LEXINGTON SCHOOL COMMITTEE MEETING Tuesday, June 8, 2010 Lexington Town Office Building, Selectmen's Meeting Room 1625 Massachusetts Avenue

· 7:30 p.m. <u>Election of Officers</u>:

The first order of business is the election of officers for the School Committee.

7:40 p.m. <u>Call to Order and Welcome</u>: Public Comment – (Written comments to be presented to the School Committee; oral presentations not to exceed three minutes.)

7:50 p.m. Superintendent's Announcements:

8:00 p.m. Members' Reports / Members' Concerns:

8:10 p.m. Discussion:

- 1. Recommendations Report of the Best Practices for School, Family, and Community Engagement Subcommittee (15 minutes)
- 2. Final Report of the Mathematics Curriculum Review Committee (20 minutes)
- 3. Update: Year 3 Science Curriculum Review (45 minutes)
- 4. Superintendent's Report on 2009-2010 System Goals (15 minutes)
- 5. Training for Newly Appointed Administrators (5 minutes)

9:50 p.m. Action Items:

- 1. Vote to Approve Estabrook PTA Request to Purchase Tables and a Bench for the Estabrook Playground (5 minutes)
 - 2. Vote to Approve Changes to the Performing Arts Revolving Fund (5 minutes)

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- 3. Vote to Approve 2011-2012 School Calendar (15 minutes)
- 4. Vote to Approve New Rates for Facility Rentals (5 minutes)

10:20 p.m. Executive Session:

The next meeting of the School Committee is to be determined.





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In Recognition and Appreciation

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Contraction of the

- All Principals
- All K-5 Classroom Teachers
- All Secondary Mathematics Teachers
- Special thanks to the leadership
 Karen Tripoli, K-5
- Josh Frost, 6-8, Clarke MS
- Kent Findell, 6-8 Diamond MS
- Gary Simon, 9-12

Curriculum Reviews . . . should never be "over" On-going review and analysis of the data <u>Convergence</u> of PLC work - Data collection & analysis (looking at student work) - Identification of Priority Standards/Essential Ideas - Creation of formative & summative assessments <u>Convergence</u> of Equity & Excellence Action Plan

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"The Mission"

The goal of the Lexington Public Schools mathematics program is to offer to all students a rich and engaging mathematics curriculum that focuses on important and essential mathematics, learned with understanding and depth. The program's aim is to enable every student to achieve full potential as a mathematics learner, based on a conviction that everyone can succeed when challenged by high expectations and offered strong support. The program takes a balanced approach to developing proficient skills, conceptual understanding, and mathematical habits of mind. Students are given opportunities to explore and discover mathematical ideas, to build their mathematical knowledge, and to cultivate their thinking, creativity, reasoning, and problem solving capabilities. Teachers seek to create learning experiences that are developmentally appropriate; to address varied learning styles, and use a variety of mathematical approaches and representations. Students are encouraged to communicate their mathematical ideas, to become confident and perseverant in using mathematics, and to appreciate the power, relevance, and beauty of mathematics.



The CHALLENGE

Mathematics Instruction <u>cannot</u> be effective if it is based on either extreme . . .

Content or Process

"Students become more proficient when they understand the underlying concepts of much <u>and</u> they understand the underlying concepts more easily if they are skilled at computational procedures."



"Students entering Kindergarten in 2010 will graduate from HS in 2023. Educators can only guess at the problems those graduates will face and the corresponding mathematical competencies they will need. Still, <u>educators must define and</u> <u>implement a K-12 Mathematics</u> <u>curriculum that will prepare students</u> for the uncertain demands of 2023."

What Mathematics should then be taught?

Lexington's goal: to strive continuously to find the balance that will assist students in mastering the standards <u>AND</u> in creating those mathematical "habits of mind" that will allow them to think, apply, and discover the mathematics they need to know in real-life applications.



What is a "Habits of Mind" Curriculum?

- Gives students the tools they need to use and understand what they have learned and not yet learned.
- Lets students "in" on the process of creating, inventing, conjecturing, and experimenting.

District-wide ... our sustained focus

- · Upload all completed K-12 documents onto Atlas Rubicon
- Continue district-wide Professional Development efforts to increase both content and instructional capacity for ALL teachers in ALL disciplines
- Continue targeted PLC work, collaborative efforts with special education, ELL, and the disenfranchised
- Continue to work on the development of a tiered intervention model (RTI)
- Provide regular opportunities for K-12 department members to converse, share, and visit each others' classes and schools (Collaboration is essential)

Accomplishments. . . <u>Elementary, K-5</u> - Curriculum Document completed K-5 - Purchase & Implementation of ancillary materials for targeted instruction & differentiation - End-of-Year summative assessments at each grade level - Differentiated Guides distributed to each grade level teacher to enhance and extend instruction - Training in Assessing Math Concepts (AMC) for K-2 and special education teachers

- M.E.L.P.

- Mathpath - EDCO initiative - Summer 2010 1/2 June

K-5 Accomplishments. . continued Grade 3 implementation of FASTT math software to increase automaticity and recall of basic facts Grade 5 "pilot" implementation of Fraction Nation RTI study group for mathematics New teacher summer workshops Approval of 1.0 FTE for K-5 Mathematics specialist/coach - monthematics Participation in the development of a standards-based report card Continued publication of communication document: "Math Matters" + monthematics Mathematics Mat



6-8 Accomplishments. . continued

Creation of common and formative assessments

- Joint meeting of 5th grade faculty with both middle school principals
- Implementation of "Fraction Nation" as a, pilot in the Math Intervention class at Clarke

On-going professional development: review and discussion of current literature (See attached article)

Middle School Math Highlights

- Tremendous opportunities for students to engage in math-related activities outside the classroom
- More than 100 students at <u>each</u> school are eager to participate and "try out" for these events
- Numerous awards and 1st place finishes by both schools in 19 different annual competitions
- The 1st Annual Lexington Mathematics Tournament (LMT) sponsored by the LHS students to "give back" to their middle school math experience

Accomplishments . . . LHS, 9-12

- Creation of CORE curriculum for each course and level of instruction
- Development of Summative Assessments for each course based on "agreed to" priority standards – PLC work
- Collaborative review of these results at the beginning of the new academic year to further refine the work
- Purchase of new textbooks for the Level 1 pre-calculus and calculus courses in FY11
- Performance records of 9th grade students shared with previous year's 8th grade teachers
- On-going examination of course standards

Research & Literature

Research & Literature should consistently and continuously remain the "backdrop" for any programmatic decisions

- Collaboration and networking increases student achievement
- Effort, <u>NOT</u> just inherent talent, counts in achievement
- Children's goals and beliefs about learning are related to their academic performance

Research & Literature . . . continued

- <u>Informative assessment improves</u> student learning; it provides data that informs "next step" instruction.
- Research on the relationship between teachers' mathematical knowledge and students' achievement confirms importance of teachers' content knowledge and instructional capacity











Lexington Public Schools

146 Maple Street � Lexington, Massachusetts 02420

Carol A. Pilarski Assistant Superintendent for Curriculum, Instruction, and Professional Development

(781) 861-2558 email: cpilarski@sch.ci.lexington.ma.us fax: (781) 863-5829

To: Dr. Paul Ash Members of the Lexington School Committee

From: Carol A. Pilarski

Re: <u>Summary:</u> Update/Status Report on the Mathematics Curriculum Review

Date: June 8, 2010

I. Introduction

In June of 2009, I presented an end-of-year report summarizing the work of Years 1, 2, and 3 of the Mathematics Curriculum review process. The Mathematics Curriculum Review Committee had completed the 3rd and 'final' year of its work; however, while last year was "technically" the concluding year of the three-year process and the essence of the committee's work was close to complete, I had reported that some projects and details remained outstanding and were scheduled to be addressed during the summer months of 2009 and in the fall semester of the 2009-2010 academic year.

Those projects did, in fact, occur over the course of the past year and decisions were made around certain curricular matters that had remained unresolved at that time. The purpose of this report is to update you on the current status. Several summer workshops were scheduled in July and August with additional meeting times set aside in the fall to finalize curriculum documents and some decisions regarding the district's Mathematics program. I will elaborate further on the details of these workshops and subsequent meetings in the ensuing sections of this report.

