



Needham School Committee Meeting

Wednesday, March 7, 2012

7:00 p.m.

**Broadmeadow School
School Committee Room**



A school and community partnership that creates excited learners • inspires excellence • fosters integrity.

AGENDA

Wednesday, March 7, 2012 7:00 p.m.

Broadmeadow School: School Committee Room

Next School Committee Meeting: March 20, 2012

7:00 p.m. Public Comments

7:10 p.m. Superintendent's Comments

Discussion Items

7:20 p.m. Facilities Update: Newman Renovation & Mitchell/Hillside
Prefeasibility Study

8:00 p.m. Needham High School Improvement Plan

8:45 p.m. Needham High School Achievement Report

9:15 p.m. Action Item

Approve 2012-2013 Middle School Program of Studies

9:20 p.m. School Committee Comments

Information Item

FY12 Second Quarter School Operating Budget Projections
CIP FY13-17 Technology Request Supplemental Information

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: **Public Comments**

Background Information:

The Chairperson will offer the opportunity for the public to speak to the School Committee on issues not on the agenda.

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: **Superintendent's Comments**

Background Information:

Superintendent Daniel E. Gutekanst will apprise the School Committee of events, information, and matters of interest not on the agenda.

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: **Discussion**

Facilities Update: Newman Renovation and Mitchell/Hillside Prefeasibility Study

Background Information:

- **Mr. Gregory Bayse, Newman assistant principal, will share a brief update on the status of the Newman renovation.**
- **Architects from Dore and Whittier will share an update on the Mitchell/Hillside Prefeasibility Study.**

Persons Available for Presentation:

**Mr. Gregory Bayse, Newman School Assistant Principal
Mr. Donald Walter, Dore & Whittier Architects, Inc.
Mr. Roberto Fitzgerald, Dore & Whittier Architects, Inc.
Mr. Steve Popper, Public Facilities Director of Construction & Renovation**

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: **Discussion**

Needham High School Improvement Plan

Background Information:

- **The Needham High School Council has worked collaboratively this past year to advise Principal Jonathan Pizzi and develop and maintain the School Improvement Plan.**
- **In accordance with M.G. L. Chapter 71, Section 59c, the superintendent has approved the High School Improvement Plan.**

Persons Available for Presentation:

**Dr. Jonathan Pizzi, Needham High School Principal
Members of the Needham High School Council**



NEEDHAM HIGH SCHOOL

TO THINK – TO RESPECT – TO COMMUNICATE

Jonathan D. Pizzi, Ph.D.
Principal

TO: Daniel Gutekanst, Superintendent
FROM: Jonathan D. Pizzi, Principal
RE: NHS School Improvement Plan 2013-2016
DATE: February 29, 2012

I am pleased to present to you the Needham High School Improvement Plan for 2013-2016. This plan represents the collaboration and hard work of many constituencies within the NHS community. These include the professional staff and administration; the School Council; the SEL Committee; the Principal's Cabinet; and the Student Council.

The Needham High School community believes that this values-driven document will serve as the overarching roadmap in the school's quest to ensure that all students achieve at high academic levels in our racially, ethnically, and socially diverse school setting.

Representatives from the professional staff and I look forward to presenting our work to the School Committee on March 7. Thank you in advance for your review of this plan and please contact me at your earliest convenience should you have any questions or concerns.

NEEDHAM HIGH SCHOOL

TO THINK – TO RESPECT – TO COMMUNICATE



School Improvement Plan SY 2013-2016

*Needham High School
609 Webster Street
Needham, MA 02494*

Introduction

Development of the Needham High School Improvement Plan (SIP) for 2013-2016 has been a collaborative effort among all school constituencies, including the School Council; the Social Emotional Learning Committee; the Principal's Cabinet; the Faculty Council; and the representatives of the instructional staff. Several data points were utilized in selecting each goal and section within the SIP. Sources include the NPS 2011 Futures Special Education Program Review; the 2010 NEASC Decennial Evaluation Visit; the NPS District Goals; the NHS 2010-2012 SIP; the 2010 Metro West Adolescent Health Survey Results & Highlights Report; the NPS 2010-2011 Performance Report; and the bodies of professional research surrounding adolescent resiliency, cultural proficiency, professional learning communities, and standards-based educational practices. The professional staff at Needham High strongly believes that this plan readily reflects and supports the school's three core values, To Think – To Respect – To Communicate, and that the work outlined herein will aid the entire school community in realizing its stated mission.

The purpose of the plan is to set the instructional and organizational agendas for school improvement over the next three academic/fiscal years. This plan is closely aligned with the 2010-2012 SIP, and represents the next steps in the evolution of Needham High School. Consequently, the overarching objectives of this plan remain the same as the previous plan, while the action items represent new areas for student and institutional growth and learning. The overarching aim of this plan is to foster and support the academic achievement and social-emotional growth of Needham High's racially, ethnically, and socially diverse student community. It is with these objectives in mind that the NHS professional community will review this plan in its entirety in the spring of 2013 to assess the school's performance in each area for improvement and to modify the plan for SY 2014, 2015, and 2016 as necessary. This SIP is comprised of three "Goals" that are directly linked to the NPS District Goals. For example, Goal 1 – Ensuring the High Academic Achievement of *All* Students, and its associated action items, is closely aligned with the first district goal, "Advancing Standards-Based Learning". Likewise, Goal 2 – Developing the Social and Emotional Resiliency of the School Community, reflects NPS Goal #2 – Developing the Social and Emotional Skills of All Students. Finally, NHS Improvement Area 3 – Practicing Operational Excellence in Support of High Quality Instruction, and its associated goals coincides with district Goal #4 – Ensure infrastructure supports district values and learning goals.

To be sure, the NHS improvement goals outlined herein are broad in nature. However, the action items under each area represent specific bodies of work toward which the entire school community is committed to working.



NEEDHAM HIGH SCHOOL

TO THINK – TO RESPECT – TO COMMUNICATE

Mission Statement

NEEDHAM HIGH SCHOOL DRAWS FROM THE STRENGTHS OF THE COMMUNITY TO CREATE TEACHING AND LEARNING PARTNERSHIPS BETWEEN FACULTY, PARENTS, AND STUDENTS, BOTH ON AN INDIVIDUAL LEVEL AND IN GROUPS, IN ORDER TO PROVIDE A HIGH QUALITY EDUCATION.

THE SCHOOL OFFERS STUDENTS A VARIETY OF OPPORTUNITIES TO EXCEL AND A DIVERSITY OF PERSPECTIVES FROM WHICH TO LEARN IN AN ENVIRONMENT THAT IS BOTH NURTURING AND CHALLENGING.

THE BALANCED STUDENT IS ABLE TO PARTICIPATE ACTIVELY IN SCHOOL AND SOCIETY, BE CREATIVE, AND SELF-ADVOCATE WHILE DETERMINING HIS OR HER UNIQUE PATH TO FULFILLMENT.

Goal 1 – Ensuring the High Academic Achievement of All Students

ACTION ITEMS	DESCRIPTION	PROFESSIONAL ACTIVITIES	PERSON(S) RESPONSIBLE	IMPLEMENTATION TIMELINE	TARGET
1.1 Curricular Alignment	Learning goals and master curriculum maps aligned with the Massachusetts state frameworks will be developed for all courses and entered into the ATLAS curriculum database for ongoing use and revision.	Ongoing curriculum review and alignment across course sections in grade-level, intradepartmental teams during early release time, professional development meetings, and summer curriculum workshops.	Teachers, Program Directors, and Department Chairs	Fall 2012 – Spring 2016	By spring 2016, 100% of all courses with multiple sections in each department will have developed and mapped well defined and clearly articulated common curricula that are mapped to the Massachusetts Common Core Content and Literacy Standards.
		Ongoing curriculum alignment to the Massachusetts Common Core Content and Literacy Standards.	Teachers, Program Directors, and Department Chairs		
1.2 Expanding Options for Differentiated Instruction	NHS will offer differentiated instructional strategies and supports to ensure that <u>all</u> students are able to access the general curriculum and achieve at high levels.	Special Education A joint committee of NHS professionals will explore and develop options for adequate, high quality, and efficient service delivery models and overarching structure for special education services. Options include co-teaching, collaborative consultation, and other integrated instructional services.	Joint committee of special education professionals, general education professionals, and administrators.	Spring 2012 – Fall 2013	By the fall of 2013, NHS professionals will implement a co-teaching special education service delivery model in at least two content areas in the ninth grade.
		Online Learning A joint committee will investigate and recommend online learning options for NHS students as a means of mastering 21 st century skills, and as a means of ameliorating interrupted instruction.	Joint committee of Teachers, Administrators, and Technology Staff.	Spring 2012 - Fall 2014	By the fall of 2014, NHS will have developed and begun to implement an online learning curriculum for Transitions students.
		Interdisciplinary Learning With financial and professional support from the Needham Education Foundation, a team of NHS teachers will propose, research, develop, and ready an interdisciplinary course for implementation and inclusion in the <i>NHS Program of Studies</i> .	NEF Grant Subcommittee, NHS Selection Committee, NHS Interdisciplinary Development Team	Spring 2012 – Fall 2014	By the fall of 2014, NHS will have developed for inclusion in the <i>2014 Program of Studies</i> at least one interdisciplinary course.
1.3 Student Assessment	It is the goal of the Needham High School Professional Community to administer one common formative assessment per course per term.	Incorporation of school-wide rubrics into ATLAS master curriculum maps as a means of assessing student performance on key projects and assignments.	Teachers, Program Directors, and Department Chairs	Summer 2012 – Spring 2015	By spring 2015, 100% of school-wide rubrics will have been incorporated into NHS master curriculum maps, and will be utilized with fidelity across course sections and levels
		Inclusion of quarterly Common Formative Assessments in Curriculum Maps.	Teachers, Program Directors, and Department Chairs	Summer 2012 – Spring 2015	By spring 2015, 100% of common formative assessments for courses with multiple sections will be uploaded to the ATLAS curriculum database and implemented with fidelity on a quarterly basis.
		Use of Common Formative Assessment Data as a means of improving instructional practice and student learning.	Teachers, Program Directors, and Department Chairs	Summer 2012 – Spring 2016	By spring 2016, departments will have developed and implemented means of readily collecting, organizing, analyzing, and sharing assessment data derived from common formative assessments.
1.4 Building Capacity for Instructional Leadership	Having implemented and streamlined the process for non-evaluative classroom walkthroughs, the Principal's Cabinet will work to support and encourage voluntary teacher participation in interdepartmental instructional rounds.	Classroom teachers will be invited to take part in non-evaluative, interdepartmental instructional rounds and walkthroughs on a regular, voluntary basis. Requisite training will be provided.	Principal's Cabinet & Interdepartmental Groups of Classroom Teachers	Fall 2012 – Spring 2013	By the spring of 2013, classroom teachers will have been invited to take part in at least one session of instructional rounds. Requisite training will be provided.

Goal 2 – Developing the Social & Emotional Resilience of All Students

ACTION ITEM	DESCRIPTION	PROFESSIONAL ACTIVITIES	PERSON(S) RESPONSIBLE	IMPLEMENTATION TIMELINE	TARGET
2.1 Developing Student Resilience	The NHS Social Emotional Learning Committee, in conjunction with the Cabinet and Faculty Council will continue to refine and develop a resiliency-based curriculum. Teacher training will be accomplished through interdepartmental staff professional development	SEL Retreat, May 2012 & Summer 2012 & 2013 Curriculum Work	SEL Committee, Cabinet, & Faculty Council	Spring 2012 – Spring 2014	By the spring of 2014, NHS will have developed rubrics, indicators, and assessments for measuring the development of student resilience.
		Interdepartmental Faculty Meetings, School Council, & Cabinet Meetings.	Cabinet, Instructional Staff, and School Council		By the spring of 2014, the NHS instructional staff will implement the resilience curriculum and use rubrics and indicators to have students self-assess development of their own resilience.
2.2 Understanding and Applying the Tenets of Cultural Proficiency	As a follow up to District Leadership Team work during the 2011 – 2School Year, over the next three years, the NHS community will work to understand the tenets of Cultural Proficiency, and will apply these principles to all aspects of professional and student life at Needham High, including student resiliency development, classroom instruction, curriculum, and policy development.	During its 2012 Summer Retreat, the Principal's Cabinet will work with outside consultants to chart an action plan for understanding and developing the Cultural Proficiency of the Needham High School community.	Principal, Department Chairs, Directors, and outside consultants.	Spring 2012 – Fall 2012	By the fall of 2012, the Cabinet will have developed a Cultural Proficiency professional development action plan and begun to implement the plan in partnership with the SEL Committee and selected consultants.
		During SY 2012 – 2013, the NHS faculty as a whole and in interdepartmental teams of teachers will engage in facilitated meetings to share professional readings and to dialogue in support of Cultural Proficiency.	Principal's Cabinet & Instructional Staff	Fall 2013 – Spring 2014	By the spring of 2014, the instructional staff and administration will understand the tenets of Cultural Proficiency and will prepare to apply these concepts to all manner of school activities for SY 2012-2014.

Goal 3 – Practicing Operational Excellence in Support of High Quality Instruction

ACTION ITEM	DESCRIPTION	PROFESSIONAL ACTIVITIES	PERSON(S) RESPONSIBLE	IMPLEMENTATION TIMELINE	TARGET
3.1 Utilize Technology to Promote Instructional & Managerial Efficiency	School and district instructional technology staff will work to facilitate ongoing professional development in line with the NHS capital technology replacement cycle, the NPS one-to-one iPad initiative, and online learning opportunities in order to maximize student learning, instructional space, and operational efficiency.	A Technology Committee of teachers, technology and administrative support staff, and administrators, will work with the NPS Director of Technology and Innovation to plan training for and surface issues resulting from the NHS Technology Replacement Cycle and other technological initiatives.	Principal, Director of Technology and Innovation, Technology Committee	Spring 2013 – Spring 2017	By the end of the 2017 academic year, staff will have been trained in new technologies and resulting from the NHS Technology Replacement Cycle and other technology initiatives.
3.2 Ensure a Sustainable and Effective Administrative Support Model	Review the impact of reductions of administrative support staff during the 2009-2012 academic years in a climate of increasing student enrollment. Reorganize and implement model to maximize the skills and talents of the support staff while requesting increases in instructional staff as necessary.	Data collection and analysis to support budget and personnel requests during the FY 2014, 2015, and 2016 budget cycles. Ongoing professional development and training for new and veteran support staff.	Principal, Cabinet, Support Staff, Central Office Team	Ongoing through June 2016	By the spring of 2016, all academic and support departments will have adequate book keeping and clerical support.
3.3 Identify and Maximize Instructional Space	The NHS Administrative staff will work in conjunction with the Public Facilities Department and the instructional staff to identify, assess, and remodel/reconfigure spaces for instructional use given increased student enrollment projections.	N/A	Principal, Cabinet, Director of Needham Public Facilities	Ongoing through June 2016	By the spring of 2016, the administration of NHS will have identified and reconfigured all possible and appropriate spaces for instructional use.

