



# The Edgartown School

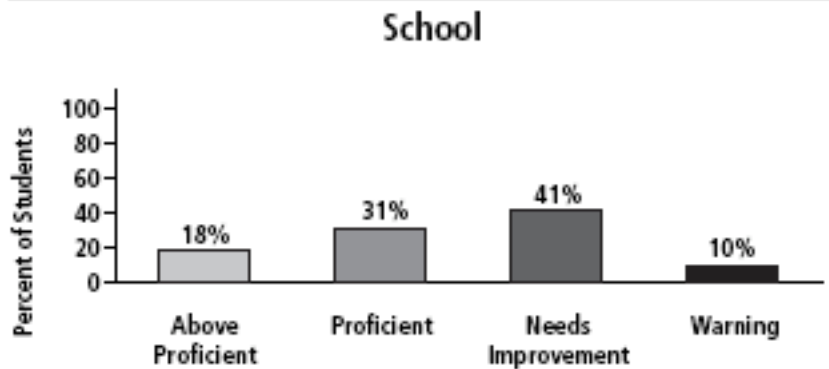
## MCAS Data Report Spring 2007

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**Edgartown School**  
**Grade 3 Language Arts: Reading Comprehension**

Cindy Smith  
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3<sup>rd</sup> Grade Teachers

**English Language Arts**



**I. Overview**

The spring 2007 grade 3 MCAS English Language Arts Reading Comprehension test was based on learning standards in the two content strands of the Massachusetts English Language Arts Curriculum Framework (2001). The MCAS Grade 3 ELA Reading Comprehension test included three separate test sessions. Each selection included selected readings, followed by multiple choice and open response questions.

Overall, our students scored 3% points higher than the state on Language Arts questions.

Our students scored 5% points higher than the state in Reading/Literature.

In looking at multiple-choice and open-response questions, we scored 4-8% higher than the state.

Half of our students need improvement!

Overall, our performance was weaker in 2007 than 2006.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	18	14	31	45	41	32	10	9	40
2006	11	18	39	40	48	34	2	8	46
2005	NA	NA	67	62	30	31	3	7	30
2004	NA	NA	51	63	49	30	0	7	39
2003	A	NA	67	63	33	30	0	7	36

Discussions/ Observations:

Our students scored under 70% on 1 out of 6 Language Arts questions and 12 out of 42 questions in Reading and Literature. Out of that, 70%, (more than half) of the questions were regarding nonfiction reading.

**II. Analysis of Performance by Grade and Test**

The test was comprised of 2 types of questions: multiple choice and open response. The multiple-choice questions address language and literature standards. Open response questions are based on reading selections.

Percentage of Possible Points Attained

	<u>Edgartown</u>	<u>State</u>
Multiple Choice	83%	79%
Open Response	66%	58%

**Performance by Question Type:**

There were forty questions on this test. Each of the forty questions addressed either a literature strand or a language strand. Seven of the total questions related to identifying basic facts (Standard 8) and thirty-two questions required students to make inferences from the text (For example, analyzing text for understanding, drawing conclusions, determining main idea, interpreting facts for understanding.) This reflects an emphasis on both the ability to read for basic understanding of a text and the ability to make inferences and support one's thinking with quotes from the text. Thirty-four of the questions were classified as literature questions and six of the questions were designated as language questions. The following chart represents the number of questions linked to each genre.

- Biography: 0 questions
- Drama: 0 questions
- Fiction: 5 questions
- Myths: 3 questions
- Non-Fiction: 12 questions
- Poetry: 3 questions

### Multiple Choice Questions

Approximately 30%, (13) of the multiple choice questions scored under 70% accuracy.

7 of those 13 questions were in nonfiction.

The list below shows how the "most missed questions" apply to the curriculum frameworks

<u>Question</u>	<u>Learning Standards</u>
#14	S13 Nonfiction
#17	S13 Nonfiction
#38	S16 Myth
#28	S15 Style/Language
#36	S13 Nonfiction
#34	S13 Nonfiction
#24	S13 Nonfiction

### Open Response Questions

Each open response question is connected to a literature standard and relates to a writing piece. On open response questions, students must compose short answers demonstrating their understanding.

There were two open response questions.

Each question is worth 4 points.

We scored 2.1 – 2.6 on both questions – just over 50%.

Our school's open response scores as compared to the state are as follows:

	<u>Edgartown</u>	<u>State</u>
#21	2.6	2.5
#33	2.1	2.1

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 10 students with special needs, which is approximately, 40% of the population.

#### Percent of Students with Disabilities

Performance Level	2007
Above Proficient	0%
Proficient	10%
Needs Improvement	70%
Failing/Warning	20%

#### Observations/Discussion

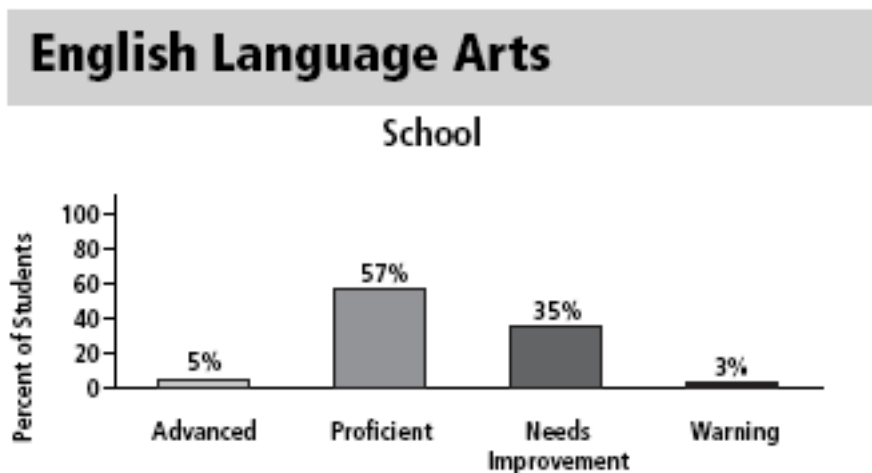
A great majority of the special education students need improvement. Only 1/10 of these students were proficient and none were above proficiency. Compared to the state, we have more special needs students who are in the needs improvement and warning categories and less proficient students than the state.

### IV. Recommendations

We need to make a plan for ways to teach more non-fiction reading.  
Summarizing and para-phrasing to determine the main idea in text is a need.  
Choose a few graphic organizers to focus on organizing ideas.  
Look at standardized test scores plus monitor progress over time.  
Use "Scholastic News" to focus on building skills.  
Meeting with grade levels to collaborate ideas.  
Non-fiction read aloud/books on tape would be helpful.

**Edgartown School**  
Grade 4 English Language Arts

Pat Herr  
Bridget Mello  
Megan McDonald  
4<sup>th</sup> Grade Teachers



**I. Overview**

These years Grade 4 Language Arts: Reading Comprehension required students to read six different genres. Students were asked to make inferences or determine importance in a text.

While it is difficult to compare one group of students to another, especially given the small sample sizes in the Edgartown School, last year's 4th graders scored significantly better than the previous year's 4th graders.

In 2007, all but one student passed the exam while 62% were above the cut off for Proficiency as compared to 56% of the other 4<sup>th</sup> graders across the state.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	5	10	57	46	35	34	3	10	38
2006	6	8	31	42	49	39	14	12	35
2005	0	10	29	40	61	40	11	10	38
2004	6	11	61	45	25	35	8	9	36
2003	6	10	62	45	32	34	0	10	34

Discussions/Observation

- Our strength on the Language Arts MCAS Test was in multiple-choice questions.
- The students scored well in the categories of basic facts, finding the main idea, and in making predictions.
- The students were able to identify elements of poetry and theme, and also showed an understanding of literary terms; plot, setting, characters, and problem/solution.
- Students also demonstrated a good understanding of text features.
- The errors in the Multiple Choice Questions generally focused in the two genres; non-fiction reading and dramatic reading.
- For non-fiction text, we need to strengthen our students' skills in reading maps/interpreting maps, determining fact vs. opinions, and finding the main idea.
- For dramatic readings, we need to teach students the meaning of parenthesis and other features of a play.

**II. Analysis of Performance by Grade and Test**

The test was comprised of 3 types of questions: multiple choice, open response and a writing prompt. The multiple choice questions address language and literature standards. Open response questions are based on reading selections. The long composition prompt is a narrative connected to a personal experience.

Percentage of Possible Points Attained

	<u>Edgartown</u>	<u>State</u>
Multiple Choice	82%	79%
Open Response	51%	51%
Writing Prompt	68%	70%

**Performance by Question Type**

**Multiple Choice.**

There were forty questions on this test. Each of the forty questions addressed either a literature strand or a language strand. There were thirty-six multiple choice questions. Seven questions addressed language standards and twenty nine addressed reading and literature standards.

We outscored the state 82% to 79% on multiple-choice questions. Our students performed well on these types of questions.

The list below shows how the “most missed questions” apply to the curriculum frameworks

<u>Question</u>	<u>Learning Standards</u>
#6	13-Non-fiction
#31	13-Non-Fiction
#40	17-Dramatic Literature
#5	13-Non-fiction
#27	13 Non-fiction

**Open Response Questions**

There were four open response questions with scores ranging from 0-4. Each open response question is connected to a literature standard and relates to a writing piece. On open response questions, students must compose short answers demonstrating their understanding.