It is important to note that while the central goal of any curriculum review is to complete the majority of the identified objectives over the course of the three-year cycle dedicated to this effort, *Curriculum, Instruction, and Assessment* should represent a continuous cycle of on-going and ever-evolving scrutiny. To this end, and most significantly, the curriculum review process has served to enhance the efforts of the district in formulating and furthering the work of <u>Professional Learning Communities</u> (PLCs). It has served to bring every school and teacher together to look at the inherent value of collaboration, informative assessment, and data driven decision-making in looking at student performance in meeting the standards. In addition to the PLC initiative, the creation of the <u>Achievement Gap Task Force</u> and the resultant *Action Plan for Equity and Excellence* has emphatically raised the focus on instructional interventions designed to appropriately and effectively advance the performance levels of students of color, of English Language Learners, and struggling students. These district-wide efforts coupled with each curriculum review process have served to augment our mutually beneficial goals and outcomes and have demonstrated the importance of collaboration and acknowledged interdependence.

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II. Philosophical Framework

Before discussing the details of this past year's work, I feel compelled to re-state the guiding principles represented in the Mission Statement that was developed in Year 1. The principles contained in this mission consistently provide the backdrop and cornerstone for the district's Mathematics program:

The goal of the Lexington Public Schools mathematics program is to offer to all students a rich and engaging mathematics curriculum that focuses on important and essential mathematics, learned with understanding and depth. The program's aim is to <u>enable</u> <u>every student to achieve full potential as a mathematics learner</u>, based on a conviction that <u>everyone can succeed</u> when challenged by high expectations and offered strong support. The program takes a balanced approach to developing proficient skills, conceptual understanding, and <u>mathematical habits of mind</u>. Students are given opportunities to explore and discover mathematical ideas, to build their mathematical knowledge, and to cultivate their thinking, creativity, reasoning, and problem solving capabilities. Teachers seek to create learning experiences that are developmentally appropriate; to address varied learning styles, and use a variety of mathematical approaches and representations. Students are encouraged to communicate their mathematical ideas, to become confident and perseverant in using mathematics, and to appreciate the power, relevance, and beauty of mathematics.

Our collective commitment to these convictions is pivotal to the success of our Mathematics program as we strive to assure <u>mathematical success</u> and <u>engagement</u> for ALL students.

III. The On-Going Challenge:

The focus of our continued work rests in finding the balance and sometimes the necessary imbalance in offering a program that successfully combines both Content Standards (skills/benchmarks) AND Process Standards that emphasize thinking, questioning, experimenting, inventing, and visualizing. Mathematics instruction cannot be effective if it is based on either extreme . . . content or process. "Students become more proficient when they understand the underlying concepts of math and they understand the concepts more easily if they are skilled at computational procedures" (National Research Council – 2002 – *Helping Children Learn Mathematics*). I thought it would be important to give you a "taste" of our many discussions, by asking that you ponder an excerpt from an NSF (National Science Foundation) paper goldenberg, and June Mark (*http://main.edc.org*). It is exactly this kind of thinking that our mathematics teachers pay a great deal of attention to while grappling with decisions around the kind of mathematics program we need to offer Lexington's students.

Students entering Kindergarten in 2010 will graduate from high school in 2023. Educators can only guess at the problems that those graduates will face and the corresponding mathematical competencies that they will need. Still, educators must define and implement a K-12 mathematics curriculum in 2010 that will prepare students for the uncertain demands of 2023.

Mathematics curriculum standards documents – whether prepared by states, districts, or the publishers of instructional materials – often focus upon, or are limited to, consideration of what students are to learn. Some are grade specific; others are course specific. Some go so far as to address expectations for specific student groups or programs of study. Despite these varied efforts, the resulting (current) K-12 curriculum has been characterized as being "eight years of 11th century arithmetic followed by two years of 16th century algebra and a year of 3rd Century BCE geometry." At the

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secondary school level, students perceive it as a smorgasbord of facts and procedures to be acquired one-by-one, applied to "types" of problems, and demonstrated successfully on a variety of tests (end-of-unit, end-of-course, statewide proficiency, scholarship, and college entrance/placement). Upon graduation, those students often find that they don't have access to the mathematics that they need.

The fundamental difference in the instructional emphases outlined above is most simply represented by these two questions:

• Should instructional emphasis in mathematics courses be on developing "mathematical apprentices" who are prepared to use specific mathematical formulas and techniques?

OR

Should instructional emphasis in mathematics courses be on developing
 "mathematical practitioners" who are able to select and apply a wide array of mathematical tools in order to solve unfamiliar problems?

What Lexington's Mathematics program is striving to do is to find the appropriate balance that will assist students in creating those mathematical "habits of mind" that will allow them to think, apply, and discover the mathematics they need to know and use in real life applications.

"Organizing the mathematics curriculum around *Habits of Mind* gives students the tools they will need to use, understand, and even 'make' mathematics that doesn't yet exist. Such a curriculum lets students "in" on the process of creating, inventing, conjecturing, and experimenting. It is a curriculum that encourages false starts, calculations, experiments, and special cases. A *Habits of Mind* curriculum is devoted to giving students a genuine research experience and values how a particular piece of mathematics typifies an important research technique as much as it values the importance of the result itself." (*Developing Mathematical Habits of Mind* – Contemporary Curriculum Issues by June Mark, Al Cuoco, E. Paul Goldenberg, and Sarah Sword) (Appendix A)

IV. Mathematics Curriculum Review . . . the on-going process

- Implementation of newly articulated curriculum.
- Collection of data using benchmark outcomes/assessments around the curriculum.
- Sharing and discussion of data based on outcomes.
- Determination of student academic growth using data analysis.
- Based on data analysis results, making projections for any necessary updates and additional supports
- Identification of professional development needs so as to ensure effective implementation of curriculum and accompanying instructional strategies.

District-Wide Update and Sustained Focus:

• Upload all curriculum documents, including all available resources, and assessments onto the newly adopted web-based program, *Atlas Rubicon*. This program is designed to provide a coherent way to represent a district's horizontal and vertical curriculum alignment and promises to be an invaluable tool for us as we move forward in placing all of our curriculum "on-line" for teachers to access. The program also allows teachers to be able to share implementation strategies and activities across grade levels. Certain "privileges" and access to this site will also be made available to parents, once the work of uploading and refining the information is complete. Continuing training is planned for this summer in the use of this program. (A snapshot presentation of this program will be demonstrated at Tuesday evening's LSC meeting.)

- Teachers will collate the results of these summative assessments and compare learning across sections of the same course at the beginning of the next academic year in order to further refine their work.
- New textbooks have been reviewed and selected for purchase for the Level 1 pre-calculus and calculus courses for implementation in the FY11 academic year.
- The performance records at mid-year of 9th grade students are sent to the 8th grade teachers so that they may see how their previous year's students are doing in their recommended mathematics courses. This exchange of information assists teachers in making future recommendations for placement and encourages face-to-face communication between teachers.
- Professional Development:
 - The design of summative assessments for each course at the high school has been guided and highly influenced by the work of nationally renowned assessment experts Larry Ainsworth and Mike Wasta in keeping with the collaborative philosophy of PLCs which focuses teacher attention on student data and the appropriate instructional response to the data. Four full-days of training were provided by these 2 individuals to the high school Leadership Team.

VI. Research and Literature:

It should be noted that the "backdrop" of the district's work in any domain must be and should continue to be informed by research and studies at regional, national and international levels. In other words, the research review never ends. As we continue our local work, we concurrently remain focused on on-going studies that serve to inform our decision-making and thinking. Even where there exist differing points of view, research from multiple studies consistently agree and underscore the importance of the following essential ingredients in an effective mathematics curriculum:

- Increased collaboration and networking among teaching professionals at all levels and researchers (local PLCs) increases student achievement.
- Effort, NOT just inherent talent, counts in mathematical achievement.
- Research on the relationship between teachers' mathematical knowledge and students' achievement confirms the importance of teachers' content knowledge. Consequently, continuous professional development and training for teachers is imperative.
- Teachers' regular use of formative assessment improves their students' learning.
- Children's goals and beliefs about learning are related to their academic performance. When children believe that their efforts to learn make them "smarter," they show greater persistence in mathematics learning. (We need to strive daily in our classrooms to defeat the erroneous idea that success is largely a matter of inherent talent or ability, not effort.)
- Finally, the CONTENT and PROCESS standards evoke the essential elements of a highly effective program that includes: mastery of skills and concepts, mathematical communication and thinking, positive attitudes towards mathematics, and critical views of teaching and learning. In other words, curriculum MUST simultaneously develop conceptual understanding, computational fluency, and problem-solving skills. These capabilities should be taught as mutually supportive, each facilitating the learning of the others. "Teachers should emphasize these interrelations; taken together, conceptual understanding of mathematical operations, fluent execution of procedures and fast access to number combinations jointly support effective and efficient problem solving."