Group Membership

School Council SY 2011 - 2012

Scott Butchart, Parent 2014

Hans Batra, Math Department Faculty

Emma Castiglia, Class of 2012

Maureen Chamoun, Parent 2013

Mike Hirsh, Science Department Faculty

Kelly Luce, Parent 2013

Karen Mullen, Parent 2014

Danielle Penny, Class of 2012, Co-Chair

Jonathan Pizzi, Principal, Co-Chair

Ashwin Skelly, Class of 2013

Doug Stanczak, History Department Faculty

Dianne Yearwood, Guidance and Clinical Faculty

Principal's Cabinet

Joanne Allen Willoughby, Ph.D.
K-12 Director, METCO

Christopher Ashley
Administrative Intern

Jonathan Bourn
Assistant Principal

Alison Coubrough Argentieri
Assistant Principal

Tom Denton
K-12 Director, Guidance

Patrick Gallagher
English Department Chair

Deb Gammernan
K-12 Director, Technology & Innovation

Micah Hauben
6-12 Director, Athletics

Cathy Heller
9-12 Director, Student Support Services

Bob Lockhart
Chair, Science Department

David Neves, Ed.D.
K-12 Director, Fine & Performing Arts

Kathy Pinkham, Ed.D.
K-12 Director, Wellness & P.E.

Jonathan D. Pizzi, Ph.D.
Principal

Stephen Plasko
Social Studies Department Chair

Libby Sands
Administrative Intern

John Shea
Chair, Mathematics Department

Mimi Stamer
K-12 Director, Student Health Director

Debbie Watters
K-12 Director, World Languages

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: **Discussion**

Needham High School Achievement Report

Background Information:

- **Dr. Pizzi will share an update about testing data and student achievement from the 2010-2011 school year. Information about SAT and Advanced Placement exams will be included.**

Persons Available for Presentation:

Dr. Jonathan Pizzi, Needham High School Principal



NEEDHAM HIGH SCHOOL

TO THINK – TO RESPECT – TO COMMUNICATE

Jonathan D. Pizzi, Ph.D.
Principal

TO: Daniel Gutekanst, Superintendent.
FROM: Jonathan D. Pizzi, Principal
RE: NHS 2011 Achievement Report
DATE: February 29, 2012

Attached please find the Needham High School 2011 Achievement Report as prepared by the NHS Guidance Department. Within this report you will find summary data for student performance on Advanced Placement examinations, as well as the SAT I Reasoning Test and the SAT II Subject Area Tests. These College Board data span academic years 2007 through 2011, inclusive. Where applicable, data have been disaggregated by gender and are compared to mean student performance at the state and national levels.

Please note that 2011 comparison data for neighboring communities are not yet available from the DESE, and are therefore not included in this report. At your request, I can report these to you as soon as they are posted.

I look forward to presenting the highlights of these data to you and the School Committee on March 7. At that time my co-presenters and I can entertain any questions the Committee might have. Thank you for your consideration of this report, and please contact me should you have any questions or concerns.

NEEDHAM HIGH SCHOOL

TO THINK – TO RESPECT – TO COMMUNICATE



Student Achievement Report 2011

SAT I Reasoning Test
SAT II Subject Tests
Advanced Placement Tests

Section 1 – Introduction and Performance Summary

Introduction

This report summarizes Needham High School student performance on the SAT I Critical Reading, Mathematics, Writing exams; the SAT II Subject Tests; and the Advanced Placement (AP) examinations.

It is important to note that statistics provided for the SAT I and II exams apply only to the class of 2011. The report includes results for the last SAT I and II exams taken by members of the class of 2011 at any time during their high school careers, through April of 2011. This is a five-year report, inclusive of data spanning the 2005 through 2011 Academic Years.

In addition, the AP results provided reflect student performance on examinations that were administered in the spring of 2011. This test administration included students from the graduating class of 2011, as well as other classes.

Performance Summary Data

SAT I - Reasoning Test Summary

Annually more than 90% of the graduates of NHS take the SAT. The majority of graduates have taken the SAT more than once. Each year, the College Board's Educational Testing Service (ETS) provides NHS with an overall average student performance score for the previous year's graduating class. That score is calculated using the last SAT score taken by each student in the graduating class. This is statistically significant as nationally, nearly 66% of students who take the SAT I more than once receive their highest score on the first administration. In addition, during the admissions process, colleges and universities take into account each student's highest SAT I scores for each test.

To understand these average scores more in relation to the Class of 2011 overall performance, Table 1 provides an average of the highest Critical Reading, Math and Writing scores of the class of 2011 through the January, 2011 SAT administration, and sorts them by GPA range.

Table 1

Highest Average SAT I Scores Sorted by GPA, Class of 2011

GPA	Critical Reading	Mathematics	Writing	Average Composite Score
5.00-4.75	722	748	763	2233
4.74-4.50	707	713	723	2143
4.49-4.25	650	668	660	1978
4.24-4.00	626	631	629	1886
3.99-3.75	583	587	588	1758
3.74-3.50	573	569	564	1706
< 3.50	573	569	564	1706

When computing the average SAT I scores of a graduating class, the ETS includes only the last exams taken by the Class of 2011. According to these data, Needham High Student Critical Reading SAT average (592), Math SAT average (595), and Writing average (593) are significantly higher than the state and national average scores. When these averages are computed using the highest scores of

Needham high students, however, the mean scores increase significantly to 603 in Critical Reading, 608 in Mathematics, and 606 in Writing.

For the Needham High Class of 2011, on average, female students earned higher scores on the SAT I Writing examination. However, male students tended to score higher than female students on the Critical Reading and Math sections. These patterns are consistent with scoring trends at the state and national levels.

Table 2
Mean SAT I Scores by Gender, NHS Class of 2011

Gender	Critical Reading	Mathematics	Writing	Composite
Female	591	580	606	1777
Male	594	613	578	1785

SAT II Subject Test Summary

Nationally, only 18% of students who sat for the SAT I also took one or more SAT II Subject Tests. These students are concentrated in the most competitive public and private secondary schools in the United States. At Needham High School, 53% of the class of 2011 took at least one SAT II Subject Test. No results are provided in this report for Subject Tests involving fewer than 20 students.

Needham scored above both the state and national averages on many SAT II Subject tests, including: Literature; U.S. History; Math1; Math 2; Physics; and Biology. Needham High students scored below state and national averages on Chemistry.

In general, Needham students who take a Subject Test have higher SAT I averages than those who do not. While this readily reflects performance trends at the state and national levels, as represented in Table 3 below, Needham students scoring significantly higher than their counterparts both nationally and at the state level.

Table 3
Mean SAT I Scores for Students Taking One or More SAT II Exams

SAT I Section	Needham	State	National
Critical Reading	648	611	590
Mathematics	654	633	624
Writing	654	615	597
Composite	1956	1859	1811

Advanced Placement Performance Summary

In the spring of 2011, 245 Needham High students took 441 Advanced Placement tests. Ninety-four percent (93.9%) of the scores were 3 or better. Eighty percent (79.6%) of the scores were 4's and 5's. The National rate for scoring 3 or better this year was sixty percent (60.2%).

Section II – Data Reports & Interpretation

SAT I Data Reports 2007 - 2011

Table 4

Mean SAT I Critical Reading Scores Comparisons

<u>Class</u>	<u>Needham</u>	<u>National</u>	<u>Massachusetts</u>
2011	592	497	513
2010	588	501	512
2009	590	501	514
2008	581	502	514
2007	577	502	513

While showing an overall upward trend over the past five years, the Needham High mean SAT I Critical Reading score continues to be significantly higher than both the Massachusetts and national averages.

Table 5

Mean SAT I Mathematics Scores Comparisons

<u>Class</u>	<u>Needham</u>	<u>National</u>	<u>Massachusetts</u>
2011	595	514	527
2010	601	516	526
2009	598	515	526
2008	591	515	525
2007	578	515	522

While showing an overall upward trend over the past five years, the Needham High mean SAT I Mathematics score continues to be significantly higher than both the Massachusetts and national averages.

Table 6
Mean SAT I Writing Score Comparisons

<u>Class</u>	<u>Needham</u>	<u>National</u>	<u>Massachusetts</u>
2011	593	489	509
2010	593	497	509
2009	584	493	510
2008	594	494	513
2007	576	494	511

While showing an overall upward trend over the past five years, the Needham High mean SAT I writing score continues to be significantly higher than both the Massachusetts and national averages.

SAT I Gender Comparisons

The figures listed below represent the mean scores of the most recent SAT taken by members of the classes of 2007 - 2011 from the time they were sophomores through April of their senior year. A comparison of the differences between the Needham schools and the other two groups is represented by the figures in parenthesis. A minus equals the number below the mean of either the National or Massachusetts group, and a plus equals the number of the Needham mean above either of the other groups.

SAT – Class of 2011

	<u>Critical Reading</u>			<u>Mathematics</u>			<u>Writing</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
(Needham)	594	591	592	613	580	595	578	606	593
(National)	500(+94)	495(+96)	497(+95)	531(+82)	500(+80)	514(+81)	482(+96)	496(+110)	489(+104)
(Mass)	518(+76)	509(+82)	513(+79)	544(+69)	512(+68)	527(+68)	502(+76)	514(+92)	509(+84)

SAT I - Class of 2010

	<u>Critical Reading</u>			<u>Mathematics</u>			<u>Writing</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
(Needham)	582	595	588	600	601	601	581	608	593
(National)	503(+79)	498(+97)	501(+87)	534(+66)	500(+101)	516(+85)	486(+95)	498(+110)	492(+101)
(Mass)	516(+66)	509(+80)	512(+76)	545(+55)	510(+91)	526(+75)	503(+78)	515(+93)	509(+84)

SAT - Class of 2009

	<u>Critical Reading</u>			<u>Mathematics</u>			<u>Writing</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
(Needham)	611	566	590	623	568	598	586	581	584
(National)	503(+108)	498(+68)	501(+89)	534(+89)	499(+69)	515(+83)	486(+100)	499(+82)	493(+91)
(Mass)	517(+ 94)	511(+55)	514(+76)	543(+80)	510(+58)	526(+72)	504(+ 82)	516(+65)	510(+74)

SAT - Class of 2008

	<u>Critical Reading</u>			<u>Mathematics</u>			<u>Writing</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
(Needham)	589	574	581	616	568	591	593	595	594
(National)	504(+85)	500(+74)	502	533(+83)	500(+68)	515(+76)	488(+105)	501(+94)	494(+100)
(Mass)	517(+72)	510(+64)	514	544(+72)	508(+60)	525(+66)	507(+ 86)	518(+77)	513(+81)

SAT - Class of 2007

	<u>Critical Reading</u>			<u>Mathematics</u>			<u>Writing</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
(Needham)	583	570	577	599	554	591	578	574	576
(National)	504(+79)	502(+68)	502	533(+66)	499(+55)	515	489(+89)	500(+74)	494(+82)
(Mass)	515(+67)	511(+59)	513	541(+58)	506(+48)	522	507(+ 71)	515(+59)	511(+65)

SAT I Participation Statistics

These statistics illustrate the five-year trend of the number of Needham High School graduates compared to the number who participate in the SAT I examinations.

<u>Year</u>	<u>Graduates in Senior Class</u>	<u>Number Taking SAT</u>	<u>Percent</u>
2011	367	322*	88
2010	365	343*	94
2009	304	279*	92
2008	343	350*	100
2007	332	338*	100
2006	320	321*	100

SAT II Data reports, 2007-2011

SAT II Subject Test Five Year Participation Statistics

These data represent the five-year trend of Needham High School students who participate in the SAT II Subject test examinations.

<u>Year</u>	<u>Graduates in Senior Class</u>	<u>Number Taking at Least One Subject Test</u>	<u>Percent</u>
2011	367	176	48
2010	365	190	52
2009	304	157	52
2008	343	174	51
2007	332	175	53
2006	320	173	54

**A discrepancy in numbers between graduates and number taking SAT or Subject Tests occurs for various reasons. The report provided by ETS includes students who moved out of Needham after grade 11, were exchange students and returned to their native country, or who did not graduate with their class for other reasons.*

SAT II Mean Score Comparisons

The figures listed below represent the mean scores of the most recent Subject Tests taken by members of the classes of 2007-2011 from the time they entered high school through March of their senior year. Listing Subject Test results in this report for exams involving less than 20 students is being discontinued.

The numbers within the brackets [] next to Needham denote the number of students taking the test. All other () parentheses indicate the following:

- (+) Equals the number of points above the National and Massachusetts figures.
- (-) Equals the number of points below the National and Massachusetts figures.
- (0) Equals no difference between the Needham and the National or Massachusetts figures.

	<u>Class of 2011</u>					
	<u>Literature</u>	<u>U.S. History</u>	<u>Math 1</u>	<u>Math 2</u>	<u>Biology M</u>	<u>Chemistry</u>
Needham	630 [565]	661 [89]	635 [70]	712[89]	691[33]	632[27]
Massachusetts	607(+27)	634(+27)	609(+26)	678(+34)	646(+45)	643(-11)
National	576(+54)	608 (+53)	610(+25)	654(+58)	635(+56)	648(-16)

Physics

Needham	679[30]
Massachusetts	651(+28)
National	656(+23)

Class of 2010

	<u>Literature</u>	<u>U.S. Hist.</u>	<u>Math I</u>	<u>Math II</u>
Needham	636[62]	644[92]	629[104]	685[83]
Massachusetts	607(+29)	627(+17)	608(+21)	673(+12)
National	580(+56)	601(+43)	599(+24)	649(+54)
	<u>Bio. M.</u>	<u>Physics</u>	<u>Chemistry</u>	<u>Spanish</u>
Needham	609[28]	607[32]	601[20]	580[22]
Massachusetts	624(-15)	649(-42)	642(-41)	610(-30)
National	601(+8)	658(-51)	644(-43)	644(-64)

Class of 2009

	<u>Literature</u>	<u>U.S. Hist.</u>	<u>Math I</u>	<u>Math II</u>
Needham	650[46]	667[99]	623[77]	702[80]
Massachusetts	611(+39)	635(+32)	606(+17)	680(+22)
National	580(+70)	599(+68)	599(+24)	648(+54)
	<u>Bio. M.</u>	<u>Physics</u>	<u>Chemistry</u>	
Needham	629[33]	658[26]	650[28]	
Massachusetts	649(-20)	652(+6)	639(+11)	
National	641(-12)	655(+3)	638(+12)	

Class of 2008

	<u>Literature</u>	<u>U.S. Hist.</u>	<u>Math I</u>	<u>Math II</u>	<u>Bio. E.</u>
Needham	630[75]	662[90]	618[65]	697[85]	581[20]

Massachusetts	610(+20)	627(+35)	609(+9)	677(+20)	617(-36)
National	580(+50)	597(+65)	599(+19)	644(+53)	593(-12)

Bio. M. **Chemistry**

Needham	609[47]	603[27]
Massachusetts	638(-29)	636(-33)
National	630(-21)	635(-32)

Class of 2007

Literature **U.S.Hist.** **World History** **Math 1** **Math 2**

Needham	635[63]	673[91]	611[26]	605[68]	691[73]
Massachusetts	608(+27)	613(+60)	612(-1)	607(-2)	670(+21)
National	581(+54)	588(+85)	589(+22)	596(+9)	639(+52)

Bio. M. **Physics** **Spanish**

Needham	631[34]	653[24]	574[20]
Massachusetts	634(-3)	651(+2)	614(-40)
National	630(+1)	647(+6)	632(-58)

** Subject Tests involving fewer than 20 students are not reported. Beginning in 2006, the Writing Subject Test became part of the SAT Reasoning Test. Also in 2006, Math 1C and 2C were renamed Math 1 and Math 2.*