Our students earned 51% of the possible points they could get. This is the same percentage as the rest of the state's 4<sup>th</sup> graders and a 6% increase from our 2006 scores. Open response questions are an area where our students can gain more points on the MCAS exam. We did note that every student attempted to answer the open response questions which is a strength in our student population.

Our school's open response scores as compared to the state are as follows (0-4 points possible)

<u>Question</u>	<u>Edgartown</u>	<u>State</u>	
#26	1.59	1.75	(Below the State)
#17	1.86	1.91	(Below the State)
#35	1.92	1.99	(Below the State)
#8	2.43	2.25	(Above the State)

We need to focus our instruction on responding to open-response questions. The students show understanding of the concepts in the multiple-choice questions, but when higher-level critical thinking is required they have trouble. We see going back to the text to find details and evidence that support their answers as a weakness.

**Writing Prompt**

The Writing Prompt assessed students on two aspects of composition.

Topic/Idea Development (CT), which included writing development, organization, use of detail, variety in sentence structure and language.

Use of Standard English Writing Conventions (CC), which included mechanics as well as usage and grammar.

The scoring range on CT is 2-12 and the scoring range on CC is 2-8

		<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
Topic/Idea Development (CT)	State	62%	61%	64%	63%	61%
	District	62%	58%	57%	56%	60%
Writing Conventions (CC)	State	78%	81%	80%	86%	83%
	District	77%	77%	75%	81%	80%

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 7 students with special needs, which is approximately, 18.9% of the population.

#### Percent of Students with Disabilities

Performance Level	2007
Above Proficient	1
Proficient	1
Needs Improvement	5
Failing/Warning	0

#### Observations/Discussion

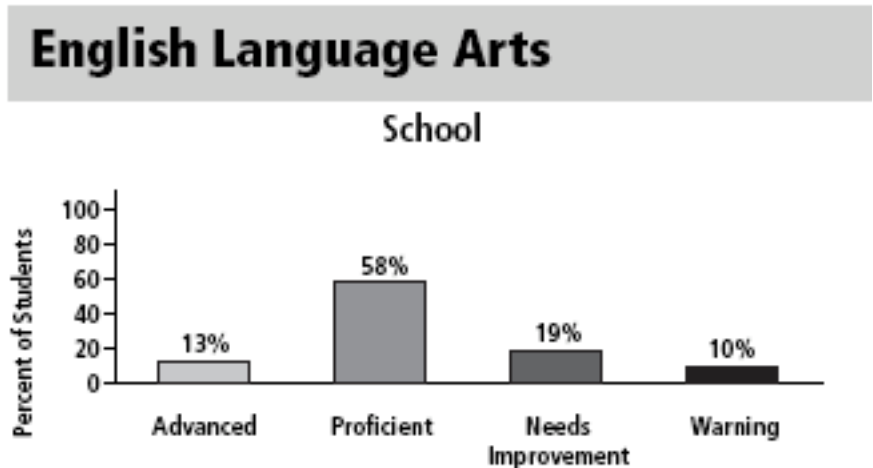
All of our special education students passed the ELA MCAS. While this is encouraging, most of the special needs students came in the needs improvement level.

### IV. Recommendations

- -Get and share anchor papers from the state for the Open-Response questions so students can see what an acceptable or high scoring response contains.
- -Model for students how to write an answer to an Open-Response question
- -Model for students how to reread for details and refer back to the text for supporting details for their answers.
- -Have students critique their own papers and peers' papers based on the state's criteria.
- -Teach test-Taking Skills:
  - Re-reading for details
  - Re-reading for evidence
  - Eliminating choices
  - Read open response questions prior to reading the selection, so students can have an idea of what they are going to have to answer.

**Edgartown School  
Grade 5 English Language Arts**

Debra Yapp  
5<sup>th</sup> Grade ELA Teacher  
Sandra Joyce  
4<sup>th</sup>-6<sup>th</sup> Grade Special Education Teacher



**I. Overview**

The Spring 2007 Grade 5 MCAS English Language Arts Reading Comprehension Test was based on learning standards in the two content strands of the Massachusetts English Language Arts Curriculum Frameworks.

The MCAS grade 5 ELA Reading Comprehension test included three separate test sessions. Each session included selected readings, followed by multiple choice and open response questions.

- There was improvement in both the Advanced and Proficient categories- an increase of 13 % in Advanced and 8% in Proficient from 2006.
- There was a significant decrease in Needs Improvement (28%) from 2006.
- Collapsed performance levels for Advanced and Proficient- the school out performed the state (School- 71%/ State- 63%)
- In multiple choice questions our performance matched the state @ 77%
- The school had stronger Reading/Literature scores than Language scores. The school was 12% below the state average in Reading /Lit and 1% below the state average in Language.
- The school was 4% below the state average on Open Response questions.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
<b>2007</b>	13	15	58	48	19	28	10	9	31
<b>2006</b>	0	15	50	44	47	31	3	9	38

Discussion/Observations

Changes from 2006 to 2007 test:

- The time of day of testing was changed from afternoons to mornings. Students seemed more alert and many spent a longer period of time completing the test.
- Students were proctored by their own grade level teachers.
- Breakfast was provided to all students prior to testing as well as gum and mints during testing.
- Hall monitors, (staff not involved with testing) were provided so that students could take restroom breaks as needed.
- Many students who scored in the Advanced and Proficient ranges spent significantly longer time taking the test, working carefully and thoroughly.

**II. Analysis of Performance by Grade and Test**

The test was comprised of 2 types of questions: multiple choice and open response. The multiple choice questions address language and literature standards. Open response questions are based on reading selections.

	Percentage of Possible Points Attained	
	<u>Edgartown</u>	<u>State</u>
Multiple Choice	77%	77%
Open Response	51%	55%

**Performance by Question Type:**

**Multiple Choice.**

There were thirty -six multiple choice questions. Five of these questions address the Language standard and twenty- nine questions address the Reading and Literature standard.

- The school met the state average of 77%
- Of the total number of questions, the students scored less than proficient on only 14% of the test questions, ( 5 out of 36).

The list below shows how the “most missed questions” apply to the curriculum frameworks

<u>Question #</u>	<u>Learning Standards</u>
29	S 13- Non Fiction
30	S 13- Non fiction
34	S 13- Non Fiction
35	S 4- Vocabulary

Observations/Discussion

- Of the 5 questions “most missed”, 4 out of 5 of these were from the same non-fiction story.
- Explicit, strategic instruction was provided in 2007, by content teacher, using questions from previous MCAS tests questions.
- A new K-5 reading series was purchased which aligned more closely with state curriculum frameworks. This series places a more focused emphasis on open response questions.

**Open Response Questions**

There were four open response questions with scores ranging from 0-4. Each open response question is connected to a literature standards and relates to a reading piece. On open response questions, students must compose short answers demonstrating their understanding.

- The school showed a dramatic improvement in answering Open Response questions compared to 2006. In 2006 the school earned a scores of 42 %, in 2007 a score of 51%( average number and percent of all points)
- Although much improved, the school was still 4 % below the state average of 55%.
- In looking at points earned per question ( range from 0-4 points possible), 60 % of students earned 1-2 points per question, 33 % earned 3-4 points, and 7 % left some open responses questions blank.
- All 4 Open Response questions asked the students to “Explain”, which may be vocabulary that teachers need to revisit.
- Students earned the lowest scores on the last open response question which was near the end of the test. 74 % of students received only 1-2 points for their response to this questions. Was there a ‘fatigue factor’?

Our school’s open response scores as compared to the state are as follows (points per question):

	<u>Edgartown</u>	<u>State</u>
# 9	2.39	2.14
#18	2.39	2.48
#27	2.10	2.18
#36	1.77	1.91
Overall (% of all possible points)	51 %	55%

#### Observations/Discussion

Explicit, strategic instruction was provided in 2007 by content teachers using questions from previous MCAS tests, as well as anchor papers provided by the state to help students better understand the scoring rubrics for open response questions.

A new K-5 reading series was purchased which aligned more closely with state curriculum frameworks. This series places a more focused emphasis on open response questions.

All four open response questions asked the students to “Explain”, which may be vocabulary that teachers to revisit.

Students earned the lowest scores on the last open response question which was near the end of the test. 74 % of students received only 1-2 points for their response to this question. Was there a ‘fatigue factor’?

Students experienced difficulty on a question that required referencing footnotes in one of the nonfiction reading selections.

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 7 students with special needs, which is approximately, 22% of the population.

#### Percent of Students with Disabilities

Performance Level	2007
Advanced	3%
Proficient	13%
Needs Improvement	6%
Failing/Warning	0

#### Observations/Discussion

-In 2007, all special education students were provided a 1:1 proctor who was familiar with them and their respective learning styles. Many students read aloud.

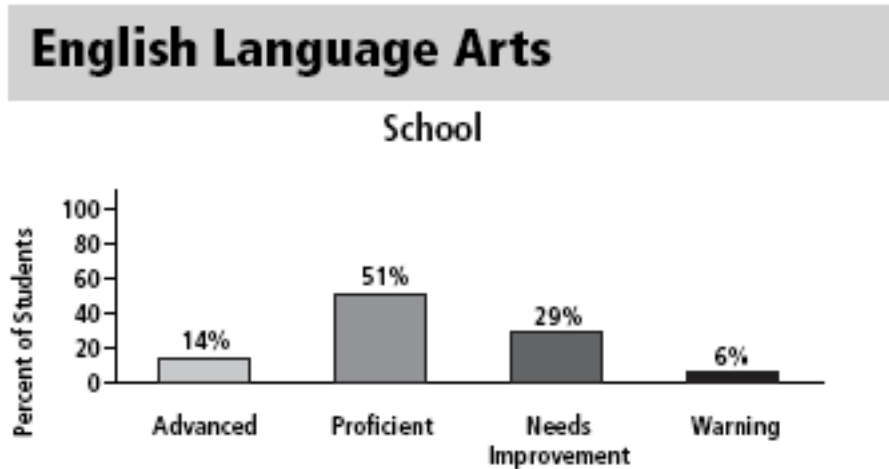
-More explicit, small group or 1:1 instruction needs to be provided for these students in answering Open Response questions in order to increase their scores (points per question) collectively into the 3-4 point range.