Mathematics Curriculum Review 09-10

VII. Concluding Remarks:

I believe I speak on behalf of the entire group when I say that our review process continues to be an exhilarating experience for all. As part of our many discussions, there was one principle that never wavered and that was the group's commitment to do what was in the best interest of the students and their success and constant growth in field of mathematics. Since, as stated earlier in this report, curriculum is ever-evolving and instructional interventions for the wide range of diverse needs must be continuously assessed to respond to changing needs, the committee has resolved that the district should commit to offering continuing opportunities to maintain these important discussions on a regular basis and never again let a decade pass in between "formal" review cycles. The work of improving and modifying curriculum and the accompanying instruction must remain on-going in order to be the most current, the most powerful, and the most effective, for these are the standards of excellence to which the Lexington Public Schools has always aspired.

In summary, our work has helped to clarify grade-level expectations, has helped to inform instruction, and have led to more consistency of mathematics instruction across grades and across schools at all levels. End-of-year assessments have been established, common Informative assessments have been created at all grade levels as a result of focused PLC work, emphatic attention has been placed on instructional interventions designed to improve learning in all programs, and our MCAS have demonstrated that student performance/achievement has improved, as a result. Our work has taught us that the "work" is never truly over; instead it has emphasized the need to consistently and regularly review what we teach, how we teach, and what to do to continuously improve.

I look forward to answering any questions you might have when we meet next week Tuesday, June 8.

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Highlights:

- Both middle schools offer tremendous opportunities for students to engage in mathematical experiences outside of the classroom. After-school Math Teams are a popular activity at both Diamond and Clarke. Each school participates in nineteen (19) mathematics contests each academic year. Some of the competitions include: The Intermediate Math League of Eastern Massachusetts, Math Counts, the Continental Math League, the New England Math League, the American Math Competitions, Purple Comet, the Lexington Math Tournament, American Scholastic Math Association, and the Exeter, NH Math Club Competition.
- Awards by Lexington students and teams are annually numerous for the above stated competitions. Both Clarke and Diamond are top scorers nearly every year. Clarke MS placed 1st for the last 4 years and Diamond was consistently in 1st place for the 9 years prior to that. Both schools have top scoring teams in MATHCOUNTS (1st place for 4 years running for Clarke MS). Seven out of sixteen students who have won trips to MATHCOUNTS nationals in the last 4 years have come from Clarke and Diamond; Both middle schools have consistently come in the top 3 at the state level for the New England Math League competition; Clarke MS has placed 1st in the Purple Comet for the last 3 years.
- The most impressive piece of information that bears mentioning here is that EACH school has more than 100 students who are eager to participate and try out for these events. This level of interest clearly speaks to the amount of engagement our students have in the mathematics program. This interest is undoubtedly fueled by the passion and instruction provided by the department.
- o The First Annual Lexington Mathematics Tournament (LMT) is a contest that Lexington High School students organized and ran on a Saturday this year in an effort to "give back" to the middle school math programs that nurtured their own growth and development in this field. TheLHS students wrote ALL the questions, administered all the testing, graded all the tests, designed a website, pursued the necessary funding, purchased awards, and ran an overall excellent competition at which Lexington middle schools had 5 participating teams who placed 1st, 4th, and 5th this year. Ten other districts entered their middle school teams in the competition. Generally, only one team per district attended, but Lexington had 5 teams representing both middle schools.

High School, 9-12:

- Curriculum:
 - An essential common <u>core curriculum for each course and level of instruction</u> has been created. The program is aligned to the *NCTM Standards* and *Massachusetts Frameworks*. All teachers have explicitly agreed to ensure their students would receive instruction in all identified topics, thereby establishing strong horizontal articulation.
 - As part of the professional learning community (PLC) work this year, each course team developed a <u>summative assessment</u> that will be administered at the end of the year to evaluate whether students can demonstrate their understandings of the "agreed to" priority standards. The resulting discussions about teaching and learning, assessment, and standards-based instruction have been substantive and have fostered a mutual accountability.

- Teachers will collate the results of these summative assessments and compare learning across sections of the same course at the beginning of the next academic year in order to further refine their work.
- New textbooks have been reviewed and selected for purchase for the Level 1 pre-calculus and calculus courses for implementation in the FY11 academic year.
- The performance records at mid-year of 9th grade students are sent to the 8th grade teachers so that they may see how their previous year's students are doing in their recommended mathematics courses. This exchange of information assists teachers in making future recommendations for placement and encourages face-to-face communication between teachers.

Professional Development:

• The design of summative assessments for each course at the high school has been guided and highly influenced by the work of nationally renowned assessment experts Larry Ainsworth and Mike Wasta in keeping with the collaborative philosophy of PLCs which focuses teacher attention on student data and the appropriate instructional response to the data. Four full-days of training were provided by these 2 individuals to the high school Leadership Team.

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Mathematics Curriculum Review 09-10

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Lexington Public Schools Office of the Superintendent of Schools

MEMORANDUM

To: School Committee

From: Paul B. Ash, Ph.D. Superintendent of Schools

Re: Report on 2009-2010 System Goals

Date: June 8, 2010

I am very pleased to report that the faculty and administration made significant progress on all of the 2009-2010 system goals. Some of the major accomplishments this past year have included:

- Selected by the Massachusetts Department of Elementary and Secondary Education as the only K-12 school district that was designated as a school district with high achievement and high growth on the grade 3 through 10 mathematics MCAS examinations. In addition, all Lexington schools scored near the top of the state on the English Language Arts MCAS examinations;
- Completed K-12 curriculum reviews in three departments;
- Expanded the use of professional learning communities to improve the quality of teaching and learning;
- Provided a research-based professional development program to 211 teachers, instructional assistants, and administrators to improve the quality of teaching and learning;
- Enhanced the district's capacity to utilize technology both as an instructional and administrative tool;
- Received Town Meeting approval to develop bid documents for Bridge and Bowman renovation projects;
- Reduced special education transportation costs by \$400,000 through inter-district routing;
- Continued to lower energy consumption in all schools; and
- In collaboration with the Town Manager, negotiated a coalition agreement with all sixteen unions that will reduce the Town's cost for health insurance.

My sincerest thanks to everyone that helped us achieve our goals and improve learning for all students.

The following three core purposes represent the essential and enduring commitments of the Lexington school community:

Academic excellence Respectful and caring relationships A culture of reflection, conversation, collaboration and commitment to continuous improvement

As such, these three core purposes serve as the basis for the district's 2009-2010 System Goals.

1. Ensure that the academic, social, and emotional needs of ALL students are identified and matched with appropriate and effective curriculum and instructional experiences.

Key Indicators:

A. Conduct Year 1 of the K-12 curriculum review process for the English Language Arts program.

In order to provide high quality curriculum and instruction in each of our programs, curriculum <u>must</u> meet the highest national and state standards in content, concepts, and best pedagogical practices. Lexington has worked diligently and rigorously over the course of the past four years to conduct program reviews based on a three-year review cycle. To date, three curriculum committees have completed the three-year cycle: Mathematics, Physical Education/Wellness, and Science. The English Language Arts (ELA) review committee completed the first year of the review process and presented its report to the School Committee on May 25. The Year 1 program goals and accomplishments for this committee were:

- Assembled three vertical K-12 subcommittees: Standards, Research and Literature, Student Performance and Assessment, to answer essential questions.
- Identified the best practices and programs for English language arts instruction.
- Identified what students will know and be able to do at the end of each school year.
- Identified what is and is not working in the existing curriculum.
- Developed a survey given to ALL teachers K-12 and worked in grade spans to analyze survey results.
- Organized MCAS and other data trends by grade span.
- Developed a vision and mission for the curriculum.
- Learned to use the Atlas Rubicon Curriculum Mapping Tool, a web-based program adopted by the district to assist in the development of all curricula reviews. English language arts will be the first review committee to use Atlas Rubicon to develop an interactive and accessible curriculum.
- The entire committee read and discussed the research and standards that will influence the on-going work of the committee.