Advanced Placement Examination Data, 2007-2011

Advanced Placement Test Totals by Discipline

Examination	Year				
	2011	2010	2009	2008	2007
Biology	23	29	24	30	27
Calculus AB	53	83	47	61	58
Calculus BC	39	29	29	36	19
Chemistry	12	13	20	10	5
Chinese Language	3	-	2	4	
Computer Science A	-	-	1	-	
Computer Science AB	-	-	5	12	4

Economics: Macro	-	1	-	-	-
Economics: Micro	-	1	-	-	-
English Language & Composition	18	17	19	8	18
English Literature & Composition	33	34	30	39	29
Environmental Science	4	11	-	-	-
French Language	6	13	11	8	8
German	-	-	1	-	1
Japanese Language	1	-	-	-	-
Music Theory	5	8	6	5	-
Physics B	1	-	-	-	-
Physics C: Mechanics	20	23	20	14	15
Physics C: Elec. & Mag.	18	20	19	10	9
Psychology	2	1	-	-	-
Spanish Language	30	41	18	23	29
Statistics	53	50	40	28	46
Studio Art Drawing	19	9	9	18	26
Studio Art 2D/3D	2	12	20	8	1
U.S. Government & Politics	41	63	48	36	44
U.S. History	58	54	63	57	58
Total Grades Reported	441	512	432	407	399
Total Number of Candidates	245	277	240	238	229

Advanced Placement Examination 2011 Score Summary

Examination	Score				
	5	4	3	2	1
Biology	14	4	4	1	
Calculus AB	31	13	8		1
Calculus BC	35	2	2		
Chemistry	2	5	3	1	1
Chinese Language & Culture	2	1			
English Language & Composition	12	5	1		
English Literature & Composition	23	10			
Environmental Science		2			2
French Language		2	3	1	
Japanese Language	1				
Music Theory	2	2	1		
Physics B		1			
Physics C: Mechanics	9	8	3		
Physics C: Elec. & Mag.	5	9	3	1	
Psychology	1		1		
Spanish Language	11	13	5	1	
Statistics	12	16	18	7	
Studio Art Drawing	8	9	2		
Studio Art 2D	1	1			
U.S. Government & Politics	18	5	13	4	1
U.S. History	47	9	2		
Total Grades Reported 441	234	117	69	16	5
Total Number of Candidates 245					

Key
5 - Extremely well qualified
4 - Well qualified
3 - Qualified
2 - Possibly Qualified
1 - Not qualified

*Note: Scores of 3, 4, or 5 may
qualify for college credit.*

Percentage of NHS Students Earning a Qualifying Score of 3 or Greater

National percentage of qualifying in parentheses ().

Examination	Year				
	2011	2010	2009	2008	2007
BIOLOGY	96(51)	93(49)	46(51)	87(50)	96(61)
CALCULUS AB	98(56)	90(56)	98(60)	92(61)	86(59)
CALCULUS BC	100(80)	100(83)	100(80)	100(80)	100(80)
CHEMISTRY	83(55)	77(55)	85(56)	90(56)	100(56)
CHINESE	100(95)	-	100(97)	100(98)	
COMPUTER SCIENCE A	-	-	100(62)	-	-
COMPUTER SCIENCE AB	-		80(76)	100(73)	100(71)
ECON:MACRO	-	100(56)			
ECON:MICRO	-	100(64)	-	-	100(55)
ENG LANG/COMP	100(61)	100(61)	100(60)	100(58)	100(59)
ENG LIT & COMP	100(57)	100(57)	100(59)	97(60)	100(61)
ENVIRONMENTAL SCIENCE	50(49)	91(50)		-	-
FRENCH LANGUAGE	83(58)	100(55)	55(56)	87(58)	75(60)
GERMAN	-	-	100(69)	-	100(67)
JAPANESE LANG. & CULT.	100(76)	-	-	-	-
MUSIC THEORY	100(59)	75(61)	33(NA)	100(68)	-
PHYSICS B	100(61)	-	-	-	-
PHYSICS C:MECHANICS	100(73)	91(73)	100(70)	100(74)	93(72)
PHYSICS C:ELEC&MAG	94(71)	80(70)	79(72)	100(70)	67(72)
PSYCHOLOGY	100(66)	0(66)	-	-	
SPANISH LANGUAGE	97(68)	73(72)	72(70)	87(69)	93(65)
STATISTICS	87(59)	92(59)	95(59)	86(59)	83(59)
STUDIO ART DRAWING	100(71)	100(73)	100(69)	100(68)	92(68)
STUDIO ART 2D/3D	100(72)	100(70)	100(NA)	87(68)	100(67)
U.S. GOV'T POL.	88(52)	94(51)	96(69)	86(51)	100(52)
US HISTORY	100(53)	98(53)	100(53)	100(48)	100(53)
TOTAL 3% OR HIGHER	94(60)	92(58)	91(59)	94(57)	93(59)
TOTAL NO. CANDIDATES	245	277	240	238	229

Key

5 - Extremely well qualified

4 - Well qualified

3 - Qualified

2 - Possibly Qualified

1 - Not qualified

***Note:** Scores of 3, 4, or 5 may qualify for college credit.*

AP Exam Results by Subject, 2007-2011***AP Calculus AB – 302 Students**

Year	5	4	3	2	1	Total			
2011	31	13	8	-	1	53			
2010	30	28	17	7	1	83			
2009	27	15	4	1	-	47			
2008	23	23	10	4	1	61			
2007	26	17	7	8	-	58	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	137	96	46	20	3	302	77%	92%	56-61%

AP U.S. History – 290 Students

Year	5	4	3	2	1	Total			
2011	47	9	2	-	-	58			
2010	39	9	5	1	-	54			
2009	38	17	8	-	-	63			
2008	39	16	2	-	-	57			
2007	44	12	1	1	-	58	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	207	63	18	2	0	290	93%	99%	48-53%

AP U.S. Government – 232 Students

Year	5	4	3	2	1	Total			
2011	18	5	13	4	1	41			
2010	27	16	16	3	1	63			
2009	26	13	7	1	1	48			
2008	17	8	7	4	-	36			
2007	21	17	6	-	-	44	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	109	59	49	12	3	232	72%	94%	51-69%

* No summary data are provided for any AP exam with fewer than 50 participants during this five-year time span.

AP Statistics – 217 Students

Year	5	4	3	2	1	Total			
2011	12	16	18	7	-	53			
2010	9	25	12	4	-	50			
2009	19	8	11	2	-	40			
2008	5	8	11	3	1	28			
2007	7	10	21	4	4	46	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	52	67	73	20	5	217	55%	88%	59%

AP English Literature & Composition – 165 Students

Year	5	4	3	2	1	Total			
2011	23	10	-	-	-	33			
2010	23	9	2	-	-	34			
2009	16	10	4	-	-	30			
2008	18	14	6	1	-	39			
2007	11	15	3	-	-	29	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	91	58	15	1	0	165	90%	99%	57-61%

AP Calculus BC - 152 Students

Year	5	4	3	2	1	Total			
2011	35	2	2	-	-	39			
2010	21	5	3	-	-	29			
2009	23	4	2	-	-	29			
2008	26	6	4	-	-	36			
2007	11	6	2	-	-	19	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	116	23	13	0	0	152	91%	100%	80-83

AP Spanish – 141 Students

Year	5	4	3	2	1	Total			
2011	11	13	5	1	-	30			
2010	9	10	11	11	-	41			
2009	3	8	2	4	1	18			
2008	9	8	3	2	1	23			
2007	11	12	4	2	-	29	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	43	51	25	20	2	141	67%	84%	65-72%

AP Biology – 133 Students

Year	5	4	3	2	1	Total			
2011	14	4	4	1	-	23			
2010	13	10	4	2	-	29			
2009	5	3	3	10	3	24			
2008	15	5	6	2	2	30			
2007	16	9	1	1	-	27	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	63	31	18	16	5	133	71%	84%	49-61%

AP Art (Drawing & 2D Design) – 125 Students

Year	5	4	3	2	1	Total			
2011	9	10	2	-	-	21			
2010	9	7	5	-	-	21			
2009	17	8	4	-	-	29			
2008	14	10	1	1	-	26			
2007	6	13	7	2	-	28	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	55	48	19	3	0	125	82%	98%	67-73%

AP Physics C: Mechanics – 92 Students

Year	5	4	3	2	1	Total			
2011	9	8	3	-	-	20			
2010	8	8	5	2	-	23			
2009	13	5	2	-	-	20			
2008	12	2	-	-	-	14			
2007	8	4	2	-	1	15	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	50	27	12	2	1	92	84%	97%	70-74%

AP English Language and Composition – 80 Students**

Year	5	4	3	2	1	Total			
2011	12	5	1	-	-	18			
2010	12	5	-	-	-	17			
2009	13	5	1	-	-	19			
2008	4	2	2	-	-	8			
2007	12	5	1	-	-	18	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	53	22	6	0	0	80	94%	100%	58-61%

** At many secondary schools, this AP exam is administered to juniors who then enroll in AP English Literature in grade 12. However, with rare exception, it has been taken NHS seniors in addition to AP Literature.

AP Physics C: Electricity & Magnetism – 76 Students

Year	5	4	3	2	1	Total			
2011	5	9	3	1	-	18			
2010	2	12	2	4	-	20			
2009	8	6	1	3	1	19			
2008	8	2	-	-	-	10			
2007	2	3	1	2	1	9	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	25	32	7	10	2	76	75%	84%	70-72%

AP Chemistry – 60 Students

Year	5	4	3	2	1	Total			
2011	2	5	3	1	1	12			
2010	-	5	5	2	1	13			
2009	5	4	8	2	1	20			
2008	4	3	2	1	-	10			
2007	1	2	2	-	-	5	NHS % 4 or 5	NHS % 3 or >	National % 3 or >
Total	12	19	20	6	3	60	52%	85%	55-56%

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: **Action**

Approve 2012-2013 Middle School Program of Studies

Action Recommended:

Upon recommendation of the Superintendent that the Needham School Committee approves the 2012-2013 Middle School Program of Studies as submitted.



Needham Public Schools

A school and community partnership that:
creates excited learners • demands excellence • fosters integrity

March 1, 2012

To: Dan Gutekanst, Superintendent

From: Lisa Chen, Pollard Principal

RE: Middle School Program of Studies 2012-2013

Since we first presented the Middle School Program of Studies to the School Committee in January 2012, we have made several additional modifications to the programming for grade seven and grade eight. Highlighted areas contained in the attached document will serve to easily identify those changes.

The fundamental purpose of these changes is to:

1. More clearly articulate the scope of the essential area programming apart from a particular schedule;
2. Incorporate a number of programmatic enhancements.

The chart on page ten is designed to provide an overview of essential area programming and the frequency with which each of those experiences occur throughout the middle school grades. It replaces a section of the program of studies that many people felt was difficult to understand.

Fundamental programmatic enhancements include:

1. The performing arts rotation in Grade 8 has additional offerings in Chinese Culture, Global Arts, and Computer Arts.
2. Computer Technology 8 has been eliminated and replaced with a focused effort on furthering the integration of technology more seamlessly into the classroom learning environment. The extension of the iPad pilot in Grade 8 next year made this change a logical step.
3. Engineering Design was moved out of the Performing Arts rotation in Grade 8 and replaced with Experiential Education so that all students are now able to experience the engineering program at that grade level.

I believe that these programmatic modifications will serve to further strengthen an already robust essential program at Pollard. Please let me know if you have any questions.

NEEDHAM PUBLIC SCHOOL

Needham, Massachusetts

PROGRAM OF STUDIES

GRADES 6 – 8

2012-2013

Dr. Dan Gutekanst
Superintendent of Schools

Dr. Terry Duggan
Director of Program Development & Implementation

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MIDDLE SCHOOL PROGRAM OF STUDIES

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MIDDLE SCHOOL STATEMENT OF PURPOSE

We dedicate ourselves to cultivating academic excellence,
civic responsibility and the personal growth of
each member of our community.

We Know:

Students enter middle school at a critical phase of their development. They experience rapid physiological and emotional changes, an emerging sense of self, and an increased need for self-assertion. Cognitively, middle school students move from concrete toward abstract thinking. Middle school students strive for self-acceptance and a sense of belonging which shapes their behavior and perceptions. Healthy connections with adults and peers are crucial. Adult recognition reinforces students' sense of worth and their ability to balance extreme and competing developmental needs.

We Believe:

- All students can learn and it happens at varying rates through multiple learning styles.
- Active learning requires taking risks, and mistakes are valuable for learning.
- Learning through a broad-based curriculum and exposure to different perspectives are integral to educating the whole child.
- Learners should feel safe, cared for, and valued.
- Learning requires a partnership between school, home, and the community.

We Work To Provide:

- A student-centered curriculum that is experiential, interdisciplinary, and exploratory.
- A staff that plays multiple roles in fostering student growth as they impart knowledge, serve as role models, and respond to each individual's needs.
- A middle school environment that stresses civic and global awareness and each student's role as a member of a family, a community, and society at large.

We Strive To Develop:

- Creative and critical thinkers.
- Confident and open-minded risk takers.
- Responsible and thoughtful decision-makers.
- Articulate and reflective communicators.
- Collaborative and socially conscious contributors to the community.

Middle School Cluster Model

At High Rock and Pollard we value the National Middle School Association's ideal of developing and sustaining a middle level program that embodies interdisciplinary teaming, advisory, varied instruction, exploratory programs and transitional activities. The current design of interdisciplinary teams in our middle level program is referred to as our "cluster model." The environment of a cluster assists in supporting the transition of students from an elementary school model to their high school experience. Clusters create smaller schools or "family units" within our larger school community and support students in their cognitive, social & emotional development. Having this team of teachers working with the same group of students provides flexibility in order to schedule a variety of curriculum needs and foster programs of interdisciplinary study.

Currently both High Rock and Pollard have clusters comprised of core subject teachers who represent the following disciplines: English Language Arts, mathematics, science & social studies. Students also are exposed to a rich exploratory experience throughout the year as they take part in coursework that is "off cluster" during the school day. On a trimester basis, enrichment classes are offered to students. These classes fall under the departments of fine & performing arts, technology, library & media, world language, and wellness. A typical middle level daily course experience for a Needham student is as follows:

Advisory
English
Math
Science
Social Studies
Enrichment 1
Enrichment 2

Clusters are developed in order to have heterogeneous classes that maximize the educational possibilities for all children. Our primary goal is to create balanced classes in terms of gender, academic strengths, social maturity, ethnicity, special needs and supportive peer groups that are likely to promote healthy and productive learning environments.

MIDDLE SCHOOL PROGRAM OVERVIEW

The middle school program has been developed with the understanding that the young adolescent is at a critical phase in their personal and social development. Given that students will face a rapidly changing world there is a core belief that students require a rigorous program that has a broad-based curriculum, which is experiential, interdisciplinary and exploratory in nature. As a result, the program at the middle school level in Needham is comprehensive and it is expected that students, with few exceptions, will take all courses represented at each grade level outlined below.

DEPARTMENT OVERVIEW

ENGLISH LANGUAGE ARTS

Through a wide variety of classroom learning experiences which are largely literature based, our goal is to teach children how to fully comprehend and respond to what they read and teach them how to use the English language most effectively in their writing and speaking. This program has two components, 1) the language arts component which emphasizes writing; 2) the second in reading and literature.