## **I.V Recommendations**

- Discussion is needed in regard to students who receive primary reading instruction outside of the classroom, (remedial/ special education/ LEP) and their participation in the classroom reading program and the instruction provided in reading and responding to MCAS practice questions from previous years.
- Continue the following:
  - Proctoring by classroom teachers
  - Use of “sensory incentives” such as mints, etc; during testing
  - Serving breakfast/snack to all students
  - Use of hall monitors to enable restroom breaks as needed
  - Provide bottled water for students
- To supplement nonfiction reading/writing in the grade level reading curriculum, the content teacher is using Time For Kids magazine and accompanying reading/writing activities.
- Continue to work with the consultant for our reading series to receive information and recommendations on optimizing the various components of the program.
- Provide students with more opportunities to “publish” their nonfiction writing (school websites, newsletters, etc ;)
- Expose students to more nonfiction writing and open responses with footnotes and the interpretation/ application of these footnotes.
- Provide more opportunities for students to practice “explaining” answers to Open Response questions, using anchor papers from the state as guides.
- Re-establish the position of full time reading coordinator for struggling readers and writers in order that they can receive more explicit instruction. For 2006 and 2007 there have been students “flagged” (poor performance on MCAS and/or Gates MacGinitie reading test) to receive this help, but due to the part time nature of the position, not all of these students were able to have this opportunity.

**Edgartown School  
Grade 6 English Language Arts**

Catherine MacDonald  
6<sup>th</sup> Grade ELA Teacher



**I. Overview**

The Spring 2007 Grade 6 MCAS English Language Arts Reading Comprehension Test was based on learning standards in the two content strands of the Massachusetts English Language Arts Curriculum Frameworks.

The MCAS grade 6ELA Reading Comprehension test included three separate test sessions. Each session included selected readings, followed by multiple choice and open response questions.

Fourteen percent of the 6<sup>th</sup> graders at Edgartown School fell within the advanced range compared to 9% at the state level. This was a 6% increase from the sixth graders in 2006. Fifty-one percent scored within the proficient range of whom 20% were in the top half of this range. Therefore, 65 percent of the students scored within the advance/proficient range compared to 67% at the state level. Twenty-nine percent of the students scored within the Needs Improvement range of whom 20% were within 4 points of proficient. At the state level, 26% scored Needs Improvement. Six percent of the students scored within the Warning range (same as state) of whom all were within 4 points of the Needs Improvement range.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	14	9	51	58	29	25	6	7	35
2006	8	10	54	54	36	28	3	8	39

Discussions/ Observations:

The limited sample of 35 students at Edgartown School compared to 72,887 students at the state level skew the statistics and question the reliability and validity of comparing such population sizes. Five students scoring at the Advanced level at Edgartown School is 14%, whereas it would take 10,412 students at the state level to be 14%. Four of those students received 262 which is only 3 points higher than Proficient, therefore it becomes obvious how easily the percentages can change in moving students from one category to another with such small numbers.

**II. Analysis of Performance by Grade and Test**

This assessment was comprised of 2 types of questions: multiple choice and open response. The multiple choice questions address language and literature standards. Open response questions are based on reading selections. There are five multiple choice questions addressing the Language standard and twenty-nine questions address the Reading and Literature Standard.

Percentage of Possible Points Attained

	<u>Edgartown</u>	<u>State</u>
Multiple Choice	29.99	28.43
Open Response	8.33	8.65

**Performance by Question Type**

**Multiple Choice**

There were thirty six multiple choice questions. Five of these questions address the Language Arts standard and twenty-nine questions address the Reading and Literature Standard.

The multiple choice questions are related to either Reading and Literature (31) or Language Arts (5 points). The students answered 31 multiple choice questions based on texts spanning many genre including: fiction, nonfiction, poetry, and science fiction as well as 4 open response questions. All Language Arts questions pertained to understanding the meaning of vocabulary words within context. On the multiple choice, Edgartown sixth graders scored 75% of all possible points which was the same as the state. The students who scored within the Advanced range in ELA correctly answered 95% of the multiple choice questions correctly. The students who scored in the Proficient range scored 84% of possible points. Those students in the Needs Improvement and Warning ranges scored 59% and 35% of possible scores respectively

The list below shows how the “most missed questions” apply to the curriculum frameworks.

<u>Question</u>	<u>Learning Standards</u>
# 6 (multiple choice Lit.)	6.13 (Nonfiction)
# 16 (multiple choice Lit.)	6.14 (Poetry)
# 29 (multiple choice Lit.)	6.13 (Nonfiction)
# 31 multiple choice LA	6.4 (Vocabulary & Concept Dev.)

Observations/Discussion

The most missed questions on the multiple choice for sixth graders at the Edgartown School were those that were most missed at the state level as well. These included standards on nonfiction and poetry. On the standard 6.15 (style and language), Edgartown sixth graders did significantly better than the state (item # 17, .80 compares to .58). In examining the sixth grade errors in the multiple choice questions, it is noticed that many of the errors were due to either word association or students given a literal response rather than looking at it in an abstract way. In the word association errors, students made a word association between a word in the passage and a word in the question without being more reflective about the content and the question that was being asked. Some questions were more abstract and students gave a more literal answer. It may be that some students' learning styles are literal, others may be literal developmentally.

### **Open Response Questions**

There were four open response questions with scores ranging from 0-4. Each open response question is connected to a literature standards and relates to a reading piece. On open response questions, students must compose short answers demonstrating their understanding.

Edgartown School students received 51% of all possible points in the open response questions compared to 55% at the state level. The students who scored within the Advanced range at the Edgartown School scored 81% of possible points. Those at the Proficient, Needs Improvement, and Warning ranges scored 59%, 42% and 24% respectively.

Our school's open response scores as compared to the state are as follows

	<u>Edgartown</u>	<u>State</u>
#9	2.51	2.24
#18	1.71	1.86
#27	1.97	2.09
#36	2.14	2.46

### Observation/Discussion

Open response questions require students to respond in short essay format to literature. This year the students responded to two nonfiction pieces, a poem, and a fiction narrative. Building writing fluency in response to literary prompts within the sixth grade ELA class remains an ongoing goal. Addressing writing across content subjects may boost students' proficiency in these areas, especially nonfiction writing. The state scored slightly higher on open response questions as compared to Edgartown School. The majority of students are getting scores of 1 and 2 points rather than 3 and 4 points. Direct instruction must be provided to the sixth grade students in responding to open response questions. Intensive direct instruction in responding to open ended questions must be provided to those students who are most challenged in responding to these types of questions.

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 10 students with special needs, which is approximately, 29% of the population.

#### Percent of Students with Disabilities

Performance Level	2007
Above Proficient	0
Proficient	50
Needs Improvement	40
Failing/Warning	10

#### Observation/Discussion

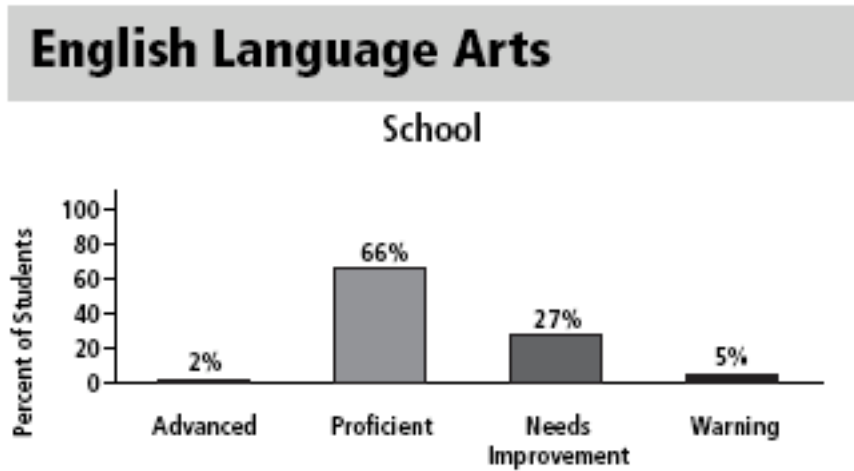
Fifty percent of the students who are identified as having special needs at the Edgartown School scored within the Proficient range compared to 26% at the state level. Forty percent of Edgartown special needs students scored within the Needs Improvement range compared to 45% at the state level. Ten percent of Edgartown special needs students scored Warning compared to 28% at the state level. Overall, the students with special needs at the Edgartown School scored significantly higher than the state average (90% above a Warning compared to 72%).