The ELA committee is scheduled to begin Year 2 of the process on two summer workshop dates: August 25 and 26, 2010.

B. Finalize the curriculum review process for Mathematics.

The curriculum review process for Mathematics required an additional half-year in order to complete the details of the three-year review. In addition to the work completed at the erad of Year 3 and reported to the School Committee on June 2, 2009, a Scope and Sequence forgrades 6-8 has now been completed. A binder of resources and activities for each teacher for each course and level was developed to support the instruction of the curriculum. New textbooks for the 8th grade Algebra I program and the High School Level 1 pre-calculus and calculus courses have been reviewed and selected for purchase and implementation.

Some of the most important work completed this past year has been the creation of common assessments developed collaboratively by the mathematics faculty members of both middle schools to ensure that common priority standards are being addressed, taught, and learned by students in the same courses and levels across the district. The mathematics teachers from both Clarke and Diamond worked as a Professional Learning Community (PLC) to identify the essential ideas embedded in each course and in each unit of study. Similar work has also been done at the high school level to design summative assessments for each course. The high school work has been guided and influenced by the work of nationally renowned assessment experts Larry Ainsworth and Mike Wasta in keeping with the collaborative philosophy of PLCs that focuses teacher attention on student data and the appropriate instructional response to the data.

This past year, the district took steps to share student and program information with teacher-s in the next grade. For example, last year's K-5 end-of-year assessments for each grade yielded valuable data for teachers and mathematics specialists to provide appropriate services for students as we entered the 2009-2010 academic year. In order to encourage and promote common understandings of the 6th grade program of studies among the 5th grade faculty members in the six elementary schools, a joint meeting was held to share information about middle school programming and to provide clarity around matters of

The key to continued success in the curricular development process is regularly scheduled conversation and discussion among all mathematics teachers, particularly at the critical transition junctures. Reports from 9th grade teachers on the performance of previous 8th graders will be sent to 8th grade teachers so that they may validate the appropriateness of their student course recommendations. The 5th grade end-of-year assessment results will be sent to each middle school so that 6th grade teachers will have more information at the beginning of the year regarding those skills mastered or in need of reinforcement for their

This past year, a strong focus has been placed on the need to use technology as an instructional tool to address the varied learning needs of students and to reinforce those skills that are required in a 21st century environment. Specifically, two new programs were added this year: FASTT Math, a program designed to increase students' automaticity skills in basic arithmetic facts (at the 3rd grade level for all students), and Fraction Nation, which was introduced as a pilot at the middle school to promote the understanding of

The district-wide adoption of *Atlas Rubicon*, a web-based program for curriculum articulation, promises to be a valuable tool for us as we move forward in placing all of our curriculum "on-line" for teachers to access and to be able to share implementation strategies and activities across grade levels. Certain "privileges" and access to this site will also be provided to parents, once the work of uploading and refining our information is complete. Further training is planned for this summer in the use of this program.

C. Complete Year 3 of the Science, Technology and Engineering Curriculum review.

The science curriculum review process has been a successful endeavor with products and processes in place that will impact the program in future years. The science and engineering concepts and skills identified in the Lexington document are aligned with the Massachusetts Science and Technology/Engineering Framework at all grade levels. In several areas, Lexington standards have been developed that are more rigorous than state standards.

A summary of the work, by level, is described below:

Elementary

- a. Completed curriculum document (materials alignment, vocabulary, common assessments).
- b. Revised science section of K-5 report cards, to follow a standards-based reporting format.
- c. Fully implemented new units in grade 3, Water Cycle in Massachusetts; grade 4, Sun, Moon and Stars; and grade 5, Weather and Climate. Provide professional development, as necessary.
- d. Offered Science Notebooks workshops for all K-5 classroom teachers and literacy specialists.
- e. Provided a selection of technology/engineering design challenges for each grade level K-5, including "Engineering Is Elementary" units (at least 1 per year required).
- f. Included lessons on the application of technologies such as recycling and energy conservation.

Middle School

- a. Completed curriculum documents with accompanying activities associated with standards, the development of common assessments, the development of the climate change strand, and the design of activities for using the Vernier Probeware System.
- b. Evaluated and chose textbooks and student reference materials to support the curriculum.
- c. Collaborated with Review Team members to develop Technology/Engineering program. This involved identifying student objectives that will enable the achievement of state standards in technology/engineering.
- d. Continued to identify common vocabulary to coordinate with common assessments using the Classroom Performance System (personal response "clickers").
- e. Offered workshops to ensure that all teachers are trained to use new equipment.

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June 8, 2010

High School

- a. Reformatted curriculum documents using NEASC work as a base, including the identification of essential vocabulary.
- b. Implemented new curriculum/labs using the Vernier Probeware System and collected data (student assessments) to compare student achievement before and after implementation.
- c. Collected and reviewed data about the impact of the new ecology unit in the Earth Science course.
- d. Offered professional development workshops for teachers to address ways to help and encourage struggling and underperforming students. Designed and implemented workshops to bring teachers of Level 2 classes together to discuss best practices.
- e. Reviewed the Massachusetts Technology/Engineering standards and identified the essential standards. Examined current LHS science courses for areas where these essential technology/engineering standards could be integrated into the current curriculum. (Rationale: There are five sets of science/engineering standards for high school. It is not feasible to teach full-year courses for all five. By adding some technology/engineering standards to the four comprehensive courses, Earth Science, Biology, Chemistry and Physics, all students will be exposed to the essential technology/engineering standards.)
- f. Identified opportunities for students to learn additional technology/engineering skills through after-school programs, electives, and courses taught in other departments.

D. Implement Year 3 of the Equity and Excellence Report.

Three years ago, the district made a commitment of focus time and resources to address the significant academic gap between resident students and our METCO students from Boston. Over time, the mission of the Achievement Gap Task Force broadened to include ways we could provide excellence *with equity* for all students. During this past year, all nine schools focused on specific activities to identify struggling students, monitor student achievement, and provide intervention services as quickly as possible. Last October, the Equity and Excellence Committee presented its annual MCAS report that showed progress in closing the achievement gap in grade 10 mathematics, and grades 8 and 10 English Language Arts. In 2006, 56% of the Boston students scored proficient or advanced on the grade 10 mathematics exam. In 2009, 78% of the grade 10 Boston students scored at the proficient or advanced level. In 2006, grade 8 and grade 10 Boston students scored at the proficient or advanced level, respectively. Three years later, the percentage of students at the proficient or advanced level increased to 75% (grade 8) and 91% (grade 10).

There is much to laud, much to assess, much to learn, and a great distance still to go. Five major areas of focus this past year included:

- 1. **Program Development**: Curriculum Reviews, Units of Study in Writing, CARE, Words Their Way, FASTT Math, Literacy Book Groups, Executive Functioning, METCO Scholars, METCO Seminars, and Zeroes Aren't Possible (ZAP), to name a few
- Data-Driven Instruction: Developmental Reading Assessment (DRA), AIMSweb Literacy Probes, Common Formative and Summative Assessments, Tiered Intervention Systems, Content / Grade-Level Professional Learning Communities, and Rubrics, to

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- 3. **Intervention:** Intervention Block Scheduling, Leveled Literacy Intervention System, RTI (Response to Intervention), Three-Tiered Mathematics Intervention System, Intervention RAVE-O, Re-Grouping Math Stations, Culturally Relevant Instruction, and Freshmen Academic Club, to name a few
- 4. Extended Learning: MELP (METCO Extended Learning Program), MASC (METCO After School Club), Math Path, and After School Homework Clubs, to name a few
- 5. Professional Development: Spring Professional Development Courses (funded with federal stimulus dollars), Multiple Assessments Training, EDCO, PLC Development, RTI Study Groups, Multi-School PD Meetings, Common Assessment Conferences and Training, Data Team Development, and Harvard's Achievement Gap Initiative, to name a few

E. Develop a K-5 report card that more accurately communicates student achievement and progress.

A committee of twenty-nine teachers, administrators, and program leaders representing all curricular areas and all K-5 grade levels, including special education and ELL teachers, began work in September to develop a K-5 report card that will more accurately communicate student achievement and progress. The first several meetings focused on recent standards-based research, in order to develop a common understanding of what is meant by a *standards-based* approach to assessment. Multiple samples of other districts' reporting tools were collected, shared, and reviewed. In addition to the goal of identifyin **g** the power standards related to each curriculum area, it was equally essential that we agree on those standards related to student work habits, personal development, and classroom/community skills.