The English curriculum draws on the four main literary genres: fiction, nonfiction, poetry, and drama. Selected age-appropriate readings within these genres are meant to expose students to a vibrant cross-section of viewpoints, cultures, and communities from around the world, past and present, and to foster an appreciation of this diversity.

Along with gaining skills in comprehending text on a factual level, students also learn how to think critically while they read and are given the tools to respond analytically and personally. These responses include small group and whole-class discussions, written responses, and projects that tap students' strengths in visual and performing arts. Students are also encouraged to read independently outside of what is required in school by teachers who model for children a love of reading as a lifelong habit of mind.

In all three grades, emphasis is placed on using the five-step writing process (prewriting or brainstorming, drafting, revising, editing, and publishing) to meet success in conveying ideas on paper. Students will increasingly learn how to adapt the writing process to fit the demands of individual assignments and shape their writing to satisfy specific purposes and audiences.

Generally, writing assignments ask students to: provide information or explain what something is about (expository); tell a story (narrative); describe a place or person (descriptive); persuade others to understand and accept your point of view (persuasive); express thoughts and feelings and create fictional worlds (expressive). In all the writing they do, students are encouraged to develop their own individual voices and styles.

FINE AND PERFORMING ARTS

VISUAL ARTS

Visual Arts is one of the Fine and Performing Arts, which are part of our nation's Academic Core for all students. Our hands-on visual arts program captures the imagination, energy, and creativity of the students, while building a variety of skills. We have four distinct goals:

- To build upon and add a layer of complexity to student's knowledge of art elements, principles, and techniques.
- To develop student's critical and creative thinking skills through the process of making art (creating the idea, problem-solving, analyzing, evaluating, etc.).
- To develop intra and interpersonal skills through both independent and cooperative learning (including the ability to challenge themselves and explore new possibilities).
- To connect the visual arts to life outside the classroom using art and cultural history, current events, etc.

PERFORMING ARTS

Music and Theater are part of the Performing Arts, which are part of our nation's Academic Core for all students. The Theater classes offer students an opportunity for individual and group expression through dramatic presentations. The music program offers the middle school student opportunities in three distinct areas: music performance, music theory/skills, and musical self-expression.

Music Performance: Our vocal and instrumental ensembles, through performance, provide an opportunity for group expression, high-level artistic thinking, and musical skill development. The Performing Groups (Chorus, Concert Band, String Ensemble) meet throughout the school year. All Performing Groups participate in at least two public concerts each year.

Music Theory/Skills: Our Music Exploration Course provides an opportunity for students to explore how music interacts with cultures, both their own, and cultures throughout the world. In addition, the impact of today's technology on music is explored in conjunction with the fundamentals of music.

Theater Musical Arts: This class provides opportunities for students to explore the world of musical drama and to develop and reinforce acting and theatrical production skills needed to express themselves via the stage.

A Special Note: After School Select Performing Groups

The following performing groups are open to sixth, seventh, and eighth grade students by audition. All rehearse afternoons, outside of the regular school day. Participating students must be members in good standing in the corresponding school ensembles or receive permission from the Fine & Performing Arts Director.

Treble Choir: This performing group is composed of students selected by audition from the sixth, seventh, and eighth grade choruses. Treble Choir rehearses two afternoons per week at Pollard. All Treble Choir members need to commit to a minimum of two afternoons to be in the group. Some additional rehearsals may be added as the concerts approach. The Treble Choir performs for professional and community organizations, and regional festivals. Interested students are strongly encouraged to consider studying voice privately, though it is not required. There is a small participation fee required for Treble Choir. Any family with financial concerns should contact the Fine and Performing Arts Director.

Jazz Ensemble: This performing group consists of students selected by audition from the sixth, seventh and eighth grade bands. Students study and perform multiple styles of jazz and popular music. The Jazz Ensemble performs at school events, and a variety of community and state events. Instrumentation includes saxophones, trumpets, trombones, drum set, guitar, bass, piano, and other instruments at the discretion of the director. The Jazz Ensemble meets two afternoons a week at Pollard. All accepted students must be in Concert Band preferably, or one of the other daytime performing groups, if the student is skilled and dedicated enough to manage both ensembles. Interested students are strongly encouraged to be studying their instrument privately, though it is not required. There is a small participation fee required for Jazz Ensemble. Any family with financial concerns should contact the Fine and Performing Arts Director.

Town Orchestra: This performing group consists of string players from grades 5-8 who are selected by audition. Accepted students must be members of the sixth, seventh or eighth grade String Ensembles, or one of the daytime performing ensembles, if the student is skilled and dedicated enough to manage both ensembles. The Town Orchestra performs in numerous school concerts, in addition to community and regional events. Town Orchestra meets one afternoon per week at Pollard. Interested students are strongly encouraged to be studying their instrument privately, though it is not required. There is a small participation fee required. Any family with financial concerns should contact the Fine and Performing Arts Director.

Wind Ensemble: This performing group consists of wind and percussion players from grades 6-8 who are selected by audition. Accepted students must be members of the sixth, seventh, or eighth grade concert bands, or one of the other daytime performing ensembles, if the student is skilled and dedicated enough to manage both ensembles. The Wind Ensemble rehearses one afternoon per week at Pollard and performs at a variety of concerts each year, including participation in the state concert band festival (MICCA). Interested students are strongly encouraged to be studying their instrument privately, though it is not required. There is a small participation fee required. Any family with financial concerns should contact the Fine and Performing Arts Director.

FOREIGN LANGUAGE

The middle school has historically offered instruction in French and Spanish and will continue to do so. For the 2012/2013 school year we are hoping to add Mandarin in 8th grade. There are many factors affecting our ability to do so, and we should know by the end of May if the course will run. If the course does not run, those students will remain in their study of French or Spanish.

All languages at the middle school are taught with an emphasis on the ability to communicate. Students entering middle school in Grade 6 select the language they will study for their time at the middle school. The curriculum focuses on language functions – what do you know and are able to do – and is based on the state frameworks and national foreign language proficiency guidelines. The students are also learning about the culture and history of countries where those languages are spoken, and making connections to the world around them. At each grade level, students develop their four basic language skills – speaking, listening, reading, and writing – and use audio, video, and Internet resources to build their skills.

MATHEMATICS

The Mathematics Department aspires to equip students with the skills necessary to:

- value mathematics and recognize its importance in real-life.
- demonstrate confidence in their mathematical abilities.
- develop into enthusiastic mathematical problem solvers.
- communicate mathematically both in writing and verbally.
- reason mathematically.

The overarching goal of the Mathematics program is to provide a sequential transition between the basic arithmetic, geometric, statistical, and problem solving skills studied in the elementary grades to the advanced mathematical skills of algebra, geometry, analysis, calculus, and statistics taught at the high school. The study of Pre-Algebra and Algebra at the middle level prepares students for a successful transition to high school mathematics.

Students begin their study of mathematics in Grade 6 in an unlevelled classroom. In this transitional year, all students review and extend the mathematical concepts introduced in Grades K to 5. Students demonstrate the necessary mastery of skills and knowledge that are essential for success in the subsequent years at the middle school. Mathematics 6 begins the transition from concrete learning to the learning of abstract concepts.

Following Grade 6, the middle school mathematics sequence in Needham has two paths, with both leading to a college preparatory sequence at the high school. Students who demonstrated mastery of Mathematics 6 and exhibit excellent study habits will enroll in Pre-Algebra A in Grade 7. Those students who have not yet mastered the essential skills and concepts of Mathematics 6 will enroll in Pre-Algebra B in Grade 7. Pre-Algebra B further develops the foundation of mathematical knowledge needed for success in later math courses.

In Grade 8, successful students from Grade 7 Pre-Algebra A will continue with Algebra A. Students who studied Pre-Algebra B in Grade 7 will continue with Algebra B. Algebra B covers the same topics as Algebra A, but emphasizes the most fundamental concepts and algebraic skills necessary for future success in secondary school mathematics. Cross-cluster grouping may occur, specifically after completing or preassessing students on a unit; in these cases, students will be divided based on their understanding of the material and readiness to apply the information. Whenever possible, the middle school teachers attempt to integrate the mathematics curriculum with other disciplines. This integration demonstrates to the students that all subjects are connected and not just separate entities. In these units, students take knowledge learned in one subject and apply it to situations in other classes. The skills of analysis, synthesis, and generalization are the expected outcomes.

Calculators are an essential part of the middle school mathematics program. Students will use calculators to study certain mathematical topics where tedious computation detracts from the learning of concepts and development of problem solving strategies. Calculators will not be used for all units. Mathematical competency should not be dependent upon the use of a calculator.

MEDIA AND TECHNOLOGY

Media instruction and information skills are integrated into project based learning experiences that occur in Science, Social Studies, Language Arts, Health and Art classes. The library media specialist collaborates with teachers to integrate these skills while curriculum topics are being studied. Students work in the Media Center to gather, organize, evaluate, and use information from a broad range of print and electronic sources.

Technology instruction occurs in two ways. The technology integration specialist collaborates with teachers to help students use educational software and tools to produce effective presentations and collaborative projects. Students also receive direct technology instruction through the required Computer Technology courses. Technology instruction is part of a K-12 sequence of skill development. Through integrated and direct instruction, students expand their knowledge and use of various technology tools.

SCIENCE

Earth, Life, and Physical Sciences, as well as Technology principles, are continually integrated throughout sixth, seventh, and eighth grades. An emphasis is placed on relating the various principles and concepts to real life and multicultural experiences. Various teaching strategies such as hands-on laboratory activities, interdisciplinary lessons, differentiated learning techniques, team teaching, and student presentations are used. Development of reading, writing, problem solving, laboratory techniques, and study skills are important objectives of the science program. The integrated, spiraled approach of the curriculum insures that students develop a strong science foundation.

SOCIAL STUDIES

Now, more than ever, social studies is a key component of a child's education. In order to understand events in the world and to participate in a democratic society, children need to build their knowledge of public policy and the complex interactions of individuals, governments and nations.

We aspire to equip children with some knowledge of history so that they can begin to understand the multiple reasons why events unfold as they do and that the future is a result of the past. Knowledge of governments, past and present, help students understand how people organize themselves in different ways. Experience with the viewpoints of diverse cultures and individuals challenge students and teachers alike to examine our own opinions and approaches to living. Of course, without attention to essential skills such as geography and research, social studies fluency cannot be achieved. We also dedicate ourselves to providing important experiences in areas such as teamwork and public speaking and providing opportunities for students to explore current events.

WELLNESS

Health, Physical Education, and Experiential Education make up the middle school portion of our K-12 comprehensive wellness program. Although each course is taught separately, they each incorporate a multidimensional approach to understanding human health and well being. In its unique way, each course contributes to each student's ongoing development of skills, knowledge, and attitudes needed to participate in an active healthy lifestyle. The wellness curriculum emphasizes each student's responsibility for his or her own health and wellbeing based on a six-dimensional wellness model (social, emotional, physical, intellectual, spiritual, and environmental). The middle school wellness program builds upon the knowledge, skills and behaviors learned and practiced in grades K-5, and is valuable in preparing middle school students for their high school experience.

OVERVIEW OF THE PROGRAM

Grades Six to Eight

Students in each grade will receive instruction in the four (4) core subjects every day, which include English Language Arts (E.L.A.), Mathematics, Science and Social Studies. In addition to the study in these core subjects, over the nine trimesters of the middle school experience, students will participate in the following courses for the indicated number of trimesters:

Grade 6		Grade 7 & 8	
Physical Education	3	Physical Education	5
Health	1	Health	2
World Language	3	World Language	6
Visual Art	1	Visual Art	2
Computer Technology	1	Computer Technology	1
Reading for Research	1	Engineering	2
Options		Options	
Performing Arts Rotation 6 (Band/Strings) OR Rotation of Chorus/General Music 6	3 3	Performing Arts Rotation 7 (Band/Strings/Chorus) OR Music Explorations 7 Ceramics-Sculpture 7 Experiential Education 7 Performing Arts Rotation 8 (Band/Strings/Chorus) OR Ceramics-Sculpture 8 Chinese Culture 8 Global Art 8 Computer Art 8 Experiential Education 8 Theater Musical Arts 8	3 1 1 1 3 1 1 1 1 1 1

Pollard Middle School: Community Service Learning Project

Overview:

Grade 8 students at Pollard Middle School participate in a Community Service Learning (CSL) Program. The program is implemented over the course of the eighth grade year and requires students to complete a CSL Portfolio based on research, active community service, reflection, and writing. The goal is to reinforce for students the importance of being active, responsible citizens who commit time and energy to “help make our world a better place.”

Goals of The CSL Project:

Research indicates that if students are involved in their learning in a hands-on way, they are likely to get more out of these learning experiences and feel that their efforts can and do make a difference. We hope that through this program students will be inspired to become involved with human and animal rights issues in our community and the larger society, both now and in the future.

Scope of The Project:

Students are exposed to service work on a local, national or international level. They consider areas of personal interest in the realm of humanitarian and social justice work, and select a specific social issue and an organization or project in which to base their service work. Students select community organizations in and outside of Needham as sites for their service projects. They have a wide range of choices for their service and we encourage our parents/guardians to participate in the selection process so that both the child and the parent can be informed and comfortable with the project selected.

The project consists of the following steps:

- Brainstorm and discuss social issues.
- Consider personal and academic interests related to service learning.
- Research the social issue selected for service work.
- Select an organization to which students can contribute a minimum of six hours of service.
- Develop an action plan for service learning.
- Reflect on the value of their contributions, learning, and personal growth through the project and experience.
- Produce a portfolio that demonstrates the learning embedded in this work.

Expectations of Student Involvement:

We expect that students will perform a minimum of six (6) hours of service. Students earn a grade for this work that appears as a separate item on their third term report card. Full participation in our end-of-year social activities is contingent on the participation in this CSL Program.

COURSE DESCRIPTIONS

ENGLISH LANGUAGE ARTS

ENGLISH LANGUAGE ARTS 6

This program has two parts: 1) the language arts component emphasizing writing; 2) the reading/literature segment. The language arts component includes development of reading, observing, listening, and speaking skills. The process of writing, which includes drafting, revising, and proofreading, is emphasized. A chronology of a student's work is maintained in a writing folder that enables students with the teacher to monitor progress through the year. Grammar and usage, punctuation and capitalization, spelling, and vocabulary are developed through the student's own writing as well as through direct instruction. The reading/literature component employs core novels and short stories appropriate to sixth grade as well as literature circle books to enrich the curriculum. The program stresses development in the reading of literature, comprehension skills, vocabulary development, study and research skills, along with analytical, critical, and creative thinking, and speaking and listening skills. Discussion of the various kinds of literature read is an important component of this program. In order to foster a lifelong love of reading, opportunities are provided for sustained silent reading, independent reading projects, and listening to stories read aloud by the teacher.

READING FOR RESEARCH 6

This trimester course is designed to ensure that students gain an introduction to the range of reading and research skills needed for the complex literacy tasks they will encounter in various academic areas throughout middle school. This course is collaboration between the literacy specialist and the librarian. In this course students will learn:

- Strategies for reading a range of informational texts in both print and electronic formats.
- How to conduct an effective and efficient search for information using library databases.
- Methods for critically evaluating Websites and identifying sites that are good research sources.
- A variety of effective note-taking strategies.

Additionally, students will be encouraged to actively use the library's collection for independent reading and there will be opportunities for students to share the books they have particularly enjoyed.

