficiency Gaps and selected staff on the implementation of ANet Assessment Software.

# Initiative 2: Closing the Proficiency Gaps

## D. Metrics to Measure Progress and Success:

1. District-wide formative assessments used in all English and Math MPS classrooms.
2. Individual Student Action Plans – quarterly review of effectiveness of intervention strategies.
3. ANet Assessment Program used in Extended Time on Learning Programs.
4. Spring 2014 MCAS Results

## E. Anticipated Outcomes:

1. District's African American/Black Student Group and Pierce Middle School's Low Income Student Group will achieve DESE Cumulative Progress and Performance Index (PPI) targets on Spring of 2014 MCAS.
2. Individual students who participate in the programs will achieve a Student Growth Percentile of 50 or higher.

# Initiative 3: Advancing Science/STEM

## A. Research:

The 2011 Analysis and Insights from the Bayer Facts of Science Education Survey is a summary of 15 years of STEM research.

### Highlights:

- **Science Literacy is critical for all Americans** young and old, scientist or non-scientist. (p. 1)
- **Improving science education for all students**- especially girls and underrepresented minorities - should be a national priority and **begin at the earliest possible elementary level** since that's where the STEM workforce truly begins. (p. 1)
- For those that go on to become professionals, **interest in science begins early**- before age 11. (p. 10)

# Initiative 3: Advancing Science/STEM

## B. Identified Needs:

1. At grade five 37% of the students scored Warning or Needs Improvement.
2. At grade eight 52% of students scored Warning or Needs Improvement.
3. At the high school 18% of students scored Warning or Needs Improvement in Biology.



# Initiative 3: Advancing Science/STEM

## C. Resources Required:

### 1. Curriculum Administrator:

\$98,000- Hire 1 additional Curriculum Administrator whose primary role will be to deliver, support and evaluate Science and STEM kindergarten through fifth grade (currently 1 Science Administrator services teachers in grades K-12 ).

# Initiative 3: Advancing Science/STEM

## C. Resources Required (continued)

### 2. Curriculum:

- \$20,000- Purchase texts, equipment and additional LEGO WeDo kits for the expansion of the STEM program through 2<sup>nd</sup> grade (hands-on Science materials).
- \$56,000- Purchase science modules in Earth History, Human Body Systems, Waves and Electromagnetism at the Middle School Level. Modules include hands-on materials as well as texts, assessment and software support.
  - 24 units needed for a full program at the middle school
  - 14 kits needed to complete the full program at \$4,000 per kit
- \$14,000- Professional development through partnerships with local universities:
  - Tufts University – LEGO WeDo
  - Bridgewater State University – STEM Support
  - University of Massachusetts – Grade 5 Oceanography

# Initiative 3: Advancing Science/STEM

## D. Metrics to Measure Progress and Success:

1. District-wide grade level assessments of students' mastery at the end of each science unit and of Grade 1 and 2 LEGO WeDo program.
2. Spring of 2014 Science MCAS

## E. Anticipated Outcomes:

The district will meet the DESE 5<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> grade CPI Science targets on Spring 2014 MCAS.

- Gr. 5 2014 CPI = 88.3
- Gr. 8 2014 CPI = 81.8
- Gr. 10 2014 CPI = 78

# Resources Required

<b>ADVANCEMENT BUDGET</b>	<b>Staff</b>	<b>Technology</b>	<b>Instructional Texts and Materials</b>	<b>Extended Time on Learning Salaries and Professional Development (PD)</b>
Early Literacy	\$124,000 – Two Literacy/Specialists/Coaches \$58,000 – Librarian/Media Specialist		\$20,000 – Formative Reading Assessment Program \$30,000 Reading Curriculum	\$10,000 – PD for teachers on Assessment Program
Closing the Proficiency Gaps		\$30,000 ANet – Assessment Software	\$5,000 for Extended Day Materials	\$40,000 – Contractual instructional salaries for Extended Time Learning \$10,000 – PD on Strategies for Closing the Proficiency Gap
Science/ STEM	\$98,000 – STEM Curriculum Administrator		\$20,000- Grade 2 LEGO WeDo \$56,000 - Middle School Hands-on materials	\$14,000 – Professional Development
<b>Total Advancement</b>	<b>4 FTEs</b>			<b>\$515,000</b>

## Final

This presentation helps to summarize what we see as the most pressing  
Advancement Initiatives to the district  
Need to sustain success we have had  
Commitment of time, staff and resources

We won't be able to sustain that success unless we remain focused...