### IV. Recommendations

- Provide intense literacy support to the at-risk non-special needs students at the sixth grade level.
- Regardless of content subject taught, all teachers at sixth grade are also considered literacy teachers.
- Explicitly teach nonfiction text structure to sixth graders.
- Provide opportunities for sixth grade teachers to discuss teaching literacy across the curriculum.
- Provide additional time in the schedule for ELA instruction at the sixth grade level.
- Workshops be provided to parents to discuss the sixth grade ELA frameworks in more depth and request specific supports that could be provided at home in helping students be more accomplished in sixth grade ELA expectations.
- Increase remedial services in reading and writing. One time per week for reading, especially when taken out of the ELA class, is not sufficient to address the literacy skills of our at-risk students.
- The fifth, sixth, seventh/eighth grade teachers be provided release time during the school day to discuss the ELA curriculum at each grade level and collaborate on areas of focus as indicated by MCAS results and best practices.
- Content teachers and ELA teachers at Edgartown School (grades 5-8) meet with Assistant Superintendent for Curriculum and Instruction to begin a discussion about literacy across the curriculum. All teachers are literacy teachers and need to provide direct instruction of the structure of their reading content in their subject area (texts, handouts) and collaborate on practices for nonfiction writing. The writing that is required in the content subjects is a great opportunity for students to generalize the writing skills that they are learning in their ELA classes into authentic practice in nonfiction writing.

**Edgartown School  
Grade 7 English Language Arts**

Moira Silva  
7<sup>th</sup> and 8<sup>th</sup> Grade ELA Teacher  
Deborah Mello  
5<sup>th</sup>-8<sup>th</sup> Grade Reading Specialist



**I. Overview**

The grade 7 MCAS English Language Arts Test was presented in the following two parts:

- ⌚ The ELA Composition Test, which was used as a writing prompt to assess learning standards from the Massachusetts English Language Arts Curriculum Framework's Composition strand.
- ⌚ The ELA Reading Comprehension tests, which used multiple choice and open response questions to assess learning standards from the Curriculum Framework's Language and Reading Literature standards.

Seventh grade students performed close to the state average overall. The state average was 51.66 and seventh graders scored 51.20 overall. Students who need extra support in reading and writing were identified previous to the MCAS and offered support services. Those students who scored in the Needs Improvement or Warning categories last year received support services through special education or the English Language Learning lab, and are presently receiving remedial reading support this year (the reading service was not available for these students last year).

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	2	9	66	60	27	23	5	8	41
2006	0	10	73	55	15	26	12	9	33
2005	3	10	64	56	33	27	0	7	39
2004	5	9	76	59	18	25	0	7	55
2003	0	8	63	57	32	28	5	7	38

Discussion/Observation

The advanced statistics for the school appears stable, as does the proficient category. When added together, advanced and proficient for 2007 total 68%, as compared with 63% in 2003. Some improvement noted while Needs Improvement with Warning together totaled 37% in 2003 and now totals 32%. Again, some improvement noted. The number of students taking the test has varied only slightly.

**II. Analysis of Performance by Grade and Test**

The assessment requires students to demonstrate literacy proficiencies by writing an informational, long composition based on a writing prompt., 26 multiple choice questions based on texts spanning many genre, as well as four open response short essays. The following table represents our student's level of proficiency within different types of response formats.

Average of Possible Points Attained

	<u>Edgartown</u>	<u>State</u>
Writing Prompt	12.76	13.3
Multiple choice	30.06	29.38
Open Response	8.38	8.98

**Performance by Question Type:**

Writing Prompt Item type	<u>Edgartown</u>	<u>State</u>
Topic Development	6.49	7.02
Writing Conventions	6.27	6.28

The writing prompt assesses students' skills at writing in an informational mode that shares knowledge and conveys instructions, messages and ideas. The writing prompt assesses two areas of composition: Topic/Idea development, which includes writing development organization, use of detail, and sentence and language variety, in addition to the usage of Standard English conventions, which include mechanics as well as usage and grammar. Students are scored between 2-12 points for topic development and 2-8 for conventions.

Based upon reading the statistics (and not the writing samples), one can see that for the long composition, our students were .01 lower than the state average for conventions. They were .53 lower than the state average in the area of topic development. The school writing instruction focuses on the national program called "6 Traits". This means that students receive writing instruction in critical areas such as voice sentence fluency and style (across many genres) which are not a part of the MCAS scoring criteria. Because of this, their writing strengths are not all show-cased on the test. Students should be instructed to focus more on topic development than the 6 Traits areas for the MCAS long composition.

Observation/Discussion

Topic development continues to be our area of concern. Students need explicit instruction on how to expand their thinking on a topic. Clear and high expectations are needed. Instruction in conventions meets the state average. Focus should be on topic development at this level.

### Multiple Choice

The multiple choice questions are related to either Reading or Literature (36 questions) or Style and Language (4 questions) strands of the ELA Curriculum Framework.

Last year, Language accounted for 5 of the 36 questions and Reading/Language accounted for the remaining 31 questions based from the state frameworks. Students in our school performed at 30.06 while the state average was 29.38. The reading passages included challenging vocabulary, like: baying, impair, neurotoxin, incinerator, emission, consumption, ecstatic and prostrate. Some of the non-fiction questions were particularly difficult for these students.

The list below shows how the “most missed questions” apply to the curriculum frameworks:

Question	Learning Standards
# 2	I5-Style and Language
# 5	I3-Non-fiction, Identify, Analyze
# 2	I4-Poetry

#### Observation/Discussion

Poetry appears to be challenging for our students as they grow from being literal thinkers into inferential thinkers. Increased use of non-fiction materials should be a focus. Our students scored well on the multiple choice section out performing the state averages.

### Open Response Questions

Open response questions (4 points each) require students to respond in short essay format to a piece of literature.

It is difficult to comment on student performance without seeing their actual answers. I suspect that students' open response questions lacked a full enough development. If a passage provided five possible pieces of evidence or did not include enough direct quotations as evidence.

Our school's open response scores as compared to the state are as follows:

	<u>Edgartown</u>	<u>State</u>
#9	2.12	2.22
#18	2.29	2.56
#27	2.02	2.13
#36	1.95	2.07

#### Observations/Discussion

Edgartown students perform near state average on open response questions. While there are a possible four points our students appear to capture slightly better than half of the four. Our school should continue to make writing a priority in all areas of the curriculum.

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 8 students with special needs, which is approximately, 19% of the population.

Percent of Students with Disabilities

Performance Level	2007
Above Proficient	0
Proficient	1
Needs Improvement	6
Failing/Warning	1

Observations/Discussion

It speaks well for the special education program that 6 students, or the majority, scored Needs Improvement. Only one student received a warning and one scored proficient. Some students may need alternative assessments

**IV. Recommendations**

Procedural Recommendations

It would be helpful to allow teachers release time so they can collaborate to address the following:

- Read all long compositions.
- Study data.
- Discuss observations and pedagogy.
- Design instructional approaches.
- Plan related lessons with teachers at grade level and above and below grade level.
- Coordinate remedial services.
- Examine trends.
- Read each passage and complete open response and multiple choice questions.
- Examine test vocabulary and set-up and then create instructional approaches to.
- Improve students understanding.
- Attend professional development workshops together to expand understanding of test criteria.

Classroom Recommendations

Teachers should continue to provide instruction in learning test – taking strategies.

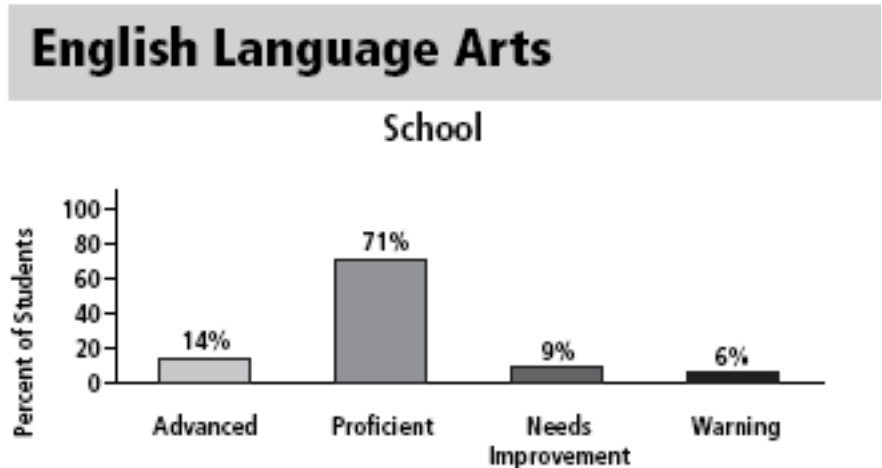
- Students should understand that their writing focus on the MCAS is unique.
- Topic development is greatly valued on the open response and long composition.
- Spelling and grammar do not earn points on the open responses.
- Students should be instructed not to leave any answers blank.

Teachers should use state provided samples as a resource for modeling state expectations.

Note: Providing students with samples to score and then giving students state assigned score may increase student awareness of expectations. Continue to focus on non-fiction writing. Increase the amount of time spent on poetry and literary devices.

**Edgartown School  
Grade 8 English Language Arts**

Moira Silva  
7<sup>th</sup> and 8<sup>th</sup> Grade ELA Teacher  
Deborah Mello  
5<sup>th</sup>-8<sup>th</sup> Grade Reading Specialist



I. Overview

The 8<sup>th</sup> grade class performed well on this exam. On the majority of questions students were above or equal to the state average. The composite performance index is 94.4, the highest in local K-8 schools for any subject. These students demonstrated a high level of proficiency as readers and writers. Some students do need intervention to improve in these areas. Sixteen percent of students placed in the Needs Improvement and Warning categories. Open responses were above the state average.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	14	12	69	63	8	18	8	6	36
2006	5	12	76	62	18	19	0	7	38

Discussions/Observations

Performance in 2007 increased by 14% in the Advanced category. This is a jump from the previous year's 5% in this category. It is unclear as to why there is an increase from 0 to 8% in warning. These students may need alternate assessments.