ENGLISH LANGUAGE ARTS 7

The seventh grade language arts program continues the development of skills in reading, writing, listening, speaking, observing, and in study and research found in the sixth grade program. There is stress on process writing but also increasing work with open-ended questions and frequent impromptu writing. Grammar, usage, and mechanics at a level of greater complexity are studied directly but primarily through student writings. These writings include formal and informal pieces as students develop an awareness of the different levels of language usage. The reading/literature program at the seventh grade focuses on students reading across various genres, developing an increasing understanding of their various characteristics and purposes.

Selected novels are read by all students to develop a common knowledge of themes, and to introduce literary analysis. Attention is given to furthering critical thinking, comprehension, vocabulary, and research skills through work with novels, short stories, poetry, drama, and nonfiction.

ENGLISH LANGUAGE ARTS 8

The eighth grade course continues the two-component program in the language arts and the study of reading and literature, further developing the knowledge and skills the students have been acquiring to meet the many demands in this area, including MCAS testing and moving on to high school. The eighth grade language arts program emphasizes the continuing development of reading, writing, vocabulary, listening, speaking, and critical and creative thinking skills. In writing, the student practices composing, revising, and proofreading. The student writes in a variety of forms for different purposes and audiences and closely analyzes writings. Also, the student completes research projects using primary and secondary sources. The reading/literature component in the eighth grade aims to develop an appreciation of literary forms such as novel, short story, drama, and poetry. These studies include both impromptu and process writings, which integrate the language arts into the literature program to further the continuing goals in grammar and usage and in the mechanics of spelling and punctuation.

FINE & PERFORMING ARTS

FINE ARTS

ART 6

This is the required art class for all sixth graders. Art 6 bridges the elementary and middle school art programs. Skills learned in the elementary grade are reviewed and expanded as students demonstrate their understanding of visual art structures and functions. Students will complete units incorporating:

- elements and principles of art.
- techniques in drawing, color, design, and ceramics (including observation, abstraction, and expression).
- craftsmanship.
- the creative process (brainstorming, problem-solving, analyzing, and evaluating).

This course focuses specifically on skills outlined in the MA State Visual Arts Frameworks 1-5.

ART 7

This is one of two required art classes for all seventh graders. Art 7 reviews and continues to develop skills learned in Art 6 and expands upon their understanding of visual art structures and functions. Students will complete units incorporating:

- elements and principles of art.
- techniques in drawing color, and design (including observation, abstraction, and expression).
- craftsmanship.
- the creative process (brainstorming, problem-solving, analyzing, and evaluating).

This course focuses specifically on skills outlined in the MA State Visual Art Frameworks 1-5.

ART 8

This is the required art class for all eighth graders. Art 8 reviews and develops skills learned in the earlier grades and further expands students' understanding of visual art structures and functions. Students will complete units incorporating:

- elements and principles of art.
- techniques in drawing, color, and design (including observation, abstraction, and expression).
- craftsmanship.
- the creative process (brainstorming, problem-solving, analyzing, and evaluating).

This course focuses specifically on skills outlined in the MA State Visual Arts Frameworks 1-5.

CERAMICS/SCULPTURE 7

This is the Visual Arts trimester class that seventh graders take as part of the Fine & Performing Arts Grade 7 rotation. Students in this course will explore 3D art processes and techniques for creating functional and sculptural projects. Emphasis will be on producing 3D work that shows understanding of craftsmanship while maintaining a workspace responsibly. The primary material for this course will be clay and glaze that will be kiln fired. This course focuses on 3D skills outlined in the MA State Visual Arts Frameworks 1-5.

CERAMICS/SCULPTURE 8

This Art trimester class is part of the Fine & Performing Arts 8 rotation. Students in this course will continue the exploration of the 3D art processes and techniques used in Ceramics/Sculpture 7 to create functional and sculptural projects. Emphasis will be on producing 3D work that shows understanding of craftsmanship while maintaining a workspace responsibly. Students will use clay and may be introduced to other materials such as plaster, wire, cardboard, wood, and paper-mache, among others. This course focuses on 3D skills outlined in the MA State Visual Arts Frameworks 1-5.

GLOBAL ARTS 8

This Art trimester class is part of the Fine & Performing Arts 8 rotation. Global Arts enable students to produce individual works in a variety of media, including, but not limited to, drawing, painting and 3D. Students study how artists around the globe express their culture through art, and then interpret the culture's style and symbolism in their own works. In addition to reinforcing the skills of creating and producing expressive art works; this course specifically brings focus to the standards relating to artistic meaning, critical response, and connection to different cultures. When possible, specific countries or cultures studied are aligned with the social studies curriculum.

COMPUTER ARTS 8

This Art trimester class is part of the Fine & Performing Arts 8 rotation. Computer Arts enable students to apply art elements and principles to computer art.

PERFORMING ARTS

CHORUS/GENERAL MUSIC 6

This course is part of the sixth grade curriculum for all students who are not members of the Band or String Ensemble. In this class, students will study and perform music representative of a variety of musical styles and cultures through which they learn to control their rapidly changing adolescent voice in a safe and supportive environment. Public performances are important culminating experiences for this class. The most advanced singers are encouraged to audition for the Middle School Treble Choir. In addition, chorus/general music students spend substantial class time engaged in composition, notation study, and listening analysis. Students develop and use creative and critical thinking skills and cooperative learning techniques as they study all the elements of music in addition to performance. This course focuses specifically on skills outlined in the MA State Music Frameworks 1-5.

BOYS CHORUS 7

This course is open to all seventh grade boys on a non-audition basis. Boys in this class are able to focus on developing and fine tuning their changing adolescent singing voice in a supportive and comfortable environment. Students experience a variety of musical styles designed to give them a strong artistic choral experience, while developing healthy vocal techniques. Students also learn the important skills of ear training, sight singing and dictation. In addition to the two major concerts each year, the chorus may also perform for functions in Needham and surrounding communities. Members of Boys Chorus 7 are encouraged to audition for Treble Choir. This course continues the development of skills outlined in the MA State Music Frameworks 1-5.

GIRLS CHORUS 7

This course is open to all seventh grade girls on a non-audition basis. Students experience a variety of musical styles designed to give chorus members a strong artistic choral experience, while developing healthy vocal techniques. Students also learn the important skills of ear training, sight singing and dictation. In addition to the two major concerts each year, the chorus may also perform for functions in Needham and surrounding communities. Members of Girls Chorus 7 are encouraged to audition for Treble Choir. This course continues the development of skills outlined in the MA State Music Frameworks 1-5.

BOYS CHORUS 8

This course is open to all eighth grade boys on a non-audition basis. Boys in this class continue to develop and fine-tune their changing adolescent singing voice in a supportive and comfortable environment. Students experience a variety of musical styles designed to give them a strong artistic choral experience, while developing healthy vocal techniques. Students also learn the important skills of ear training, sight singing and dictation. In addition to at least one major concert each year, Boys Chorus 8 also spends time exploring techniques and concepts used in Musical Theater. Members of Boys Chorus 8 are encouraged to audition for Treble Choir. This course continues the development of skills outlined in the MA State Music Frameworks 1-5.

GIRLS CHORUS 8

This course is open to all eighth grade girls on a non-audition basis. Students experience a variety of musical styles designed to give them a strong artistic choral experience, while

developing healthy vocal techniques. Students also learn the important skills of ear training, sight singing and dictation. In addition to at least one major concert each year, Girls Chorus 8 also spends time exploring techniques and concepts used in Musical Theater. Members of Girls Chorus 8 are encouraged to audition for Treble Choir. This course continues the development of skills outlined in the MA State Music Frameworks 1-5.

CONCERT BAND 6

This course is open to sixth grade students who play brass, woodwind, or percussion instruments at a beginning or intermediate level. Students continue to expand the fundamentals of musicianship and technical skill through the study of different styles of band literature. The Concert Band participates in 6th grade concerts, assembly programs, and the bi-annual Bandorama. Band members are strongly encouraged to study their instrument privately, though it is not required. The most advanced band members may also audition for the Middle School Jazz Ensemble. Private instruction will immensely enhance the ensemble experience for all of the students. This course focuses specifically on skills outlined in the MA State Music Frameworks 2-5.

CONCERT BAND 7

This course is open to seventh grade students who play brass, woodwind, or percussion instruments at a beginning/intermediate level. A minimum of one-year experience on the instrument, or permission of the instructor, is needed to enroll. Students learn the fundamentals of musicianship and technical skill through the study of different styles of band literature. The Concert Band participates in a variety of school and community concerts, as well as an annual adjudicated music festival. Band members may audition for the Middle School Jazz Ensemble. Interested students are strongly encouraged to study their instrument privately, though it is not required. Private instruction will immensely enhance the ensemble experience for all of the students. This course continues the development of skills outlined in the MA State Music Frameworks 2-5.

CONCERT BAND 8

This course is open to eighth grade students who play brass, woodwind, or percussion instruments at a beginning/intermediate level. A minimum of one-year experience on the instrument, or permission of the instructor, is needed to enroll. Students learn the fundamentals of musicianship and technical skill through the study of different styles of band literature. The Concert Band participates in a variety of school and community concerts, as well as an annual adjudicated music festival. Band members may audition for the Middle School Jazz Ensemble. Interested students are strongly encouraged to study their instrument privately, though it is not required. Private instruction will immensely enhance the ensemble experience for all of the students. This course continues the development of skills outlined in the MA State Music Frameworks 2-5.

STRING ENSEMBLE 6

This course is open to sixth grade students who play violin, viola, cello, or string bass with a minimum of two year's playing experience or with permission of the instructor. String Ensemble 6 performs in all sixth grade concerts as well as the biannual Stringfest. The most advanced String Ensemble members may audition for the Town Orchestra. Interested students are strongly encouraged to study their instrument privately, though it is not required. Individual

instruction can greatly improve a student's string ensemble experience. This course focuses specifically on skills outlined in the MA State Music Frameworks 2-5.

STRING ENSEMBLE 7

This course is open to seventh grade students who play violin, viola, cello, or string bass with a minimum of two year's experience on their instrument, or with permission of the instructor. The String Ensemble performs a variety of intermediate level orchestra literature at numerous concerts during the year, including the biannual Stringfest. String Ensemble members may audition for the Town Orchestra. Interested students are strongly encouraged to study their instrument privately, though it is not required. Individual instruction can greatly improve a student's string ensemble experience. This course continues the development of skills outlined in the MA State Music Frameworks 2-5.

STRING ENSEMBLE 8

This course is open to eighth grade students who play violin, viola, cello, or string bass with a minimum of two year's experience on their instrument, or with permission of the instructor. The String Ensemble performs a variety of intermediate level orchestra literature at numerous concerts during the year, including the biannual Stringfest. String Ensemble members may audition for the select Town Orchestra. Interested students are strongly encouraged to study their instrument privately, though it is not required. Private instruction will immensely enhance the ensemble experience for all of the students. This course continues the development of skills outlined in the MA State Music Frameworks 2-5.

MUSIC EXPLORATIONS 7

This is the Music trimester class that is part of the Fine & Performing Arts 7 rotation. In this class, students will explore how music interacts with and changes according to cultures, both their own and others. A variety of genres including jazz, popular, rock, and world music's are studied. Students will compose and perform music using technology, traditional instruments, and original instrument creations. Through this, students will continue to develop their command and understanding of the fundamentals of music: rhythm, melody, harmony and timbre. This course continues the development of skills outlined in the MA State Music Frameworks 3-8.

THEATER ARTS 7

This Theater trimester class is part of the Fine & Performing Arts 7 rotation. In Theater Arts 7, students will learn acting techniques to portray believable characters in improvised and scripted scenes. Students will learn theater vocabulary terms, and about different types of theaters and performance spaces. Through individual and group work, students will participate in improvisations that build various acting skills including imagination, character development, listening and focus. Students will read and analyze comic and dramatic material. Students will also describe and analyze their own theatrical work and the work of others using appropriate vocabulary. This course focuses on skills outlined in the MA State Theatre Frameworks 1-5.

THEATER MUSICAL ARTS 8

This Theater/Music trimester class is part of the Fine & Performing Arts 8 rotation. In this integrated performing arts class students will expand upon and develop their musical and theatrical skills by participating in a variety of roles used in professional and amateur

productions. These roles include that of actor, singer, choreographer, director, and sound technician, among others. Class activities will include improvisations, re-enactments of classic theatrical/musical scenes, and development of original monologues and scenes to given prompts. Script reading, analysis, and active performance, will be constants throughout this class. This course will continue the development of skills outlined in both the MA State Theater and Music Frameworks 1-5.

FOREIGN LANGUAGES

FRENCH 6

This course is for the student who wishes to learn French. Vocabulary topics include greetings, the alphabet, courtesy, numbers, calendar, classroom, body, weather, clothing and describing themselves.

FRENCH 7

This is a continuation of French 6. Vocabulary topics include the family, house, food, restaurant and travel.

FRENCH 8

This course is conducted primarily in French. Students expand their use of previously learned vocabulary as well as learning new topics. In addition to learning how to speak using the past tense, students learn vocabulary related to the community and travel and make comparisons among countries where French is spoken.

SPANISH 6

This course is for the student who wishes to learn Spanish. Vocabulary topics include greetings, the alphabet, courtesy, numbers, calendar, classroom, body, weather, clothing and describing themselves.

SPANISH 7

This course is a continuation of Spanish 6. Vocabulary topics include describing clothing, going shopping, travel, the house and household chores; and health and the body.

SPANISH 8

This course is conducted primarily in Spanish. Students expand their use of previously learned vocabulary as well as learning new topics. In addition to learning how to speak using the past tense, students learn vocabulary related to the community, entertainment, restaurant and cooking, recycling, and the environment.

MANDARIN 8

This course is for the student who wishes to learn Mandarin and plans to continue their study of Mandarin at the high school. It is an introduction to Mandarin, to its pronunciation and intonation, to its basic grammar and idioms, and to an elementary vocabulary. The aim is to develop the listening and speaking skills and to acquire a basic level of fluency. The course also includes the reading and writing of simple texts. The student will be introduced to the Chinese-speaking world.

INTRODUCTION TO CHINESE LANGUAGE & CULTURE 8

This trimester course is part of the Performing arts rotation in grade 8. It is an option provided to students who do not select band, strings, or chorus. It provides an opportunity for students to explore Chinese language and culture. Students will begin to speak and write Mandarin as well as to learn about life in China, its customs and culture.

MATHEMATICS

MATHEMATICS 6

The purpose of this course is to insure that all students have been introduced to and have mastered the necessary prerequisite skills and essential knowledge to begin the transition to algebraic reasoning. This course will review and extend the students' mathematical knowledge and skill development. Students will study the following topics: number theory, fractions, decimals, ratio and proportion, percents, geometry, integers, statistics, probability, and an introduction to pre-algebra. In addition, preparation for the Grade 6 MCAS will be provided. Calculators, computers, and interdisciplinary units are used when appropriate to instructional goals. At the end of the school year, after evaluating a student's performance, each child will be recommended for either Pre-Algebra A or Pre-Algebra B.