This summer, work is scheduled to refine and prepare this draft document for distribution and review to all K-5 teachers and specialists in September. Next year, the report card committee will develop rubrics that will be used to assess each identified skill. A clear understanding of the meaning of the rubrics is essential to ensure inter-rater reliability. The Director of Educational Technology is currently exploring the role of X2 in the final implementation of the report card so that all information regarding student performance can be entered electronically by teachers via a series of drop-down menus designed to fit the needs of each grade level. A plan will be developed to educate teachers and parents on the new report card once it is ready for pilot implementation.

F. Expand the district's capacity to use data to assess programs and student work.

In order to further increase student performance, we continued to expand the district's capacity to use data to assess student work. At the high school, consultant Mike Wastaworked with PLC teams to develop meaningful formative and summative assessments . Teams at the middle schools met regularly to create common assessments and begin to analyze the student data that was collected. PLC teams at the elementary schools focused on assessing student work in math and/or ELA.

Other initiatives to use data included:

- Data Warehousing Elementary principals, elementary curriculum leaders, and selected high school and middle school educators were trained to use the state's Data Warehouse to access and analyze MCAS data. These educators provided MCAS data to teachers in their respective schools, to the ELA Curriculum Review Committee, and to METCO Extended Learning teachers.
- AIMSweb progress monitoring system In order to monitor reading fluency and to provide data for determining reading intervention strategies, AIMSweb tests were incorporated for all K-2 students (and Grades 3-5 at Bowman).
- FASTT Math and InspireData Math specialists and Grade 3 teachers (Grade 4 at Fiske) were trained to understand the student data on math automaticity being provided by the FASTT Math software. In addition all elementary math specialists as well as selected elementary teachers were trained on using InspireData (a visual database analysis tool) to analyze formative math test data.

G. Expand opportunities to improve student social and emotional supports.

The Guidance Department formed a K-12 committee whose goal was to align the LPS guidance program with national guidance standards and Massachusetts guidance standards, with a particular focus on expanding opportunities to improve student social and emotional supports and resiliency.

For our purposes, resiliency was defined as experiencing and managing difficult situations by utilizing effective coping skills while maintaining emotional and physical health.

The K-12 Guidance Department is researching the possibility of developing a program focused on *Teaching Resiliency to Promote Academic Success*. Guidance counselors worked with classroom teachers, implemented classroom interventions and activities, formed counseling groups, and worked with individual students in the area of resiliency. Skill development was also provided in the areas of conflict management, coping strategies, stress management, and positive peer relationships. The guidance department is currently gathering data from different sources to identify student, parent, and faculty concerns, and to develop a more formalized program based on student needs. A comprehensive teacher survey was developed and administered. Teachers were asked to assess the following:

- Healthy and unhealthy student coping strategies
- Student stress "triggers"
- How stress manifests itself in students
- The degree to which managing stress is a significant student issue

In late June, counselors will analyze the teacher survey data, finalize corresponding student and parent surveys, and establish a time table for their administration. Counselors will then incorporate their findings into future work implementing responsive as well as preventive school-based interventions.

A second district-wide guidance committee worked on the development of a pilot Response to Intervention (RTI) system to identify, respond, and monitor students with emotional/behavioral needs. The pilot is scheduled to be implemented at the Bridge School during the 2010-2011 school year. After examining numerous screening and assessment tools, the committee chose a screening tool, the BASC-2 Behavioral and Emotional Screening System, which will be used to help identify students at risk. In addition, the eCove data collection system will be used as part of the screening process. The 3rd grade students at Bridge have been selected as the target grade for this pilot. The Bridge School also created the Behavior Assistance Committee made up of counselors and teachers who will review the results of the screening and then recommend intervention strategies to be implemented for those students identified. This year, the Behavior Assistance Team (BAT) began developing intervention strategies for each tier. The committee also researched progress monitoring tools to assess the effectiveness of the intervention strategies. The BAT met on a regular basis and recommended intervention strategies for specific students referred to the team, even though the formal screening process was not in place. This screening process is slated to begin in September 2010. While the Bridge School has been selected for the pilot, other schools across the district, including both middle schools, have volunteered to participate in implementing this RTI system.

During the 2009-2010 school year, various high school departments examined the population of students served in the Multidisciplinary Support Team (MST) program and the population of students who have been hospitalized for emotional crisis. The level of academic and social/emotional support provided for students hospitalized is not adequate. Given the needs of these students and the difficulties transitioning back to school, the LHS guidance and special education staff, in collaboration with administration, developed the Alpha Program that will support students who have been hospitalized for an emotional crisis. During the 2010-2011 school year, the Alpha program will consist of academic support, social emotional support and case management for general education students who experience psychiatric hospitalizations. While the MST will continue to provide support in the academic and psychosocial domains, it is a special education program and services only those students on an individualized education program (IEP). The Alpha Program is needed to support students in general education. By restructuring services and reassigning existing staff, a .8 FTE social worker will be hired to provide services to general education students upon returning from hospitalization. Academic tutoring and case-management will be provided to students. The Alpha Program will assist students in the transition back to school and provide families with community resource assistance. The Alpha program can also serve to be a hospital diversion program in the future, providing support to help stabilize students with the hopes of preventing hospitalization.

Members of the Lexington Public Schools staff and administration will be attending a conference on the new anti-bullying legislation on June 23, 2010. Additional planning and program development will take place once regulatory requirements are known.

2. Ensure that the faculty and staff are of high quality and are enabled and supported to perform at the highest professional level.

Key Indicators:

A. Support teacher professional development that increases learning and student achievement.

The joint LEA/LPS Administration Professional Development Committee was organized in June 2009 for the purpose of recommending the most effective ways to create job embedded, capacity building, professional development, utilizing stimulus funds, to support the long-term educational goals of the school system. The committee was charged with "Identifying the short- and long-term ways in which, together, we can create a self-sustaining, job-embedded professional development program that supports the ongoing needs of teachers and students."

The seventeen members of the K-12 Professional Development Committee began their work by reviewing the current abstracts, articles, and literature on establishing high quality, effective professional development. The committee reviewed the National Staff Development Council's recommendations for staff development and published standards, the Lexington Public Schools' system-wide goals and individual school improvement plans, and the system-wide curriculum review and Equity and Excellence reports on the LPS website.

The committee identified key principles for effective professional development; drafted a Vision Statement for LPS Professional Development, including Principles for Effective Professional Development; and drafted Standards and Indicators for the LPS Professional Development Program. Within the context of the established vision, principles, and standards, the committee focused its energies on developing workshops and course offerings, directly aligned with the systemwide goals and efforts to close the achievement gap and provide equity and excellence for all students.

The committee obtained feedback from all stakeholders through a series of focus interviews and an online Professional Development Survey (430 respondents). The results, key findings, and recommendations from the survey and interviews were communicated to all stakeholders. Based on this information, the committee recommended the courses and workshops for the spring 2010 pilot. Six courses/workshops were offered in the area of curriculum and instruction, and eleven workshops were offered in technology. Two hundred thirteen staff members participated in these courses, representing all nine schools and the Central Office. The committee has recommended a series of courses for the summer, and is in the process of conducting an evaluation of the spring pilot.

B. Enhance the district's capacity to utilize technology both as an instructional and administrative tool.

The district implemented staffing changes to improve technology support and delivery of services immediately. In the summer of 2009, an Elementary Technology Specialist, an Assistive Technology Specialist, and a Field Technician were hired. A budget for FY11 was developed that called for additional staffing positions – three Instructional Technology Specialists and three Technology Maintenance Associates.