**II. Analysis of Performance by Grade and Test**

The assessment requires students to demonstrate their literacy proficiencies by responding to 36 multiple choice questions based on texts spanning many genre, as well as four open response short essays. The following table presents levels of students' proficiency writing different types of response formats.

Average of Possible Points Attained		
	<u>Edgartown</u>	<u>State</u>
Multiple choice	30.41	28.29
Open Response	9.5	9.27

**Performance by Question Type:**

**Multiple Choice.**

The multiple 36 choice questions are related to either the Literature of Language strands of ELA State Frameworks. The majority are literature based with only 5 questions targeting the language strand.

Last year, Language accounted for 5 of the 36 questions and Reading/Literature accounted for the remaining 31 questions based from the state frameworks. Students scored above the state average on all multiple choice questions, except for five questions. These questions were based on the following strands; 13. Non-fiction, 14. Poetry and 16. Myth, traditional, narrative and classical literature. Last year, reading passages were quite challenging and included vocabulary such as; argot, garish, dubious, levity, idiosyncrasies, indubitably and proliferation.

The list below shows how the “most missed questions” apply to the curriculum frameworks

<u># of Question</u>	<u>Learning Standards</u>
2	13 – non-fiction – identify, analyze, structure, elements
2	14 - poetry
1	16 – myth, narrative, classical, literature

**Observations/Discussion**

In question 2, it asks what is “implied” by an action. Students are still challenged by inferential thinking at this level. More emphasis needs to be placed on higher level thinking skills and time for linking and making connections with their thinking.

**Open Response Questions**

Open response questions (4 points each) require students to respond in short essay format to a piece of literature.

Student's average responses were 2.37 out of 4 points. It is difficult to comment on their performance without seeing their actual answers. I suspect that students' open response questions lacked a full enough development. For example, if there were four reasons why sanitation workers have developed their own slang (#36), some students may have only given two reasons or not provided quotations from the text.

Our school's open response scores as compared to the state are as follows:

	<u>Edgartown</u>	<u>State</u>
#8	2.41	2.35
#20	2.15	2.2
#28	2.65	2.38
#36	2.29	2.34

Observations/Discussions

Students' open responses are on par with state averages. Students in general are only giving slightly more than half of the information and development of their anticipated responses. Students will gain better mastery of writing and thinking skills when they are given increased opportunities and expectations are raised.

**III. Analysis of Identified Subgroup Performance**

Special Needs Students

The test was administered to 8 students with special needs (not including the student who completed an alternate assessment), which is approximately, 23% of the population.

Percent of Students with Disabilities

Performance Level	2007
Above Proficient	0
Proficient	5
Needs Improvement	2
Failing/Warning	1

Observations/Discussion

Eighth grade special needs students scored well within Proficient and Needs Improvement. Only one student received a warning. More students may benefit from the alternative assessment.

#### **IV. Recommendations**

Procedural Recommendations:

Teachers need release time so they can collaborate to address the following:

- Study data.
- Design instructional approaches.
- Plan related lessons with teachers at grade level and above and below grade level.
- Coordinate remedial services.
- Examine test vocabulary and set-up and then create instructional approaches to improve students' understanding.
- Attend professional development workshops together to expand their understanding of test criteria.

Classroom Recommendations:

Teachers should continue to provide instruction in learning and test-taking strategies.

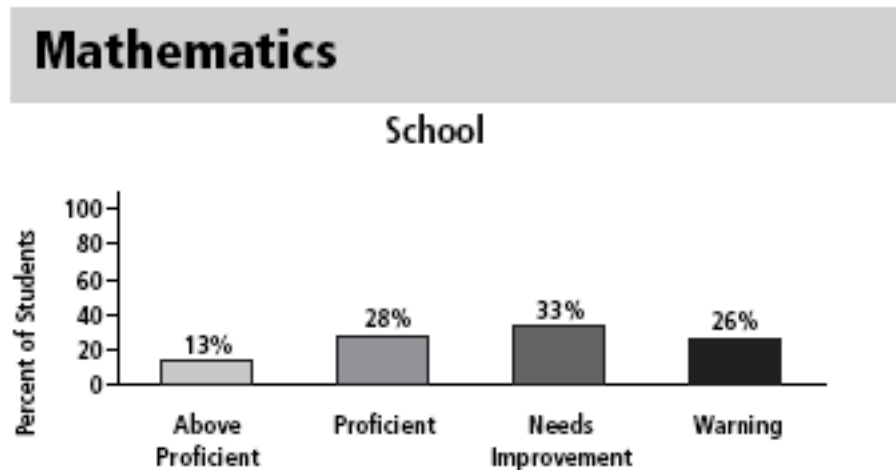
- Students should understand that their writing focus on open responses for the MCAS is unique. (i.e. content is the focus—grammar and spelling do not count).
- Students should be instructed not to leave any answers blank.
- Students need explicit instruction in topic development, providing proof and supporting evidence in greater detail.

Note: When the state selects passages with copyright restrictions, this means teachers cannot access those reading passages. Therefore, test results are even more challenging to interpret. This is a reference to the material "Gilgamesh – Book three" excerpt which cannot be accessed due to copyright and included questions 15-19.

**Edgartown School  
Grade 3 Mathematics**

Cindy Smith  
Alicia Knight  
3<sup>rd</sup> Grade Teachers

The spring 2007 grade 3 MCAS Mathematics test was based on learning standards in the Massachusetts Curriculum Framework 2000.



**I. Overview**

Overall, 41% of our 3<sup>rd</sup> graders scored Proficient or above, while 60% of 3<sup>rd</sup> graders in the state scored Proficient or above. We need to work to move more students from Warning and Needs Improvement to the Proficient level. Overall we need improvement in all areas in mathematics. The only areas we scored above the state, was in data analysis, statistics and probability.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	13	19	28	41	33	24	26	16	40
2006	0	4	33	48	43	32	24	16	46

Discussions/Observations

Five out of the eleven problems that were difficult for these 3<sup>rd</sup> graders were regarding number sentences. We scored 15% below the state in number sense and operations. This is a weak point and needs to be focused on.

**II. Analysis of Performance by Question Type**

The Grade 3 MCAS for 2007 consisted of a total of 35 questions, including 25 multiple choice questions, 5 short answer questions, and 5 open response questions. All of the questions were created around the 5 major content standards.

Math Content Strands	Number of Questions
Number Sense and Operations	13
Patterns, Relations and Algebra	7
Geometry	4
Measurement	4
Data Analysis, Statistics and Probability	7

The following table describes the breakdown of student by question type. It is important to recognize that both the open response and short answer sections consist of only 5 questions each. Therefore a slight shift in performance appears larger statistically.

Question Type	Grade 3	2006	2007
Multiple Choice	District	70%	74%
	State	79%	78%
Short Answers	District	68%	64%
	State	71%	73%
Open Response	District	68%	64%
	State	73%	73%

**Performance by Question Type:  
Multiple Choice**

We scored 4% below the state average. On 11 out of the 25 multiple choice questions, these third graders scored 70% or below.

The standard that represents the highest level of difficulty is number sense and operations. Out of 13 number sense questions we scored below 70% on 5.

**Observations/Discussion**

We need to teach number sense and operations more in depth because these students are not internalizing concepts in the strand. Subtraction, rounding and estimating are difficult concepts for these students

### Short Answer

Our students scored 64% in comparison to 73% scored by the state. The students scored 80% on the geometry short answers and below 50% on number sense and operations questions.

Number Sense and Operations were the standard that represented the highest level of difficulty for the majority of our students.

#### Observations/Discussions

The most difficult item was in number sense and operations asking students to compute the product of 2 numbers. The concept of 2 digit multiplication scored below 50%.

### Open Response Questions

Students scored 9% below the state on open-response questions. Out of 5 questions, we scored between 50% - 75%.

Measurement, number sense and geometry are the standards that represent the highest level of difficulty for the majority of the students.

#### Observations/Discussion

Elapsed time – we scored 50%. This standard showed the highest level of difficulty for students. Both short answer questions and open response questions were equally challenging.

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 10 students with special needs, which is approximately, 25% of the population.

Performance Level	2007
Above Proficient	0
Proficient	10
Needs Improvement	70
Failing/Warning	20

#### Observations/Discussion

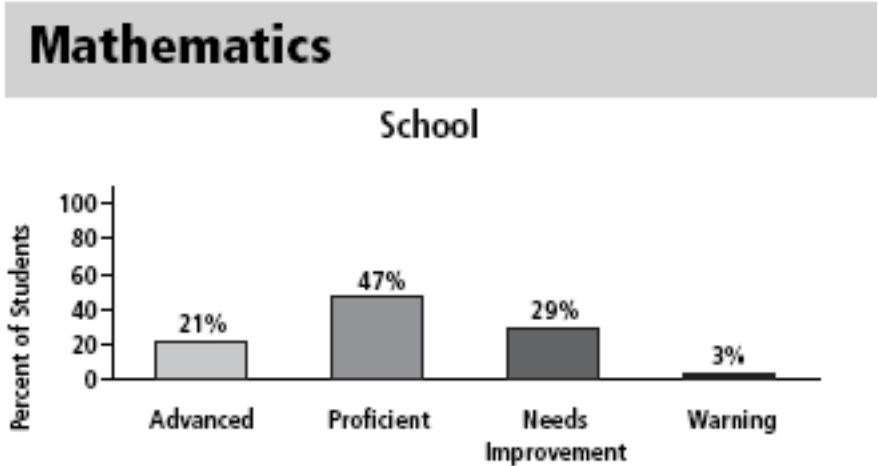
70% of students need improvement. We need to work toward moving those students to proficiency.