PRE-ALGEBRA 7A

Pre-Algebra 7A covers the same topics as Pre-Algebra 7B with an approach that develops new ideas through student investigation. This approach is designed for students who work well independently and thrive in a discovery-learning model. In general, mathematical concepts and skills are introduced using a balance of abstract and concrete experiences. To be eligible for Pre-Algebra A, students must have demonstrated complete mastery of basic skills, the ability to think algebraically, and to understand multiple concepts while exhibiting excellent study skills in homework completion and test/quiz preparation. This course will include some review of difficult topics requiring skill reinforcement. Specifically, the students will study the following topics: metric system, variables, expressions, and number properties, integers and rational numbers, equation solving and algebraic word problems, ratio and proportion, percents, inequalities, statistics, and two and three dimensional geometry. In addition, preparation for the Grade 7 MCAS will be provided. Calculators, computers, and units integrated across the curriculum are used when appropriate to instructional goals.

PRE-ALGEBRA 7B

Pre-Algebra 7B covers the same topics as Pre-Algebra 7A with a more hands-on concrete approach that provides frequent content practice. Mathematical concepts are introduced at a concrete level and developed when possible toward a level of abstraction. This course allows for continued skill development and reinforcement of basic skills and concepts. Pre-Algebra 7B is designed to support the learning of students who have not fully retained the skills and concepts covered in Mathematics 6. Students will learn to solve problems through repetition with emphasis placed upon the introduction and learning of new algebraic concepts and skills. Students placed in this level thrive in a structured and directed learning environment. Specifically, the students will study the following topics: variables, expressions, and number properties, integers and rational numbers, equation solving, algebraic word problems, ratio, proportion, and percent, inequalities, statistics, and two and three dimensional geometry. In addition, preparation for the Grade 7 MCAS will be provided. Calculators, computers, and units integrated across the curriculum are used when appropriate to instructional goals.

ALGEBRA 8A

Algebra 8A covers the same topics as Algebra 8B with an approach that develops new ideas through student investigation. Algebra 8A is offered to those students who, in Pre-Algebra 7A, have mastered basic pre-algebra skills, demonstrated the ability to reason abstractly, and are able to work independently. Students work extensively with polynomials, factoring, rational expressions, linear equations and systems of open sentences, radical expressions, quadratics, geometry and probability. Students will derive formulas, explain the advantages of different forms of equations, and apply these algebraic skills to a variety of real world applications and mathematical problems. Problem solving, communicating mathematical ideas, technological connections, and reading a textbook for understanding is stressed throughout the course. In addition, preparation for the Grade 8 MCAS will be provided. Calculators, computers, and units integrated across the curriculum are used, when appropriate, to meet instructional goals.

ALGEBRA 8B

Algebra 8B covers the same topics as Algebra 8A with an emphasis on the most fundamental concepts and, therefore, the most important algebraic skills necessary for future success in secondary school mathematics. The pace of this course allows for the continued skill development and reinforcement of basic algebra skills and concepts. Mathematical concepts are introduced at a concrete level and developed, when possible, toward a level of abstraction. This course aims to develop students' confidence and ability to do algebra. Students in this class thrive in a structured, direct learning environment with plenty of practice. Algebra 8B features work with rational numbers, polynomials, factoring, linear equation and systems of linear equations, radicals, quadratics, simple rational expressions, probability, geometry, and applications to problem solving. Students are expected to become facile with basic techniques of factoring and simplifying expressions. In addition, preparation for the Grade 8 MCAS will be provided. Calculators, computers, and units integrated across the curriculum are used, when appropriate, to meet instructional goals.

MEDIA & TECHNOLOGY

COMPUTER TECHNOLOGY 6

Students will learn to setup and use their flash drives for transport and back up of schoolwork files. Students will practice and apply skills in word processing, create content and digital images for presentations and publishing, and work collaboratively to accomplish projects. Students will learn to read technical documentation, follow instructions and be able to work with some independence. Students will develop skills and concepts that they will be able to transfer to other applications and computer platforms as they prepare school projects. Internet safety instruction and social networking guidelines will be incorporated, as applicable.

COMPUTER TECHNOLOGY 7

Students will learn to use their network accounts and flash drives to manage their schoolwork and projects. They will improve their use of collaborative communications tools, use research databases, use graphic organizers for project planning, learn to create simple animations and improve their presentation skills. They will read technical documentation to learn new skills. Students will develop skills and concepts that they will be able to transfer to other applications

and computer platforms as they prepare school projects. Internet safety instruction and social networking guidelines will be incorporated, as applicable.

COMPUTER TECHNOLOGY 8

Students will work with tables, spreadsheets and databases to improve their data literacy skills. They will research, graph, and present data within the context of a human-interest topic. They will read technical documentation to learn new skills. Students will create a presentation in the style of an interactive three-dimensional game environment with graphical, data and multimedia elements. Internet safety instruction and social networking guidelines will be incorporated, as applicable. Students will develop skills and concepts that they will be able to transfer to other applications and computer platforms as they prepare school projects.

SCIENCE

SCIENCE 6

This is a general science course focusing on topics in the Physical, Life, and Earth Sciences. It includes the study of astronomy, human body systems, chemistry, bridges and structures. Laboratory activities are an integral part of the course. Considerable emphasis is placed on the development of laboratory, writing, and study skills through an integrated learning approach.

SCIENCE 7

This is an introductory biology course. The emphasis is on the understanding and appreciation of all forms of life, including plants, animals, humans, and their ecological relationships. Concepts are reinforced by multiple teaching strategies including teacher led instruction, hands-on activities, inquiry and student presentations. Considerable emphasis is placed on the development of problem solving, and science thinking skills.

SCIENCE 8

This course is an integrated program relating the important Physical Science, Earth Science, and Engineering and Technology concepts of our world. The principles of forces, motion, density, forms of energy, and chemistry are studied and related to concepts that describe the features and processes of the Earth and its resources. The principals and processes of technology and engineering are also woven into the above scientific concepts. Teacher led instruction, hands-on activities, and inquiry based learning are an integral part of the course. Emphasis is placed on the development of study, reading, writing, problem solving, inquiry, and laboratory skills.

ENGINEERING DESIGN 7 & 8

The course is a hands-on course that applies engineering and technology principles to practical engineering and technology problems. The investigated technologies are in the fields of manufacturing, construction, transportation, communication, and bioengineering. The course integrates science, engineering, and technology concepts and relates them to improving the environment and people's lives. Problem solving and critical thinking skills provide students with opportunities to simulate real-world applications of science. This program also provides students with an opportunity to apply ideas from Math and Science. Classroom studies take place in a shop and laboratory environment where practical safety procedures are emphasized during the learning.

SOCIAL STUDIES

SOCIAL STUDIES 6

This course begins with a study of archaeology and traces human development from prehistoric times through the ancient Middle East, ancient Egypt, the Greeks, and the Romans. In each situation, the development of civilization (including changes in religious beliefs) is explored in a variety of ways. As children learn about the ancient world, they will be engaged in hands-on activities, projects, field trips, research, and performances. Throughout this sixth grade study, geography and map skills are emphasized.

SOCIAL STUDIES 7

The seventh grade program shares the grade 6 courses' emphasis on history and geography. This first unit explores multicultural perspectives and social justice, laying the foundation for future units. This equips students with key concepts and vocabulary that are woven throughout the course. Ancient civilizations from regions such as South Asia and East Asia are examined as well as selected key connections to the modern world. There is an emphasis on, and comparative analysis of, major world religions and philosophies.

SOCIAL STUDIES 8

Although students will review some of the history in North America before 1763, the focus will be on the time period directly before, during, and after the American Revolution. Questions about how our government developed and works are central to the course. As students examine how our government was created and worked in the early years of the United States, they will also be dealing with questions about citizenship. What does it mean to be a good citizen? What are some current issues with which U.S. citizens should be familiar?

All students will complete a major research project in the spring. This project is intended to develop skills needed at the high school, and provide students with an opportunity to explore a research topic in depth.

WELLNESS

The Middle School wellness program is designed to provide students the knowledge and skills necessary to make lifestyle decisions that will promote optimal health and well being throughout their entire lives. It is comprised of Health Education, Physical Education, and Experiential Education. The curriculum in each of these disciplines emphasizes students' responsibility for their own health and well-being and fosters the development of skills and knowledge that will help them to nurture and care for themselves in the social, emotional, physical, and intellectual areas of their lives.

PILOT PROGRAMS ADDRESSING SEXUALITY

A new unit focusing on sexuality education will be piloted in grade 6. In 7th and 8th grade, sexuality related themes will be added to preexisting health units. Examples include: how the use of alcohol can influence your decisions around sexual behavior, the influence of the media on sexual behaviors, the effects of sexual identity on stress, and sexual messages communicated in the media. These changes are explained in more detail within the health education program descriptions that follow.

Parent Engagement: We believe that parents are their children's primary educators and that each family has its own values and beliefs about sex and sexuality. The units with sexuality related topics/themes are designed to include homework assignment that promote discussion between students and a parent/guardian or other trusted adult about topics that are being covered in class.

Parent Notification: Parents will receive a letter in the fall that will inform them that topics related to sex and sexuality will be included in their sons/daughters health classes. The letter will also include a detailed outline of each lesson, and will contain an invitation to a parent/guardian information night to learn more about the unit prior to its introduction in the classroom. Under Massachusetts law parents have the right to decide whether their child will participate in any single lesson or unit that includes information about human sexuality. A note or letter to the building principal requesting that their child not participate in the sexuality portion of the health education curriculum is all that is needed. An appropriate alternative activity will be provided for students whose parent(s)/guardian(s) choose to have them not participate.

GRADE 6

In Grade 6, health education and physical education are combined to make up our wellness program. Students are assigned to a wellness class and spend part of that time in physical activity and part of that time in the classroom devoted to the study of health education. Both disciplines contribute to each student's ongoing development of the skills, knowledge, and attitudes needed to participate in an active healthy lifestyle.

The physical education portion of this experience provides a natural opportunity for students from five different elementary schools, to develop physical skills, get to know one another, make friends, and develop lasting relationships. Physical education provides students with an opportunity to interact with one another through their physical involvement in games, sports, dance, and other movement activities. A special emphasis is placed on improving physical fitness and creating positive social experiences. In sixth grade physical education classes, teachers modify traditional games to increase students' opportunities to apply skills learned in elementary school, practice new skills, and develop a better understanding of game strategies. In addition, students learn fitness concepts and begin to understand how goal setting can help to improve personal fitness. Specific units for students in the sixth grade physical education classes include activities such as basic movement skill practice, basketball, creative games, fitness, invasion games, self-exploration, team handball, and volleyball. Students are expected to change into appropriate clothing for physical activity. This includes loose fitting shorts or sweatpants, T-shirts or sweatshirts, socks and sneakers.

The health education portion of this experience begins with an introduction to our wellness model and includes activities that help students make new friends and understand the qualities of healthy friendships. Conversely, students are taught how to identify characteristics of harmful friendships and resolve conflicts in their relationships. Students also study diet, food marketing, and nutrition fads as they relate to issues of healthy and unhealthy eating behaviors. They learn practical skills, such as, how to choose healthy snacks and how to read food labels. They compare food products to learn how to make the best choice out of 3 different brands of the same food (e.g., name brand, store brand, organic brand). Students also learn about addiction and look more specifically at tobacco and caffeine addiction.

A new unit called Healthy Relationships will be piloted in grade 6. This unit will define sex, sexuality and intimacy and teach communication and decision-making skills to help support the healthy relationships and the new social expectations these students will encounter in middle school and beyond. Students will be given two homework assignments that will promote communication with a parent/guardian, or other trusted adult about the topics and experiences covered in this unit. The specifics of this unit can be viewed on our Wellness Department website [<http://rwd1.needham.k12.ma.us/wellness/>].

PHYSICAL EDUCATION 7

The seventh grade physical education program recognizes the uniqueness of the middle school child and is designed to support students' healthy social development by emphasizing the qualities of cooperation, competition, and good sportsmanship. Through their active participation in games, sports, adventure activities, fitness, and dance, students develop physical skills and improve their individual fitness levels. Health fitness assessments are conducted in seventh grade to help students assess their own cardiovascular health, abdominal strength and endurance, upper body strength, and flexibility. Students are given the results of their individual tests and are encouraged to develop exercise practices that will help them to improve their scores. Specific units for students in the seventh grade include basketball, circuit training, creative games, invasion games, paddle tennis, survivor challenge, team handball, volleyball, and weight training.

HEALTH EDUCATION 7

In the seventh grade Health Education Program students are expected to be more reflective by exploring how their behaviors, and the behaviors of others, influence health and well-being. Students start by analyzing their responses to a personal health survey and identifying their individual learning styles. After focusing first on themselves, students learn a process for making good decisions and explore the influence that peers have on their decision-making. Students also study infectious diseases and non-communicable diseases with a focus on cancer. They choose a disease to study in more detail and present information to their peers (description, cause, signs and symptoms, effects, treatments/cures, prevention). The study of HIV/AIDS will be included in the disease unit. Students also learn about substance use and abuse (caffeine, alcohol, marijuana and other drugs) and practice the decision-making model in relation to substance use. In seventh grade, sexuality related themes will be addressed as they relate to decision-making. Examples include being pressured to participate in sexual behaviors that you are uncomfortable with (peer pressure), how the use of alcohol can influence your decisions around sexual behavior, and the influence of the media on sexual behaviors.

PHYSICAL EDUCATION 8

The eighth grade physical education program recognizes the unique role that eighth grade students play as leaders in the middle school community. Through the use of games, sports, adventure activities, fitness, and dance, students are encouraged to be active, improve their fitness levels, and model good sportsmanship. In addition, health fitness assessments are conducted to provide data in the areas of cardiovascular health, abdominal strength and endurance, upper body strength and flexibility. Students are given the results of their individual tests and are encouraged to set personal goals for improvement. Students develop an individual exercise plan to help them meet their goals. Specific units for students in the eighth grade

include basketball, circuit training, creative games, invasion games, paddle tennis, survivor challenge, team handball, volleyball and weight training.

HEALTH EDUCATION 8

In eighth grade students begin to examine their own values as they take a broader look at how both genetics and human behavior affect health. Students also study the physiology of stress, identify the stressors in their lives, and learn the difference between healthy and unhealthy relationships. Students will learn about the pressures involved in being in a relationship and focus on the pressures that some may feel to make choices in order to please another person. This will include the pressure to participate in sexual behaviors. Students will practice strategies for making good decisions that reflect their values and goals and will also learn skills for good communication and for resolving conflict in their relationships.

Lesbian, Gay, Transgender, and Questioning (LGBTQ) Identities are reviewed during the stress unit when students identify potential stresses in an adolescent's life. Examples will include being confused about one's own sexual identity and having gay parents.

Sex in the media will be presented through the Youth Commission's program "Picture Perfect".

EXPERIENTIAL EDUCATION 7 & 8

These courses are designed to give students an opportunity to learn more about the social and emotional learning goals established for them by the Needham Public Schools. In this course, the teacher purposefully engages students in a variety of indoor and outdoor challenge activities and facilitates a process of participation, reflection, and growth. Participation in these activities provides an opportunity for students to practice skills for decision making, communication, cooperation, conflict resolution, problem solving, and developing a healthy relationship with self and others. Students will be given problems to solve that will require them to practice these skills and then participate in a process of reflection and discussions to encourage them to think about ways to apply these skills to their daily lives now, and in the future. At the core of this program, is the students' need for a safe, risk-taking environment, which fosters appreciation of others and promotes individual contribution, commitment, and follow-through. Specific activities stress creating community, developing healthy interpersonal relationships, group problem solving, and building trust and empathy.