A significant amount of technology hardware was purchased and deployed (approximately 600 computers, 40 printers, and 50 projection systems). Of emphasis in this purchase was wireless hardware in all schools in order that classrooms and meeting areas become areas where students and teachers use technology in a more seamless manner. In addition, a consultant was hired to provide long-term capital budget recommendations for the renovation of all of our buildings to incorporate wireless technology and interactive

whiteboards (or tables) for every classroom. The district was able to improve internet access by securing increased bandwidth for internet use and by the deployment of a content filter.

Promising classroom instructional practices for using technology were instituted in all schools. These practices included FASTT Math for Grade 3 students, reading fluency technology for selected struggling readers, the use of science probes, employment of laptops in special and regular education to promote writing across the curriculum, document readers and projection systems to better visualize classroom instruction, and the on-line incorporation of wikis, blogs, and online discussions to support student writing, student reading, and student curriculum understanding. Professional development opportunities for classroom technology integration were provided through both a coaching model and through formal workshops.

Communication between teachers and parents was encouraged through the creation of teacher web pages. Currently every middle school team and most special teachers not on the teams at the middle schools are maintaining their own web sites. In addition, individual high school and elementary teachers are maintaining their own web sites. An on-line curriculum-mapping tool by Atlas Rubicon Inc. was introduced for use by our different curriculum review teams to produce fluid curriculum documents and resource materials for teachers.

C. Foster a more diverse workforce in keeping with Lexington's goal to embrace diversity.

This past year we continued our efforts to increase the diversity of our workforce by seeking new opportunities in the areas of teacher recruitment and development. Although we continue to attend local and regional diversity job fairs, these fairs have not resulted in our hiring minority candidates. This is largely due to the fact that there are very few minority applicants in the "pipe-line." Working with Lexington's Diversity Task Force, Brookline and Andover, and a New York State based organization named *Today's Students Tomorrow's Teachers*, we decided to seek funding through a Federal Innovation Grant to start a "grow your own" program in the 2011-2012 school year. The purpose of this program will be to establish a small cohort of students of color who, with academic support, mentoring, and college tuition assistance, may someday go on to be teachers of color working in the Lexington Public Schools.

The Diversity Task Force has been instrumental in providing support for this initiative. Task force members attended a regional diversity summit at Regis College to learn about this program from the founder and CEO of *Today's Students Tomorrow's Teachers*, Dr. Bettye Perkins. The task force will also continue its efforts to promote diversity within the community by sponsoring various activities in connection with the town-wide celebration of the Martin Luther King Day in January 2011.

Finally, William Cole, Dean at Lexington High School, was recognized at Town Meeting as the recipient of Lexington's annual Diversity Award for his work with the METCO Scholars program.

3. Obtain and manage the resources that maintain and improve the quality of the educational program and physical condition of our schools.

Key Indicators:

A. Continue to implement cost-savings opportunities throughout the school system while maintaining high quality services.

Transportation – In the spring of FY 08, Lexington Public Schools began discussing collaboration with Arlington, Burlington, Waltham, and Watertown to combine routes so that students who attend the same school could share one vehicle. In FY 09 the five districts combined twenty routes with approximately 100 students sharing rides and saved the town \$186,000. During FY 09, business managers, student services directors, and transportation coordinators met monthly to discuss expansion of the pilot program. For FY 10, the LABBB/EDCO Transportation Network was expanded with the addition of Belmont Public Schools. I am pleased to report that the Transportation Network included 96 programs and 375 students. Lexington and Belmont included all in-district students in the bidding process for more competitive prices.

- FY 08 Actual \$1,035,236 (old model)
- FY 09 Actual <u>\$849,070</u> (pilot)
- FY 09 Savings \$186,166 (returned to town)
- FY 10 savings from budgeted amount is \$397,000 (as of the 3rd quarter)

Facilities – The Department of Public Facilities (DPF) continued to prioritize cost savings opportunities while maintaining high quality service. The DPF implemented a Kronos Work Force Central Time and Attendance System that records custodian attendance in real time at each school. The DPF also collaborated with the SEIU on a new systemwide custodian position that can be deployed at any school without prior notice. The combination of these two improvements enables DPF to assign system wide custodians daily to replace absences and to reduce overtime. The FY 2011 overtime budget was reduced by \$15,100 (8.6%) due to these changes.

The Department also continues to implement improvements on utility efficiencies. The FY 2010 school utility budget is currently forecast to end the year at \$252,000 favorable. The FY 2011 utility budget is reduced \$281,000 by incorporating savings from the Clarke and LHS energy efficiency projects, Estabrook natural gas conversion, reduction of phone lines at LHS, water and sewer reductions, and implementation of grant funding to replace the Central Administration oil fired boilers with high efficiency natural gas boilers.

B. Develop a ten-year facilities master plan.

The Ad Hoc Facilities Committee (AHFC), the Superintendent, and the Public Facilities Department met throughout the summer reviewing the Design Partnership of Cambridge PreK-12 Master Plan. The AHFC report to the School Committee agreed with the conclusions of the Master Plan that LHS is overcrowded and should be pursued for MSBA funding, Estabrook should be replaced, Bridge and Bowman should be renovated and Hastings will need replacement or renovation. From this report, the Superintendent and DPF proposed a 10 year Capital Plan. The plan minimum budget of \$72.6M addresses the deferred maintenance of the four schools, replaces Estabrook, and includes \$12.1M to address the ongoing needs of the district. An additional \$33.2M may be required if the MSBA supports the Statement of Interest (SOI) to address overcrowding at LHS. Also, if the decision is made to replace Hastings, this is projected to add an additional \$18.9M of spending. The first phase of the ten-year plan has been initiated. In October the Superintendent submitted an SOI to the Mass School Board Authority requesting project support due to overcrowding at LHS and in April Town Meeting appropriated \$750,000 for design of the Bridge and Bowman renovations that will extend the useful lives of the two schools 20 years.

C. Negotiate six labor contracts.

At the time of writing, tentative agreement has been reached between the Town of Lexington and all 16 unions town-wide regarding the settlement of a two-year Public Employee Coalition (PEC) agreement. The PEC agreement will be brought for ratification by all unions by mid-June 2010.

At this time, the Lexington Public Schools has further reached tentative agreement with all LEA bargaining units (Unit A, Unit C, and Technology Unit) with respect to a three (3) year wage settlement. Tentative agreements have also been reached on contract language with Unit A and Unit C. Although we are still in contract negotiations with the Association of Lexington Administrators (ALA) and the Lexington Educational Secretaries Association (LESA), we anticipate both wages and contract language on or before June 30, 2010.

Lastly, since the collective bargaining agreement between SEIU Local 888 (custodians and maintenance workers) and the School Committee does not expire until June 30, 2010, the parties have not been actively engaged in negotiations at the table. We anticipate that the parties will reach a wage agreement prior to June 30, 2010, and that they will continue to negotiate language items.

D. Continue to improve the safety programs in all schools.

The district has taken the following measures to improve safety in all schools:

- 1. The REMS Advisory Committee has met monthly to oversee the implementation of the REMS grant. The Advisory Committee includes Town representatives of the Health Department, Town Manager's Office, Police, Fire, and Youth Services. In addition, three parents serve on the committee. The first year report for the grant is due in July and the report will conclude that the implementation is on schedule to achieve sustainable Emergency Management Plans for each school with trained staff, appropriate communication to students, and instructions to parents on emergency responses. In addition, staff has been trained to implement for school safety. Practice on the Emergency Management Plans is scheduled for August 23, 2010. The district is in mid-cycle of the implementation plan. An advisory Committee is established with three parent representatives.
- 2. The Assistant Superintendent for Finance and Business, in coordination with the school department's Lead Nurse and the Lexington Director of Public Health coordinated a school-based response for H1N1 Influenza, the recent Boil Water Order, and PCBs in our pre-1978 constructed schools.
- 3. The Superintendent utilized the voice component of the emergency notification system to announce snow days and two of our town-wide health events. The Assistant Superintendent for Finance and Business utilized the email function of the emergency notification system during two of our events this year.

Best Practices for School, Family, and June 8, 2010 Community Engagement Subcommittee tes calltain otert Vega 1 School, Family and • Community Engagement Presented by Best Practices for School, Family and Community Engagement Subcommittee June 8, 2010 How timely ... • May 5, 2010 - Family Engagement in Education Act (HR.5211) introduced to US Congress • May 25, 2010 - - Massachusetts Proficiency Gap Task Force recommended BESE adopt a statewide set of standards for engagement •What does effective engagement look like?