A high percentage of students in this class have learning disabilities and other needs which make with their performance on MCAS testing challenging.

#### **IV. Recommendations**

- The math support professional should continue to work to help students and teachers of students who “need improvement” and help move them to “proficiency” instead of the heavy focus on “warning”.
- Grade level planning time alone and with support staff to discuss teaching strategies and looking at student work is needed.
- Planning time to look at new math program and discuss teaching strategies with other professionals is needed.
- The new program seems to have a heavy focus on number sense and operations. We must continue to fully implement the new math program.
- Practice problem solving.
- Practice short answer and open response questions.

**Edgartown School**  
**Grade 4 Mathematics**  
 Pat Herr  
 Bridget Mello  
 Megan McDonald  
 4<sup>th</sup> Grade Teachers



The Spring 2007 grade 4 MCAS Mathematics test was based on learning standards in the Massachusetts Curriculum Framework 2000.

**I. Overview**

Our 2007, 4<sup>th</sup> graders performed well in comparison to our 2006 scores and the state average.

- ⌚ Our scores in the Advanced category were 18% higher than last year.
- ⌚ We had a 26% increase in the Proficient category.
- ⌚ We had a 33% decrease in Needs Improvement and a 12% decrease in Warning.
- ⌚ Overall, we scored under 70% on only 6 questions.
- ⌚ We scored below the State on 2 questions.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
<b>2007</b>	21	19	47	29	29	39	3	13	38
<b>2006</b>	3	15	20	25	63	45	14	15	35
<b>2005</b>	3	14	24	27	55	44	18	15	38
<b>2004</b>	11	14	28	28	53	44	8	14	36
<b>2003</b>	6	12	29	28	51	43	14	16	35

Discussion/Observation

Our students need a deeper understanding of multiplication and division.  
 We need to increase our students' comfort level and understanding of measurement (area, perimeter, converting units, etc.).  
 Students need to work on reading and re-reading the problems to have an understanding of what they are being asked to solve.

**II. Analysis of Performance by Question Type**

The Grade 4 MCAS for 2007 consisted of a total of 35 questions, including 25 multiple choice questions, 5 short answer questions, and 5 open response questions. All of the questions were created around the 5 major content standards.

Math Content Strands	Number of Questions
Number Sense and Operations	16
Patterns, Relations and Algebra	8
Geometry	4
Measurement	3
Data Analysis, Statistics and Probability	8

The following table describes the breakdown of student by question type. It is important to recognize that both the open response and short answer sections consist of only 5 questions each. Therefore a slight shift in performance appears larger statistically.

Question Type	Grade 3	2006	2007
Multiple Choice	District	70%	74%
	State	72%	71%
Short Answers	District	61%	76%
	State	68%	70%
Open Response	District	56%	64%
	State	56%	61%

**Performance by Question Type:  
Multiple Choice**

We scored higher than the state on 3% of the questions.  
 We scored only 100% on one question.  
 Within the 5 Major Math Content Strands, we outscored the state in all except for measurement.

In the multiple choice questions, there is not one standard that creates more difficulty. The scores are pretty evenly divided among the 5 content standards.

Observation/Discussion

The students are having more difficulty with understanding what the questions are asking them to solve or calculate than a weakness in one specific standard.

**Short Answer**

In the Short Answer problems, we averaged 76% correct, where the state averaged 70%. We outscored the state on 4 out of the 5 questions.

The following standard represented the highest level of difficulty for our students: 4.P.3 Determine the value of variables in simple equations.

Observation/Discussion

Strengths:

Question #11; we outscored the state by 15%, Question #12 we outscored the state by 20%, we outscored the state by 9% on Question 28, and we outscored the state by 27% on Question #29.

These Standards are as follows:

4. P. 1-Create describe, extend and explain symbolic and numeric patterns, including multiplication patterns.

4.N.13 –Divide up to a 3-digit whole number with a single digit divisor accurately and efficiently.

4.D.3- Construct, draw conclusions, and make predictions from various representations of data sets, including tables, bar graphs, pictographs, line graphs, and tallies.

4.N.10-Select and use appropriate operations to solve problems, including those using money.

Weakness- We were outscored by the state 11% on question 30.

Standard 4.P.3- Determine the values of variable in certain equations.

**Open Response Questions**

Out of a possible 4 points on 5 open response questions, students had an average score of 2.7 points.

We outscored the state on 3 of the 5 questions.

Our strength was standard 4 D. 3 which is construct, draw conclusions, make predictions from various representations of data sets including tables, bar graphs, pictographs, line graphs, line plots, and tallies.

The following standards represented the highest level of difficulty for the majority of our students: 4.P.4- Use pictures, models, tables, charts, graphs, words, number sentences, and mathematical notations to interpret mathematical relationships.

4.G.2-Describe model, draw, classify 3-dimension shapes, e.g. circles, polygons-especially triangles and quadrilaterals-cubes spheres, and pyramids.

Observations/Discussion

We outscored the state 14% on question #10, 9% on question #27 and 6% on question #31.

The state outscored us on questions 13 and 17 by 4%.

We need to work on responding to open-ended math questions.

We need to focus more on standards 4.P.4 and 4.G.2.

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 7 students with special needs, which is approximately, 20% of the population.

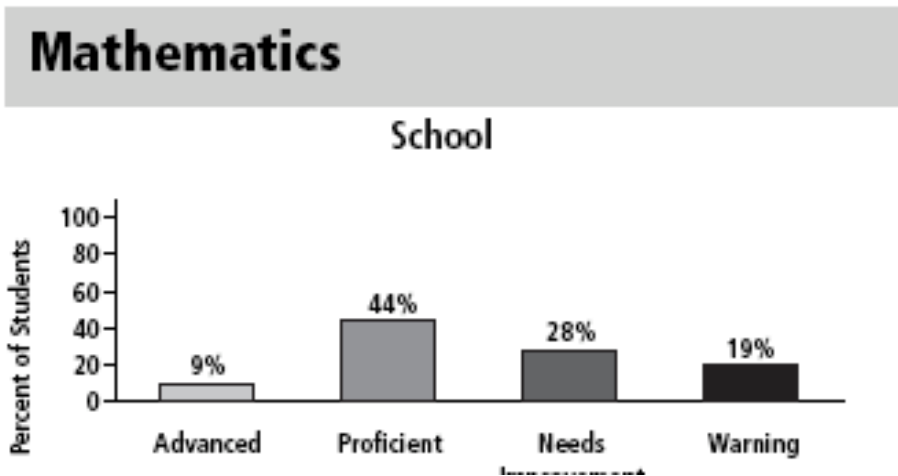
Performance Level	2007
Advanced	0
Proficient	2
Needs Improvement	3
Warning	2

### IV. Recommendations

- Implement all aspects of Houghton Mifflin Math *Expressions*, which is a standards based program.
- Address the weaknesses we found in students responding to open response questions.
- Use the G-MADE to assess student progress, and to detect the need for reinforcement of skills and early intervention.
- Continue with school-wide Morning Math games and Estimation Station. (Family Math Night).
- Use the Math Specialist for response to intervention.
- Differentiate instruction to meet the needs of all learners.
- Share MCAS analysis with lower grades to help build a solid foundation.
- Model for students short-answer and open-response questions. Explain how they are scored and what the scores mean.
- Provide familiarity with the MCAS Test through practice.
- Practice and emphasize writing in Math using accurate terminology, multi-step questions and problem solving strategies.
- Use nightly homework assignments to solidify concepts.

**Edgartown School  
Grade 5 Mathematics**

Gary Smith  
5<sup>th</sup> Grade Math Teacher



2007 was the second year that Mathematics MCAS was given to all grade 5 students in the state.

**I. Overview**

Students performed as expected overall. Some missed items due to an unfamiliarity with vocabulary or content, as some content was not taught during the year leading up to the test.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	9	19	44	32	28	31	19	18	32
2006	3	17	31	26	36	34	31	23	39

Discussion/Observation

General improvement was made given the number of academic issues among students – wide spectrum of abilities and effort. Overall, we need to improve our skills with number sense and understanding the questions asked and how to analyze them into recognizable parts.

**II. Analysis of Performance by Question Type**

The Grade 5 MCAS for 2007 consisted of a total of 39 questions, including 29 multiple choice questions, 5 short answer questions, and 5 open response questions. All of the questions were created around the 5 major content standards.

Math Content Strands	Number of Questions
🕒 Number Sense and Operations	16
🕒 Patterns, Relations and Algebra	9
🕒 Geometry	5
🕒 Measurement	4
🕒 Data Analysis, Statistics and Probability	5

The following table describes the breakdown of student by question type. It is important to recognize that both the open response and short answer sections consist of only 5 questions each. Therefore a slight shift in performance appears larger statistically.