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: **School Committee Comments**

Background Information:

Members of the School Committee will have an opportunity to report on events, information, and matters of interest not on the agenda.

Action Recommended:

Report only

Members of the School Committee available for comment:

**Marianne Cooley, Chair
Heidi Black, Vice-Chair
Joseph Barnes
Connie Barr
Michael Greis
Kim Marie Nicols
Bill Paulson**

**Needham School Committee
Needham, Massachusetts 02492
Wednesday, March 7, 2012**

Agenda Item: Information Item

- FY12 Second Quarter School Operating Budget Projections
- CIP FY13-17 Technology Request Supplemental Information

NEEDHAM PUBLIC SCHOOLS

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INTEROFFICE MEMORANDUM

TO: Needham School Committee
FROM: Anne Gulati, Director of School Financial Operations
SUBJECT: FY12 Second Quarter School Operating Budget Projections
DATE: February 20, 2012


<u>Expenditure Category</u>	<u>ATM Budget (1)</u>	<u>YTD Budget Transfers (2)</u>	<u>Pending 11/11 STM Adj (3)</u>	<u>Pending Budget Transfers (4)</u>	<u>Projected Amended Budget</u>	<u>Projected TL Expenses</u>	<u>Balance Remaining</u>
Salaries	41,477,579	(4,000)	65,000	780	41,539,359	41,003,973	535,386
Purchase of Service	6,014,570	5,946	-	5,970	6,026,486	5,309,118	717,368
Expenses	944,222	(1,946)	-	(6,750)	935,526	1,052,995	(117,469)
<u>Capital Outlay</u>	-	-	-	-	-	28,985	(28,985)
TOTALS	48,436,371	-	65,000	-	48,501,371	47,395,071	1,106,300

(1) Approved May 2011 Town Meeting.

(2) Cumulative Transfers Through 12/30/11

(3) November 2011 Special Town Meeting (STM) Budget Adjustment

(4) Projected School Budget Transfers After 12/30/11

Committed Expense - Building Studies	(150,000)
Committed Expense - Financial System Upgrade	(200,000)
Committed Expense - SPED System Upgrade	(24,000)
Committed Expense - FY12 Capital Technology	(71,644)
Committed Expense - FY12 ELL Tutoring	(23,760)
Hold In Reserve - Balance FY12 Budget	(350,000)
Potential Undesignated Surplus/(Deficit) 	286,896

Budgetary projections have been completed for all school operating accounts, including salaries, SPED out-of-district tuitions, SPED professional services, transportation and legal expenses. The following expenditure projections are intended to supplement the regular FY12 QII Financial Report, dated January 13, 2012.

At this time, the School Department estimates that it will spend approximately 97.7% of its operating budget by June 30. The larger than usual residual balance includes three components: savings resulting from the pre-purchase of FY12 SPED tuitions (from FY11 budget funds), additional Circuit Breaker reimbursements received in excess of budget and savings from employee turnover in FY12. These residual funds are largely committed to one-time technology and facility planning uses. An additional \$350,000 will be used to provide a small contingency reserve against unanticipated and unbudgeted expenses in FY12. The remaining estimated balance of \$286,896, could be used for a variety of additional one-time needs or returned to the Town.

Potential needs include: providing funds for desired additional improvements at Newman School, including the building exterior, technology infrastructure, gym, classroom, auditorium or office space; supplementing the budget for the financial system upgrade, hiring temporary computer technicians to assist with the installation of technology equipment purchased in FY12 and FY13, and paying one-time expenses requested (but not funded)

as part of the FY13 operating budget, such as the new special education van. In addition, the Department of Elementary and Secondary Education has informed us that the FY13 Circuit Breaker reimbursement rate could be between 55-60%, which is less than the 65% budgeted amount. The reduced reimbursement rate will create an estimated budget gap of between \$131,104-\$262,209 in FY13. To close this gap, the School Department either will need to request additional funds from the Town, or plan to pre-purchase tuitions this year using available budget savings, in order to cover the anticipated shortfall next year.

The prior year pre-purchase of SPED tuitions ‘freed up’ \$621,007 in FY12 budget funds, for the intended purpose of: providing ‘one-time’ resources to cover expenses related to the relocation of Newman students to the Pollard modular classrooms in 2011/12 (\$144,716), funding FY12 capital replacement technology expenditures (\$71,644) and providing a special education/budget contingency reserve (of approximately \$405,000.) The Newman relocation expenses incurred to date are consistent with prior year expectations, but may increase if additional needs are identified related to the move back to Newman. The capital replacement expenditures reflect the still unspent portion of the \$300,000 that was approved to come from school one-time funds in FY12 for capital technology replacement. (These funds were budgeted as part of the FY12 school capital budget.) The special education contingency has been completely spent – as evident below, we project that special education tuition expenses will exceed budget by \$462,381 in FY12.

Additionally, the School Department received \$405,015 in additional Circuit Breaker funds, over and above the FY12 budgeted reimbursement of \$952,036 (40%.) The additional funds, which represent a 65% reimbursement rate, were included in the final state budget for FY12. Since these additional funds are required to meet ongoing special education tuition expenditures in FY13, they are budgeted as revenue for next school year. During the current year, however, they represent one-time funds that could be applied to other one-time uses. We plan to spend these funds as follows: financial system upgrade (\$200,000), Hillside/Mitchell Pre-feasibility Study (\$90,000), Pollard Programmatic Study (\$60,000) and SPED software upgrade (\$24,000.) These committed expenditures are identified in the chart above.

Net savings from position turnover in FY12 (\$535,386) account for the remaining available balance. As discussed in greater detail below, the turnover savings estimate is approximately \$250,000 higher than the prior year, reflecting higher than usual turnover activity during the year. It is important to note, however, that although this projection is based on best available information to date, it is an estimate only; given imperfect information, the volatility of many school accounts, and the large volume of transactions, it is possible that actual expenditures could vary significantly in either direction by June 30.

The following provides more detailed information about several of the major school accounts, including salaries, SPED out-of-district tuitions and professional services, transportation and legal expenses. Additionally, the planned uses of Newman relocation and federal Education Jobs grant funds in FY12 are described below.

Salaries:

Net budgetary surplus in the various salary accounts is projected to be \$535,386, which represents an operating variance of 1.3%. This amount represents a potential estimate of funds remaining after all wages, lane changes, longevity, alternative longevity, sick buy back, substitutes, vacancies, extended family/medical (FMLA) leaves, stipends, and other miscellaneous payments have been accounted for. The estimate also is net of all position changes made on a temporary basis through June 30, which are summarized in the chart on the next page.

The turnover savings projection is approximately \$250,000 higher than the second quarter projection last year, a variance which is attributed to staff vacancies and hiring lag occurring during the year. These savings are in addition to the \$345,872 in turnover savings realized at the beginning of the year from the new school year hiring process (and which were incorporated into the FY13 budget.) Savings from family medical leaves account for most of the remaining salary savings estimate. (In FY12, we are projected to incur \$932,411 in estimated savings from unpaid family medical leaves, which fully offsets the \$914,783 estimated expense for substitutes. As a result, none of the \$120,000 in budgeted FMLA substitute expense will be needed.)

Temporary Position Changes in FY12

FTE	Department	Description	Cost
0.02	Personnel	Summer Secy Inc Hours (5.4 to 7), Days (26 to 46)	\$ 4,115
0.00	Ext Funding	Volunteer Coordinator Addtl Contract Days	\$ 161
0.00	Transportation	Additional Summer Hours - Drivers	\$ 5,945
0.29	Transportation	Sub Monitor	\$ 5,355
1.50	Eliot	Temporary Increase in Classroom Teachers	\$ 76,652
-0.06	Hillside	Unfilled Secretary Vacancy	\$ (1,418)
-0.50	Newman	Reduction in Classroom Teachers	\$ (27,500)
-0.30	Newman	Clerical Staffing Adjustment (Turnover)	\$ (7,754)
0.00	Newman	Expanded Lead Secretary (11 to 12 Mo)	\$ 4,723
0.00	Pollard	Scheduling Stipend	\$ 10,564
-0.06	Nursing/NHS	Unfilled Vacancy	\$ (3,491)
1.79	SPED/Summer & OT	SPED/Summer & OT Adjustment	\$ (6,755)
0.20	SPED/Pollard	0.2 Expanded Reading Teacher	\$ 11,949
0.20	SPED/Pollard	0.2 Expanded Reading Teacher	\$ 12,508
-0.50	SPED Liaisons	Position Changes Due to Student Needs	\$ (60,808)
0.07	SPED TA	Position Changes	\$ (10,857)
0.50	SPED/Hillside	New Team Chair (0.5)	\$ 33,842
0.84	ELL Tutors	Expanded Tutor Hours	\$ 11,240
0.30	Reading/Hillside	0.3 Reading Specialist (From Title I Grant)	\$ 19,880
0.50	ETC/District	Technician Adjustment - Ed Jobs	\$ 30,652
0.50	ETC/Hillside	Expanded Technician (0.5 to 1.0)	\$ 27,971
0.13	Phys Ed/Mitchell	Temporary Increase Phys Ed Teacher	\$ 6,149
0.20	Phys Ed/Pollard	Add 0.2 FTE Pollard Phys Ed	\$ 8,578
0.40	Phys Ed/NHS	Expanded Phys Ed Teacher	\$ 11,038
-0.14	Music/Accompanist	FTE Adjustment	\$ -
-0.30	Music/High Rock	Allow 0.3 FTE Music Teacher to Remain Vacant (Unfilled)	\$ (16,500)
<i>Position Conversion:</i>			
0.20	NHS	Classroom Teacher (0.2 FTE)	\$ 8,578
-0.20	WL/NHS	Convert 0.2 FTE WL Teacher to NHS Teacher (Offsets 0.6 FTE Increase)	\$ (11,000)
0.00		Subtotal	\$ (2,422)
<i>Position Conversion:</i>			
-0.20	Phys Ed/Pollard	Convert 0.2 FTE Phys Ed Teacher to 1.0 Pollard SPED Liaison	\$ (11,000)
-0.20	Art/Pollard	Convert 0.2 FTE Art Teacher to 1.0 Pollard SPED Liaison	\$ (11,000)
-0.10	Music/Pollard	Convert 0.1 FTE Music Teacher to 1.0 Pollard SPED Liaison	\$ (5,500)
-1.00	SPED/Pollard	Convert 1.0 SPED TA to 1.0 Pollard SPED Liaison	\$ (28,529)
1.00	SPED/Pollard	SPED Teacher (Created from Converted Positions)	\$ 48,165
-0.50			\$ (7,864)
<i>Position Conversion:</i>			
0.50	SPED/HS	Expanded Team Chair (0.5 to 1.0)	\$ 40,229
-1.00	SPED/HS	Convert 1.0 FTE NHS TA	\$ (21,462)
-0.50			\$ 18,767
<i>Newman Relocation Staffing:</i>			
	Pollard	Computer Technician - Moving Computers @ Pollard (August)	\$ 8,995
	Newman	10 Box Unpacking Days - Newman Clerical	\$ 2,323
	Newman	Expanded Hours - Newman ELC TA's	\$ 2,105
	Newman/ Pre-K	Expanded Hours - Preschool TA's	\$ 1,317
0.20	Newman/ Pre-K	Expanded Preschool Secretary	\$ 6,517
	Newman/ Pre-K	Summer Supervision Days Preschool Coordinator	\$ 1,380
	Newman	Summer Supervision Days Newman Assistant Principal	\$ 4,421
0.50	Newman/ Pre-K	0.5 Expanded Nurse Position (Newman Relocation)	\$ 38,902
0.10	Newman	Temporary Increase Asst Principal (Newman Relocation)	\$ 10,154
0.19	Newman	Temporary Office Aide (Relocation)	\$ 4,165
1.00	Newman	Temporary Office Aide (Relocation)	\$ 20,270
0.60	Newman	Temporary Office Aide (Relocation)	\$ 10,586
0.14	Newman	Temporary Dismissal Aide (Relocation)	\$ 2,701
0.14	Newman	Temporary Dismissal Aide (Relocation)	\$ 2,700
0.00		<u>Newman Relocation Coordinator</u>	\$ 14,340
2.87			\$ 130,875
7.46		GRAND TOTAL	\$ 285,593

Although this salary estimate is based on best available information, total earnings could vary substantially from this amount, given imperfect information and the fact that some salary costs are extremely difficult to project. The expenses, which are the most difficult to estimate include: the use of teacher substitutes, family and medical leaves, as well as the number and length of position vacancies. Additionally, although teachers are paid a fixed wage that is spread evenly over twenty-six pay periods, aides and clerical staff are paid on an hourly basis for time worked, which can never be exactly anticipated. Moreover, school employees often receive hard-to-predict supplemental wages for project-based work, co-curricular stipends, and other assignments.

Non-Salary Accounts:

With a few exceptions, we project that non-salary (expense and service) accounts will be completely expended by the end of the fiscal year. Exceptions include the following accounts, which tend to generate large budget variances: out-of-district tuition, professional services, transportation, and legal expenses. These accounts are examined in greater detail below.

Student Out-of-District Tuition:

Based on current information about known out-of-district placements, student tuition expenses are expected to total \$5,255,316, which is \$462,380 higher than initial budgeted resources. (These resources exclude the \$621,007 in pre-purchase funds and \$405,015 in additional Circuit Breaker reimbursements.) This \$462,380 will be covered by the aforementioned portion of the pre-purchase funds, which were earmarked as special education contingency. The additional Circuit Breaker funds (of \$405,015) have been committed to the one-time technology and facility study expenditures itemized above.

The total tuition expenditure estimate includes \$140,417 in anticipated (contingency) placements.

Tuition Expenditures			Tuition Funding Sources					
	FY12 Projected Tuition Expense	FY12 Expense Transfers	FY12 Operating Budget	FY12 Budget Circuit Breaker	FY12 Tuition Pre-Purchase	FY12 94-142	FY12 Pending Transfers	Over/(Under) Budget
9100 Regular Ed	2,000	-	-	-	-	-	2,000	
9100 Public	611,151		502,226	113,600	60,902	10,794		(76,371)
9200 Out of State	703,562	48,000	259,382	194,000	27,390	-		270,790
9300 Private In State	3,645,354	(48,000)	2,993,956	1,049,450	532,716	19,955	(36,000)	(962,723)
9400 Collaboratives	293,249	(1,584)	80,431	-	-	6,572	-	204,662
TOTAL	5,255,316	(1,584)	3,835,995	1,357,050	621,007	37,321	(34,000)	(563,642)
								Less Tuition Pre-purchase (621,007)
								Less Circuit Breaker Additional Funds (405,015)
								Estimated Tuition Deficit/(Surplus) 462,380

Professional Services:

	Operating Salary	Operating Contractual	Operating Subtotal	Grant Contractual	Grand Total
Budgeted Resources	435,172	358,082	793,254	113,479	906,733
Projected Expense	<u>428,417</u>	<u>341,245</u>	<u>769,662</u>	<u>113,479</u>	<u>883,141</u>
Projected Surplus/(Deficit)	6,755	16,837	23,592	-	23,592

The professional services accounts provide funding for occupational and physical therapists, licensed clinical practitioners, home hospital tutors, translators/interpreters and other professionals hired to provide direct services to students. These accounts include both salary and contractual line items within the operating budget and in the special education entitlement (94-142) grant. The operating budget component is expected to be under budget by approximately \$23,592, based on currently known needs. Grant expenditures are expected to remain within budget, but be completely expended, for FY12.