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•What does effective engagement look like? • A shared responsibility

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•What does effective engagement look like?

- A shared responsibility
- Continuous across a student's life
- · Carried out everywhere children learn

June 8, 2010

•What about engagement in Lexington?





June 8, 2010







June 8, 2010













June 8, 2010



Communication

- Student Information Systems in districts nation-wide
 Improve efficiency and effectiveness of teacher-parent communications
- Productive engagement of parents in grades K-12
- District-wide Recommendations K-12 All assignments and progress online in middle and high schools by foll 2011
 - o Communicate student perspective to parents
 - LPS website resources and navigation

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- · LPS website resources and navigation
- · Timely email and phone communications



- LPS website resources and navigation
- Timely email and phone communications
- School Visitars' Guidelines (Boston Public Schools)















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Best Practices for School, Family, and Community Engagement Subcommittee Report & Recommendations to the Lexington School Committee June 8, 2010

Introduction & Rationale

Across the country, school districts are engaged in conversations and researchbased strategies designed to improve student learning. Among those strategies is evidence showing schools that partner with families ¹ and community achieve a range of benefits for students, including improved school readiness, higher student achievement, better social skills and behavior, and increased high school graduation and preparation for college and career challenges.² The Lexington Public Schools had not engaged in conversations focused on family and community engagement as a strategy for improving student learning. As a starting point, one of the 2009-2010 School Committee goals is to assess best practices for school, family, and community engagement.³

The Best Practices for School, Family, and Community Engagement Subcommittee (BP/SFCES) was appointed by the Lexington School Committee in April 2010. Members are: Chair, Mary Ann Stewart; Secretary, Jennifer Vogelzang; Nancy Adler; Alessandro Alessandrini; and Kevin Johnson. The goal of the BP/SFCES is to present best practices for school, family, and community engagement and to make specific recommendations about how best to foster engagement in Lexington's Public Schools.

Discussion & Summary

Research on family and community engagement over nearly forty years shows that when school staff, families, and community members work together to develop a system of supports for children, these collaborative efforts lead to better educational and developmental outcomes for children.⁴ It is important to note that family engagement changes over time as children develop and transition to new learning environments.

We reviewed relevant websites, articles, reports, and book excerpts, and also drew upon relevant personal experiences to investigate and identify key best practices that promote greater engagement for potential implementation in the Lexington Public Schools. Key recommendations are also offered in this report.

¹ The terms parent or family are intended to mean a natural, adoptive or foster parent, or other adult serving as a parent, such as a close relative, legal or educational guardian and/or a community or agency advocate.

² Desforges, C. & Abouchaar, A. (2003). The impact of parental involvement, parental support, and family education on pupil achievements and adjustments: A literature review. London: Department for Education and Skills; Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. Educational Psychology Review, 13 (1), 1-22.

³ Goal #6, Lexington Public Schools, School Committee Goals for 2009-2010 http://lps.lexingtonma.org/Current/LPSSCgoals0910.pdf

⁴ Henderson, A., & Mapp, K. (2002). A new wave of evidence: The impact of school, family, and community connections on student achievement. Austin: Southwest Educational Development Laboratory.

Much of our discussion centered on how engagement systems will be successfully integrated and sustained. There is a lot more to engagement than persuading parents to support district initiatives; clear family-school communication seems obvious and community engagement, integral.⁵ Upgraded school facilities, improved school leadership and staffing, higher quality learning programs for students, and new resources and programs to improve teaching and curriculum are key indicators showing community engagement in schools improves educational opportunities for children and adults. All elements of school improvement are more likely to succeed if parents help students focus on learning and teachers create effective partnerships with parents.

Family & Community Engagement

The BP/SFCES reviewed the Harvard Family Research Project ⁶ Issue Brief, "Seeing is Believing: Promising Practices for How School Districts Promote Family Engagement".⁷ The authors present family engagement as a critical component for a child's success "from cradle to career". Family engagement in a child's education can be cost-effective, for example, schools would have to spend \$1,000 more per pupil to reap the same gains in student achievement that an involved parent brings.⁸

We reviewed critical success factors of the six school districts highlighted in the brief, noting three core components identified as best practices for systemic family engagement: fostering district-wide strategies, building school capacity, and reaching out to and engaging families. Generally speaking, the goal is to embed family engagement systemically, for example:

- In Wichita, KS family engagement is embedded into school district culture with a "customer" orientation, professional development focused on effective engagement strategies, and an annual parent survey.
- From Boston Public Schools we learned how district policy supports an infrastructure, articulates clear expectations for schools, provides comprehensive

⁶ A project of the Harvard Graduate School of Education. www.hfrp.org

⁷ Seeing is Believing: Promising Practices for How School Districts Promote Family Engagement. July 2009. Helen Westmoreland, Heidi M. Rosenberg, M.Elena Lopez, Heather Weiss. <u>http://www.hfrp.org/publications-resources/browse-our-publications/seeing-is-believing-promising-practices-for-how-school-districts-promote-family-engagement</u>

⁸ Houtenville, A.J. & Conway, K.S. (2008). Parental effort, school resources, and student achievement. Journal of Human Resources, 43 (2), 437-453.

⁵ In the 2000 census (<u>http://www.census.gov/main/www/cen2000.html</u>), for example, families with children in school made up ~25% or less of communities (nationwide). Engaging the larger percentage (75% or more) of community members is critical for supporting school budgets and overrides. We will see what the 2010 census has to tell us about the percentage of families and community members. The just-released Lexington Demographic Change Report shows how Lexington's demographics have changed over the past twenty years.

outreach efforts, and embeds professional development for engaging families in effective ways.

 Federal Way, WA co-constructed a shared vision, with a district-level parent committee and learning and accountability meetings. The focus on learning includes family-school communication and a parent leadership institute; community partnerships are purposeful and aligned with school goals.

The strategies employed in the above examples helped shape our understanding of what effective engagement is:

Effective engagement is a shared responsibility where schools and community organizations commit to engaging families in meaningful and culturally respectful ways and where families actively support their children's learning and development.

Engagement is continuous across a student's life - from birth and extending through college and career preparation programs.

Effective engagement is carried out everywhere children learn including homes, early childhood education programs, schools, after-school programs, faith-based institutions, playgrounds, and community settings.

When family engagement is effective, it promotes student success and is a critical component for continuous school improvement. Effective practice encompasses everything from a welcoming environment to effective communication to understanding how to navigate complex school systems and collaboration with community partners. Success factors include opportunities for engagement and promoting family role commitment, such as shared decision-makers in decisions affecting students, as partners in learning, and as advocates and advisors for their children. The "4 Versions of Family-School Partnerships" from *Beyond the Bake Sale – the Essential Guide to Family-School Partnerships*, ⁹ supports our understanding that communication as a key component to effective engagement.

Best Practices & Recommendations

Research indicates that effective school, family, and community engagement is not a one-time program or choice of a good school, but rather a set of day-to-day practices, attitudes, beliefs and interactions which support learning everywhere children learn. Families, schools, and community groups need to work together to promote engagement that is systemic, sustained, and integrated into school improvement efforts so that students are prepared for transitions in their development and all along their educational career.

The Best Practices for School, Family, and Community Engagement Subcommittee has identified key best practices and offers specific recommendations that we

⁹ Henderson, A., Mapp, K., Johnson, V., Davies, D. (2007). Beyond the Bake Sale: the Essential Guide to Family-School Partnerships. New Press, p.14-18

believe will strengthen engagement and improve student learning in Lexington's Public Schools:

Key Best Practices

- District-wide Strategies: write a parent involvement policy ¹⁰ and adopt a set of standards and indicators for family and community engagement (pre-K through age 22), including rubrics for assessment and evaluation.
- **Build School Capacity:** identify an administrator and an infrastructure to support and implement a strategic plan for family and community engagement across the district.
- Reach out to and Engage Families: promote professional development opportunities that support engagement for all families.