Question Type	Grade 5	2007
Multiple Choice	District	69%
	State	73%
Short Answers	District	70%
	State	66%
Open Response	District	53%
	State	57%

**Performance by Question Type:  
Multiple Choice**

Students performed 4 points below state on multiple choice questions. We need to improve on strategies for this type of questions. Of all the multiple choice questions we missed, Patterns/Relationships seems to be our weakest area.

The following standard presented the greatest difficulty for the majority of our students:

Patterns/Algebra – using equations 5 – p – 3,4,5  
Data/Stats 5-D-1

**Observation/Discussion**

We didn't cover stats/prob before MCAS in May. Students with wrong answers tended to choose A or B randomly. Some vocabulary in the questions caused confusion. Finding averages and filling in missing elements of equation were problematic.

**Short Answer**

The students did generally pretty well on short answer questions. Our scores were either above state averages or slightly below. Even with sufficient facts, students had difficulty expressing themselves on written answers.

The following standard presented the highest level of difficulty for the majority of our students; Data/Statistics. Item 11 was the most difficult.

## Observations/Discussions

Finding averages is a problem. Item 11 reading/interpreting pie graph to %.  
We scored just below state average on only one other question, Item 30 – finding perimeter.

### **Open Response Questions.**

Scored 4 points below state.

Generally students were practiced in how to answer open response items and what to look for. Items with multiple steps were a problem especially for special needs students. Our scores in 4 of 5 open response questions were right around the state average. The one we missed the most was item 27 – identifying and drawing lines of symmetry.

The following standard presented the highest level of difficulty for the majority of our students: Geometry with multiple operations 5-G-6. Measurement 5 – m- 4.

### **Observations/Discussion**

The two items, (12, 27) gave many of the students trouble.  
Students with disabilities did poorly on all open response items for the most part. Symmetry was not reviewed before the test was taken.

## **III. Analysis of Identified Subgroup Performance**

### Special Needs Students

The test was administered to 7 students with special needs, which is approximately, 23% of the population.

### Observations/Discussion

Students performed poorly on open response items and short answers frequently. Students chose the 1<sup>st</sup> or 2<sup>nd</sup> answers they saw on multiple choice items. It seems that open response questions demand much for these students. Students with disabilities represent almost 25% of the class and they consistently score in the Needs Improvement or Warning categories even with the accommodations. The test presents a severe challenge to their abilities in many areas.

## **IV. Recommendations**

Continue:

- 60 minute classes
- Optimum testing time – morning for MCAS administration
- Math games/math night
- Practice testing strategies for multiple choice questions
- Practice open response questions from previous MCAS tests

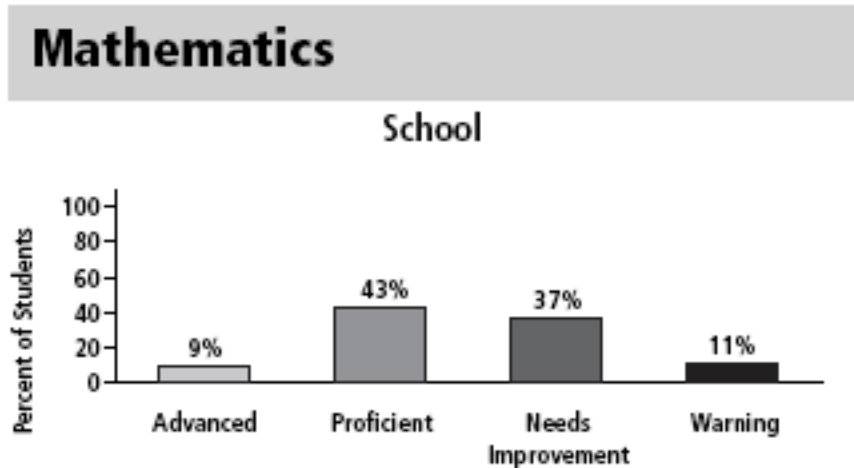
Concentrate on weakest skills in:

- Measurement
- Equations
- Patterns
- Vocabulary

Continue accommodations for special needs students concentrating on those skills needed to be successful on MCAS test.

**Edgartown School  
Grade 6 Mathematics**

Gale Meister  
6<sup>th</sup> Grade Math Teacher



I. Overview

In 2007, the district improved in 3 out of the 4 levels from 2006 to 2007. There was a 4% gain in advanced, 10% in Proficient, and 22% decrease in Warning levels. In 2007, Needs Improvement increased by 7%. Out of 13, 6 students scored high in that level. As well, 4 out of 4 in the warning level scored high. The school did better than the state in both Proficiency and Warning levels yet fell below in Advanced and Needs Improvement levels. Among the 5 math strands, the school and state were similar in scores with the exception of geometry and there was no data available by the state as to the PR strand for the district.

<u>Strands</u>	<u>Average Item Scores</u>	
	<u>District</u>	<u>State</u>
NS	66%	68%
PR	(NA)	73%
G	51%	63%
M	71%	71%
D	60%	57%

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	9	20	43	32	37	28	11	17	35
2006	5	17	33	29	30	29	33	25	40
2005	18	17	24	29	24	30	33	23	33
2004	2	17	17	25	54	32	27	25	41
2003	8	16	32	26	48	32	12	26	50

Observations/Discussion

Multiple initiatives were taken in 2007 to help enhance student performance. Provisions were made in the following areas: Students began testing in the morning rather than later in the day; breakfast was served to all students; water, mints and gum were provided throughout the test; grade level teachers proctored the test within the homeroom and students needing additional time had more available time due to the early start of the test, thereby not having the added pressure of finishing before they were ready.

The whole school focused on math throughout the year by incorporating math within other subject areas, having a math family night, having an estimation station, and in January of 2007, increased the number of minutes of math in class to a full hour each day.

**II. Analysis of Performance by Question Type**

The Grade 6 MCAS for 2007 consisted of a total of 39 questions, including 29 multiple choice questions, 5 short answer questions, and 5 open response questions. All of the questions were created around the 5 major content standards.

Math Content Strands	Number of Questions
Number Sense and Operations	16
Patterns, Relations and Algebra	10
Geometry	5
Measurement	4
Data Analysis, Statistics and Probability	4

The following table describes the breakdown of student by question type. It is important to recognize that both the open response and short answer sections consist of only 5 questions each. Therefore a slight shift in performance appears larger statistically.

Question Type	Grade 6	2006	2007
Multiple Choice	School	72%	76%
	State	73%	73%
Short Answers	School	70%	No data Available
	State	69%	61%

Open Response	School State	51% 52%	53% 61%
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**Performance by Question Type:  
Multiple Choice**

In 2007, the school did better than the state in multiple choice. The summary of points in this strand showed the school attaining 44.1 pts. and the state with 42.3 pts. respectfully. In the school, 16 out of 29 MC questions fell below a score of 70%. Out of 13 NS questions, 6 scored 70% & above while 7 fell below; out of 9 PR questions, 4 scored above 76% while 5 fell below; out of 2 G questions, 1 scored an 81% while the other fell below 70%; out of 2 M questions, 1 scored an 86% while the other fell below 70%; and 3 out of the D questions, 2 scored a 73% while the other fell below 70%.

The following standards presented the highest level of difficulty for our students:

6N6: Which number represents a point on a number line?

6N7: Which figure has both line and rotational symmetry?

Observation/Discussion

74% of the test is made up of multiple choice questions. Of that, 76% of those types of questions consist of Number Sense (NS) and Patterns and Relations (PR) categories. The other 24% of the MC questions consist of Geometry (G), Measurement (M), Data and Statistics (DS) categories. Approximately half of the NS and PR category questions attained a 70% or above.

**Short Answer**

In 2006, the school attained 70% in the short answer category while the state attained 69%. In 2007, there was no data available for the school, however the state attained 61%.

Of the 5 SA questions, the following average item scores compare district and state for each item number:

Item #	Average Item Score	
	District	State
11	0.11	0.30
12	0.23	0.26
28	0.71	0.66
29	0.49	0.48
30	0.80	0.78

Observation/Discussion

Of the 5 SA item questions, 2 were of the NS category, 2 were of the G category, and 1 was of the M category. 1 out of the 2 NS categories was low and the other was high in percentage. The difficulty in 1 NS question was in the phrasing of the question and can be explicitly taught using that phrasing. Both geometry questions needing

improvement are content based and can be interpreted by students. This content needs to be emphasized within the 6<sup>th</sup> grade curriculum.

**Open Response Questions.**

Within the summary of points attained in 2007, the school averaged 21.2 pts while the state averaged 24.5 pts. The school faired better than the state in the M and NS categories but performed less than the state in the G, M, and PR categories.

Item #	Average Item Score	
	<u>School</u>	<u>State</u>
10	2.89	2.93
13	2.57	2.60
17	1.80	1.98
27	3.49	3.25
31	2.66	2.61

The following standards presented the highest level of difficulty for the majority of our students:

- 6N8: Write a number as a product of a prime number.
- 6G2: What's the total number of edges in a hexagonal prism?
- 6G5: Determine the distance between 2 points on a number line.
- 6DI Plot data set; work with and explain median and mode.

Observations/Discussion

Open Response questions are both multi-step and analytical in nature. It is important to strengthen students' depth of reasoning and critical thinking skills in problem solving.

**III. Analysis of Identified Subgroup Performance**

Special Needs Students

The test was administered to 10 students with special needs, which is approximately, 27% of the population.