Transportation:

The regular and special education contractual transportation accounts are projected to end the fiscal year with a net operational deficit of approximately \$9,477. This estimate reflects all known special education placements and settlement agreements affecting transportation. The cost of the in-house transportation program is not broken out below. Due to unanticipated demand for summer services, we will incur \$5,945 in additional driver expenses and approximately \$4,100 in additional fuel costs this year. (The FY13 budget includes additional funding for both of these line items.) All other program costs are expected to remain within budget.

	SPED	Regular	Total
Budget Resources	834,275	285,446	1,119,721
Projected Expenses	<u>866,418</u>	<u>262,780</u>	<u>1,129,198</u>
Projected Surplus/(Deficit)	(32,143)	22,666	(9,477)

Focusing on the SPED transportation account, we expected to run a deficit of \$32,143 for FY12, which reflects updated student needs. This estimate includes \$20,815 in transportation contingency expense, representing two remaining half-year placements.

The regular transportation contract is expected to generate a surplus of \$22,666, as a result of eliminating two Kindergarten mid-day buses in FY12. (The two KASE buses and minibus are being used to transport Kindergartners this year, which eliminates the need for two budgeted contract buses at \$16,934). Additionally, our existing buses – including one METCO bus – are being used to shuttle students between Newman School and the Pollard modular classrooms, in lieu of hiring additional contract buses to help with the re-location. (A total of \$21,615 had been planned to come from one-time funds for this purpose, which will not be spent.)

Legal Services:

The legal services account is expected to run a surplus of approximately \$36,425 during this fiscal year. This projected balance reflects both careful monitoring and the cost-conscious use of legal services throughout the fiscal year.

	FY12 Legal Services Total
Budget Resources	125,321
Plus Txfr In from SPED Tuitions	<u>34,000</u>
Revised Budget Resources	159,321
Projected Expense	<u>122,896</u>
Projected Surplus/(Deficit)	36,425

Use of Federal Ed Jobs Grant Funds:

The FY12 School operating budget assumes that some school staff will be funded by the federal Education Jobs grant, as a means of balancing the FY12 budget. The planned use of these funds is described below and include the \$7,381 in additional grant funds received after the beginning of the school year.

<u>Ed Jobs Grant</u>	FY12 Ed Jobs <u>Original</u>	FY12 Ed Jobs <u>Revised</u>
6.0 FTE Computer Technicians	340,345	347,726
4.4 FTE Teaching Assistants	160,555	160,555
SPED Tuition Expenditures	<u>-</u>	<u>-</u>
TOTAL	500,900	508,281

Use of Newman Relocation Funds:

The planned, actual and projected use of one-time funds to assist with the relocation of Newman students and the establishment of a 'Newman at Pollard' temporary campus are detailed below, for FY11 and FY12. Funding for these expenses comes largely from the pre-purchase of special education tuitions, as noted above. The FY12 costs are projections based on year-to-date information; these expenses may increase if additional needs are required to assist with the return move.

<u>FTE</u>	<u>Description</u>	<u>Department</u>	<u>Budget Recomm</u>	<u>Actual Cost FY11</u>	<u>Proj Cost FY12</u>	<u>TL</u>
	Additional Supervision Days - Media & Tech Director -Technology Relocation	Technology	-	2,376	-	2,376
	Library Pack/Move Assistance	Media/Newman	-	1,264	-	1,264
	Newman Office & Classroom Pack/Move	Newman Admin	-	4,491	2,323	6,814
	Technician Assistance for Technology Relocation	Technology/Newman	-	1,467	8,995	10,462
	Kindergarten Transportation Expenses (Newman at Pollard)	Transportation	21,615	-	-	-
	Kindergarten Transportation "Dress Rehearsal" - May 2011	Transportation	-	39	-	39
	Office Equipment - Newman at Pollard Temporary Office	Newman	-	-	4,032	4,032
	Science Center Pack/Move/Storage	Science Center	-	685	5,333	6,017
	Science Center Washer Dryer	Science Center	-	-	3,403	3,403
	Schedule: Addtl 15 Minutes/Day for 4 Preschool Tas/ ELC TA	Newman	-	-	3,422	3,422
	Hours - Increased CORI apps for Construction Workers	Personnel	-	572	-	572
0.19	1.0 FTE Office Aide (Newman Campus)	Newman	6,103	-	4,165	4,165
0.14	Temporary Dismissal Aide (Newman)	Newman	-	-	2,700	2,700
0.14	Temporary Dismissal Aide (Newman)	Newman	-	-	2,700	2,700
	Newman Relocation Coordinator	Newman	20,000	4,780	14,340	19,120
0.10	Newman Assistant Principal Expansion	Newman	-	-	10,154	10,154
-	Summer Supervision Days for Newman Assistant Principal	Newman	4,421	-	4,421	4,421
1.00	2.0 FTE Office Aides (Newman at Pollard)	Newman	22,791	-	20,270	20,270
0.60	Newman Office Aide, eff 11/30 (Tibma)	Newman	-	-	10,586	10,586
0.20	0.2 FTE Preschool Secretary Increase (Newman at Pollard)	SPED/ Preschool	6,577	-	6,517	6,517
-	Summer Supervision Days Preschool Coordinator	SPED/ Preschool	-	-	1,380	1,380
0.50	0.5 FTE Expanded Preschool Nurse	Nursing/ Preschool	38,902	-	38,902	38,902
-	Bookroom Setup Expenses (Newman at Pollard)	Reading/ Newman	6,420	3,569	-	3,569
	Kindergarten Picture Books (Newman at Pollard)	Media/ Newman	1,200	-	-	-
-	Nursing Supplies & Equipment (Newman at Pollard)	Nursing/ Newman	5,225	4,992	-	4,992
	0.125 FTE Physical Education Teacher (Newman at Pollard)	Phys Ed/ Newman	6,875	-	-	-
	Traffic Cones & Gear - Newman	Newman	-	808	546	1,354
	Newman Signs	Newman	-	-	528	528
-	Theater Arts Equipment Storage (Newman Construction)	Perf. Arts/ NHS	5,000	-	-	-
-	Temporary Media Center Setup (Newman Campus)	Media/ Newman	5,000	3,206	-	3,206
-	Smartboard and Projector for Pollard Lecture Hall (Newman at Pollard)	Media/ Pollard	-	-	-	-
2.87			150,129	28,249	144,716	172,965

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Educational Technology Center
Needham Public Schools

To: Dan Gutekanst, Superintendent
Anne Gulati, Director of Financial Operations

From: Deb Gammerman, Director of Technology and Innovation

RE: CIP FY13 – FY17 Technology Request Responses to Finance Committee Questions

Date: February 21, 2012

The objective of this document is to provide supplemental information requested by the Finance Committee related to the CIP FY13 – FY17 Technology Request. Previously the Finance Committee had requested and received a spreadsheet that details the FY13 computer replacement deployment by building, and within each building, by category of computer. That is, whether a computer is being allocated as a teacher/administrator machine, a student computer for a lab or laptop cart, or a student computer in a classroom. In addition to the information for FY13, the Finance Committee has requested equivalent information for the FY14 – FY17. Attached are spreadsheets that address this request. Please note, however, that these numbers are merely estimates. It is not possible to accurately project these numbers this far in advance. Each year there are a number of factors that result in an adjustment of these numbers. Factors include shifting needs and strategies of deployment, changing enrollments of staff and students as well as failed systems. That said, however, these numbers provide a sense of what is anticipated.

Thank you.

NPS Technology Replacement
FY '14 Deployment Schedule Estimates

FY 13-14	RE = Replacement		CPU = Computer											
Replacement														
	RE CPU	\$	RE CPU	\$	RE CPU	\$	E Printe	\$	E Serve	\$	RE Proje	\$	S/Softwar	Total
	ADMIN/TEACHER		LABS/LAPTOPS		CLASSROOM									
			(students)		(students)									
Bmeadow	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$0
Eliot	0	\$0	25	\$34,400	0	\$0	0	\$0	0	\$0	0	\$0		\$34,400
Hillside	3	\$3,300	26	\$28,600	0	\$0	0	\$0	0	\$0	0	\$0		\$31,900
Mitchell	2	\$2,200	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$2,200
Newman	2	\$30,800	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$30,800
High Rock	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$0
Pollard	5	\$5,500	149	\$136,900	0	\$0	0	\$0	0	\$0	0	\$0		\$142,400
Pollard w/ 1:1	5	\$5,500	59	\$64,900	0	\$0	0	\$0	0	\$0	0	\$0		\$70,400
NHS	108	\$118,800	92	\$102,100	0	\$0	0	\$0	0	\$0	10	\$8,000		\$228,900
NHS w/ 1:1	108	\$118,800	53	\$58,100	0	\$0	0	\$0	0	\$0	10	\$8,000		\$184,900
Admin. EG	8	\$11,200	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$11,200
District/ETC	0	\$0	0	\$0	0	\$0	0	\$0		\$38,000	0	\$0		\$38,000
OS (Lion) Rel													\$30,000	\$30,000
Total	128	\$171,800	292	\$302,000	0	\$0		\$31,400		\$38,000	10	\$8,000	\$30,000	\$581,200
Total w/ 1:1	128	\$171,800	163	\$186,000	0	\$0		\$31,400		\$38,000	10	\$8,000	\$30,000	\$465,200

NPS Technology Replacement
FY '15 Deployment Schedule Estimates

FY 14-15	RE = Replacement		CPU = Computer											
Replacement														
	RE CPU	\$	RE CPU	\$	RE CPU	\$	E Printer	\$	E Serve	\$	RE Proj	\$	OS/Software	Total
	ADMIN/TEACHER		LABS/LAPTOPS		CLASSROOM									
			(students)		(students)									
Bmeadow	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$0
Eliot	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$0
Hillside	4	\$4,400	25	\$27,500	0	\$0	0	\$0	0	\$0	0	\$0		\$31,900
Mitchell	3	\$3,300	26	\$28,900	0	\$0	0	\$0	0	\$0	0	\$0		\$32,200
Newman	5	\$5,500	26	\$28,600	7	\$7,700	4	\$0	0	\$0	0	\$0		\$41,800
High Rock	4	\$4,800	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$4,800
High Rock w/ 1:1	4	\$4,800	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$4,800
Pollard	4	\$4,400	116	\$102,000	0	\$0	0	\$0	0	\$0	0	\$0		\$106,400
Pollard w/ 1:1	4	\$4,400	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$4,400
NHS	30	\$33,000	136	\$147,900	66	\$72,600	0	\$0	0	\$0	10	\$8,000		\$261,500
NHS w/ 1:1	30	\$33,000	136	\$149,000	0	\$0	0	\$0	0	\$0	10	\$8,000		\$190,000
Admin. EG	8	\$11,200	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$11,200
District/ETC	0	\$0	0	\$0	0	\$0	0	\$0		\$40,000	0	\$0		\$40,000
OS (Lion) Rel													\$30,000	\$30,000
Total	58	\$66,600	329	\$334,900	73	\$80,300		\$16,400		\$40,000	10	\$8,000	\$30,000	\$576,200
Total w/ 1:1	58	\$66,600	213	\$234,000	7	\$7,700		\$16,400		\$40,000	10	\$8,000	\$30,000	\$402,700

NPS Technology Replacement
FY '16 Deployment Schedule Estimates

FY 15-16	RE = Replacement		CPU = Computer											
Replacement														
	RE CPU	\$	RE CPU	\$	RE CPU	\$	E Printer	\$	E Serve	\$	RE Proje	\$	S/Softwai	Total
	ADMIN/TEACHER		LABS/LAPTOPS		CLASSROOM									
			(students)		(students)									
Bmeadow	0	\$0	25	\$29,700	0	\$0	0	\$0	0	\$0	0	\$0		\$29,700
Eliot	2	\$2,200	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$2,200
Hillside	4	\$4,400	25	\$27,500	0	\$0	0	\$0	0	\$0	0	\$0		\$31,900
Mitchell	4	\$4,400	25	\$27,500	0	\$0	0	\$0	0	\$0	0	\$0		\$31,900
Newman	19	\$20,900	25	\$27,500	0	\$0	0	\$0	0	\$0	0	\$0		\$48,400
High Rock	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$0
Pollard	1	\$1,100	53	\$68,000	0	\$0	0	\$0	0	\$0	0	\$0		\$69,100
Pollard w/ 1:1	1	\$1,100	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$1,100
NHS	0	\$0	60	\$66,000	164	\$180,600	0	\$0	0	\$0	0	\$0		\$246,600
NHS w/ 1:1	0	\$0	0	\$0	123	\$135,600	0	\$0	0	\$0	0	\$0		\$135,600
Admin. EG	8	\$11,200	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$11,200
District/ETC	0	\$0	0	\$0	0	\$0		\$0		\$37,000	0	\$0		\$37,000
OS (Lion) Rel													\$30,000	\$30,000
Total	38	\$44,200	213	\$246,200	164	\$180,600		\$30,100	0	\$37,000	0	\$0	\$30,000	\$568,100
Total w /1:1	38	\$44,200	100	\$112,200	123	\$135,600		\$30,100	0	\$37,000	0	\$0	\$30,000	\$389,100

NPS Technology Replacement
FY '17 Deployment Schedule Estimates

FY 16-17	RE = Replacement		CPU = Computer											
Replacement														
	RE CPU	\$	RE CPU	\$	RE CPU	\$	E Printer	\$	E Serve	\$	RE Proj	\$	OS/Software	Total
	ADMIN/TEACHER		LABS/LAPTOPS		CLASSROOM									
			(students)		(students)									
Bmeadow	0	\$0	25	\$29,700	0	\$0	0	\$0	0	\$0	0	\$0		\$29,700
Eliot	0	\$0	26	\$29,700	0	\$0	0	\$0	0	\$0	0	\$0		\$29,700
Hillside	6	\$6,600	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$6,600
Mitchell	17	\$18,700	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$18,700
Newman	2	\$2,200	25	\$27,500	0	\$0	0	\$0	0	\$0	0	\$0		\$29,700
High Rock	34	\$38,400	26	\$28,600	0	\$0	0	\$0	0	\$0	0	\$0		\$67,000
High Rock w/ 1	34	\$38,400	34	\$37,500	0	\$0	0	\$0	0	\$0	0	\$0		\$75,900
Pollard	10	\$11,000	44	\$48,400	0	\$0	0	\$0	0	\$0	0	\$0		\$59,400
Pollard w/ 1:1	10	\$11,000	44	\$48,400	0	\$0	0	\$0	0	\$0	0	\$0		\$59,400
NHS	0	\$0	0	\$0	40	\$44,000	0	\$0	0	\$0	0	\$0		\$44,000
NHS w/ 1:1	0	\$0	0	\$0	10	\$11,000	0	\$0	0	\$0	0	\$0		\$11,000
Admin. EG	8	\$11,200	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0		\$11,200
District/ETC	0	\$0	0	\$0	0	\$0	0	\$0		\$38,000	0	\$0		\$38,000
OS (Lion) Rel													\$20,000	\$20,000
Total	77	\$88,100	146	\$163,900	40	\$44,000		\$5,450		\$38,000	0	\$0	\$20,000	\$359,450
Total w 1:1	77	\$88,100	154	\$172,800	10	\$11,000		\$5,450		\$38,000	0	\$0	\$20,000	\$335,350