Recommendations

I. Communication

As noted previously, communication is a key component necessary for fostering engagement. Federal law defines parent involvement as regular, two-way, and meaningful communication about student learning and other school activities.¹¹ We would add that meaningful communication is further attained between family members and school staff when it is in a manner, language, and mode of technology that family members can understand and access. Educational research and practice suggest that technology has the potential to benefit student academic performance ¹² by enhancing instructional delivery and by strengthening parental involvement in students' education. In an effort to promote engagement between school and family so that families can support their students, we offer the following recommendations:

 Resources for all families, especially for families whose primary language is not English, should be available on the LPS website.

http://www2.ed.gov/legislation/ESEA/sec1118.html

11 Ibid.

¹² #2/B LPS 2009-2010 System Goals http://lps.lexingtonma.org/Current/LPSSystemGoals0910.pdf

¹⁰ Section 1118 of Title I of the Elementary and Secondary Education Act/No Child Left Behind (ESEA/NCLB) 2002 reauthorization requires each Title I school and district to write a parent involvement policy that has been developed with and agreed upon by parents. The state education agency must monitor the school districts' Title I programs to make sure they carry out the law. If the district is not involving parents as the law requires, parents can appeal to the state. Additionally, no less than 1% of the district's Title I funds are to be used to foster and promote parent involvement throughout the district.

- System-wide school visitor guidelines would be adopted by January 2011. The guidelines would encourage parent involvement and observation of all classrooms using Boston Public Schools' School Visitors Guidelines as a model.¹³
- Ideally, teachers respond to parent emails or phone calls within two school days, and provide an acknowledgement of the communication. Principals, ideally, develop and communicate a follow-through policy that parents are encouraged to follow, if communication isn't timely (January 2011).
- Ideally, teachers make a similar effort responding to student emails, so that students take responsibility for their own learning and parents can get out of the middle of the communications. It's important to recognize that in reality, students may not have a friend in their class that they're able or willing to contact to ask a question or get clarification of an assignment.
- Consistent with current objectives, move all assignments online at the high school and middle schools in the near term (September 2010).
- Report progress online in the high school and middle schools in the mediumnear term (September 2011), including all graded work and progress currently recorded elsewhere, with progress updated at least every two weeks.
- Parents may obtain access to student progress after participating in "progress management training" for a shared understanding between school and family (mechanism to be co-constructed; online; password granted upon completion).

II. Professional Development

Teachers today encounter a myriad of parental circumstances (*e.g.*, single parents, high poverty), challenging parent behaviors (*e.g.*, demands, abuse, lack of interest), and parental and school obstacles to involvement (*e.g.*, cultural challenges, lack of time, feelings of inadequacy, an unwelcoming school structure, previous negative school experiences).¹⁴ In an effort to integrate engagement strategies at all levels, we recommend that professional development opportunities be offered to train and support administrators, teachers, and staff, as well as opportunities for shared learning with parents, to fully engage all families across the district in the education of their children.

III. Community Engagement

We continue to be encouraged by the School Department's increased transparency regarding budget expenditures. Dr. Ash is to be commended for his efforts reaching out to the community with respect to more transparency with school department finances, his work with the Action Plan for Equity and Excellence ¹⁵, and communicating

¹⁵ Action Plan for Equity and Excellence, Lexington Public Schools, May 2009. http://lps.lexingtonma.org/Current/CompleteActionPlan5_5_09.pdf

¹³ Boston Public Schools - School Visitors Guidelines

http://www.bostonpublicschools.org/files/LGL-04 School Visitors Guidelines.doc

¹⁴ Better understanding how teachers interact effectively with all parents is crucial for improving educational outcomes. This is especially significant for the National Board for Professional Teaching Standards as one of their core propositions focuses on working collaboratively with parents. The board claims that strong interactions with parents are a key dimension of a well-qualified teacher.

http://www.nbpts.org/the standards/the five core propositio

school-related articles in our local news media. There are a number of civic, faith-based, and advocacy organizations in our community that take steps to enhance and improve our school system. In an effort to support, expand, and improve district-wide efforts for community engagement, we suggest the following:

- Offer presentations of key district initiatives at occasional monthly meetings of the Town Meeting Members Association Executive Committee, Chamber of Commerce Breakfast/Lunch Series, Lexington's preschool community (via LexFUN), Appropriation Committee, Capital Expenditures Committee, PTA Presidents Council, etc., and to families at key transitions, such as at Kindergarten, middle school, and high school orientations.
- Continue to strengthen each school's Site Council ¹⁶ with trainings offered by Massachusetts Association of School Committees (MASC); provide honest and timely information about budgets, policies, and student achievement; use data to identify problem areas for improvement; include data-informed family engagement strategies in school improvement goals.
- Encourage PTAs to include a solid cross section of a school's parent community to support school improvement, provide a training ground for civic leadership, and build support for the public schools.

Conclusion

Because learning happens in the home, in school, and in the community, engagement is a shared responsibility and continuous across a child's life. In schools, engagement promotes student achievement, is essential for reform, and is cost-effective. A systemic approach underlies critical success factors.

Well-executed partnerships go hand-in-hand with school improvement. In the same way that the Equity and Excellence Committee ¹⁷ continues to identify school-based strategies for improving achievement, we believe the Best Practices for School, Family, and Community Engagement Subcommittee should continue to look at engagement as a strategy for continued school and student improvement.

¹⁶ Site Councils offer a built-in opportunity for all stakeholders (parents, teachers, administrators, students [at the high school], and community members) to be engaged in student learning and are one pathway that includes community members in decisions relative to school improvement.

¹⁷ Equity and Excellence Committee: Progress Report. May 2010. http://lps.lexingtonma.org/Current/EECProgressReport11May10

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2. Beyond the Bake Sale: the Essential Guide to Family-School Partnerships. Anne T. Henderson, Karen L. Mapp, Vivian R. Johnson, and Don Davies. (2007) New Press. http://www.thenewpress.com/index.php?option=com_title&task=view_title&metaproductid=1296

3. Boston Public Schools – Visitor Guidelines http://www.bostonpublicschools.org/files/LGL-04 School Visitors Guidelines.doc

4. Not yet released publicly, *Draft Guidelines for a Statewide Policy for Family Engagement*, April 2009. Based on PTA's National Standards for Family-School Partnerships customized for Massachusetts. Parent and Community Engagement and Involvement (PCEI) Advisory Council to the Massachusetts Board of Elementary and Secondary Education (BESE); presented at a regular BESE meeting, June 2009 (not yet voted on by BESE).

5. PTA's National Standards for Family-School Partnerships, originally written in 1997, adopted by more than 100 education organizations and associations, updated in 2007, including rubrics for assessment and evaluation. <u>http://www.pta.org/national_standards.asp</u>

6. Seeing is Believing: Promising Practices for How School Districts Promote Family Engagement, July 2009; Helen Westmoreland, Heidi M. Rosenberg, M. Elena Lopez, Heather Weiss. http://www.hfrp.org/publications-resources/browse-our-publications/seeing-is-believing-promising-practices-for-how-school-districts-promote-family-engagement

7. Several articles on the impact of engaging families with technology:

- <u>I Know What You Did Last Math Class</u>, NYT, 2008 http://www.nytimes.com/2008/05/04/fashion/04edline.html? t=1
- Montgomery County Public Schools website Resources for Parents includes Online Services, such as Edline to monitor student's performance and keep in touch with teachers <u>http://www.montgomeryschoolsmd.org/parents/</u>
- New Visions for Public Schools website High schools in New York City have begun to engage families in students' academic success and college readiness by helping parents understand achievement data. Supporting parents in grasping and using this information is a shared responsibility among schools, families, and students. <u>http://www.hfrp.org/family-involvement/publications-resources/new-visions-forpublic-schools-using-data-to-engage-families</u>
- <u>Online Grades: The Mom Who Knew Too Much</u>, from students at Columbia School of Journalism <u>http://columbianewsservice.com/2010/03/in-digital-age-online-report-cardschange-parent-student-teacher-dynamic/
 </u>

8. The Missing Piece of the Proficiency Puzzle – Recommendations for Involving Families and Community in Improving Student Achievement; Commissioner's Parent Advisory Council, Final Report to the Kentucky Department of Education, June 2007. Standards for involvement with rubric. http://www.prichardcommittee.org/Portals/1059/The%20Missing%20Piece%20of%20the%20Proficiency%2 OPuzzle.pdf

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