Performance Level	2007
Above Proficient	0%
Proficient	20%
Needs Improvement	50%
Failing/Warning	30%

Observations/Discussion

Math continues to be a subject that special education students have a difficult time on the MCAS with. Although only 20% of these students scored Proficient, as a group they averaged 60 CPI points, which is nearly 9% points better than the State Average. Our special education students' 30% failure rate was 24% points lower than the state average (54%).

#### **IV. Recommendations**

This year, Grade 6 has a new math textbook, Impact Mathematics, that is more language based, providing more depth of problem solving.

Math teachers should help students construct an open response question by modeling and continued practice.

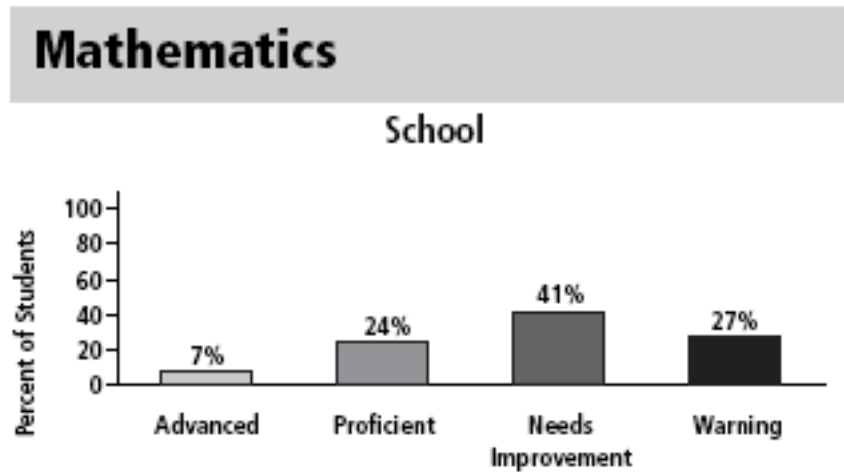
Teachers should continue to use available MCAS data to analyze the performance of individual students and groups and to develop effective interventions.

Math teachers continue to coordinate with the Math Specialist and Special Education department to improve math learning of students with disabilities.

Teachers need to continue to remind students that showing and checking their work thoroughly will result in fewer careless errors on the test.

**Edgartown School  
Grade 7  
Mathematics**

Bonnie Deitz  
7<sup>th</sup> and 8<sup>th</sup> Grade Math Teacher



**I. Overview**

The seventh graders performed with 31% of the class either Advanced or Proficient, 41% in the Needs Improvement area and 27% Warning/Failing. This equates to 13 of 41 students achieving Advanced or Proficient. 17 of 41 receiving Needs Improvement and 11 of 41 students Failing. Please note that 7 of 11 students are students with special needs

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
<b>2007</b>	7	15	24	32	42	38	27	23	41
<b>2006</b>	6	12	38	28	41	33	15	28	34

Discussions/Observations

It is hard to generalize with only two years of results. If we compare the 7<sup>th</sup> grade class of 2006 with the eighth grade class of 2007; we have the following statistics: 6% Advanced for both years, 38% Proficient increased to 49% proficient, 41% Needs Improvement decreased to 32% Needs Improvement and 15% Warning/Failing decreased to 14% Warning/Failing. It is important to keep in mind the number of students with special needs, 27% of the class. In a relatively small sample size the outcome of just two or three students greatly influences the results.

## II. Analysis of Performance by Question Type

The Grade 7 MCAS for 2007 consisted of a total of 39 questions, including 29 multiple choice questions, 5 short answer questions, and 5 open response questions. All of the questions were created around the 5 major content standards.

Math Content Strands	Number of Questions
Number Sense and Operations	11
Patterns, Relations and Algebra	12
Geometry	4
Measurement	4
Data Analysis, Statistics and Probability	8

The following table describes the breakdown of student by question type. It is important to recognize that both the open response and short answer sections consist of only 5 questions each. Therefore a slight shift in performance appears larger statistically.

Question Type	Grade 7	2006	2007
Multiple Choice	District	69%	57%
	State	63%	67%
Short Answers	District	62%	73%
	State	65%	69%
Open Response	District	60%	65%
	State	54%	59%

### Performance by Question Type:

#### Multiple Choice

While last year's class performed 6% higher than the state average, this year's class performed 10% lower than the state average.

Number sense and operations would top the list for the highest level of difficulty followed by Patterns, Relations and Algebra then Data Analysis, Statistics and Probability.

#### Observations/Discussion

To vary that much from one year to another speaks to the variance of one year's class make-up compared to the next. Questions involving number sense include rate change from mp/hr to mp/min, scientific notation, estimating the percent of a total, and some topics that could be considered straight forward; translating a decimal number a fraction, evaluate numerical expression having an exponent and which absolute number has the greatest value. Patterns questions range from "create a symbolic expression representing a fractional relationship to compare two activity schedules to find common occurrence. Math language and readability of questions have a high significance in a students understanding.

### Short Answer

Our students performed 4% higher than the state average on short answer questions. The geometry standard of calculating the measure of an interior angle of a quadrilateral posed the higher level of difficulty.

The topics of the 5 short answer questions were typical of 7<sup>th</sup> grade. They were; calculate a discounted price using percent, write an equation for two variables from a table, what value of a variable makes an equation true and find the angle between intersecting lines.

### Open Response Questions.

Our students performed 6% higher than the state average on open response questions.

Two standards measurement – “working with a compound shape: calculate various measures” and number sense – “working with decimals, fractions, percents: calculate prices” gave some of our students difficulty.

#### Observations/Discussion

The two previously identified standards are two of the five standards. All five were presented on this test with each one being one of the five open response questions. This is the second year in a row that our students did 6% higher than the state.

### III. Analysis of Identified Subgroup Performance

#### Special Needs Students

The test was administered to 9 students with special needs, which is approximately, 22% of the population.

Performance Level	2007
Above Proficient	0
Proficient	0
Needs Improvement	2
Failing/Warning	7

#### Observations/Discussion

Of the seven failing/warning students with special needs, five (5) scored in the 216-218 range. Specifically, 3 scored 216 and 2 scored 218. That means these students were all within one or two questions of scoring in the Needs Improvement category.

### IV. Recommendations

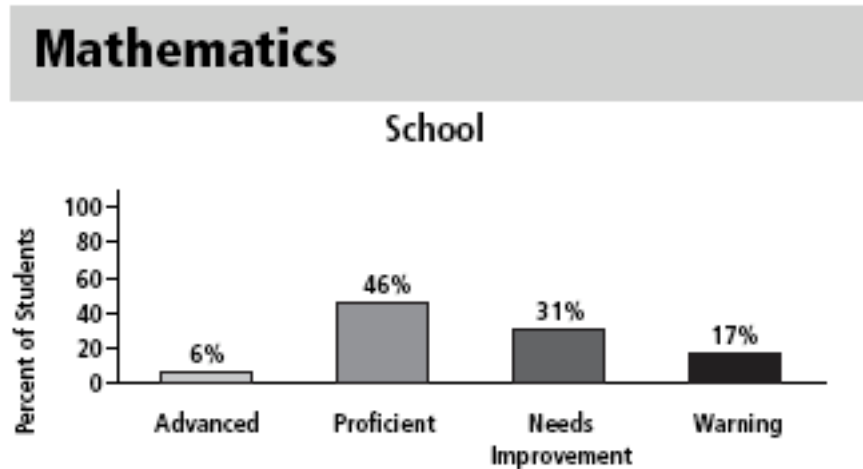
The new text for seventh grade be ready for the start of the new year.  
The 6 recommendations from the 8<sup>th</sup> grade report could also be restated here as well.

A “wish list” recommendation:

That a form be created for the parents to sign if they refuse the services offered i.e. Homework club, remedial services – for any student, regular ed, IEP or 504 plan – and that said form travel with the child's permanent record and copies be made available to the DOE.

**Edgartown School  
Grade 8 Mathematics**

Bonnie Deitz  
7<sup>th</sup> and 8<sup>th</sup> Grade Math Teacher



**I. Overview**

The eight graders performed with 52% of the class either advanced or proficient, 31% in the needs improvement area and 17% warning/failing. This equates to 18 of 36 students achieving advanced or proficient, 11 of 36 receiving needs improvement and 5 of 36 students failing. Please note the sample size of 36 students, (2 students took alternate assessments) matters greatly.

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	6	17	49	29	32	30	14	24	36
2006	8	12	34	28	42	31	16	29	38
2005	7	13	32	26	49	30	12	31	57
2004	11	13	29	26	47	32	13	29	38
2003	16	12	42	25	33	30	9	33	45

Collapsed Performance Levels: Advanced and Proficient

Year	Advanced And Proficient	
	School	State
2007	54%	46%
2006	42%	40%
2005	40%	39%
2004	40%	39%
2003	58%	37%

Observations/Discussion

Though the sample (class) size varies the past five years from 36 to students, we have continued to have the total percent of advanced and proficient students be above the state's.

**II. Analysis of Performance by Question Type**

The Grade 8 MCAS for 2007 consisted of a total of 39 questions, including 29 multiple choice questions, 5 short answer questions, and 5 open response questions. All of the questions were created around the 5 major content standards.

Math Content Strands	Number of Questions
Number Sense and Operations	11
Patterns, Relations and Algebra	12
Geometry	4
Measurement	4
Data Analysis, Statistics and Probability	8

The following table describes the breakdown of student by question type. It is important to recognize that both the open response and short answer sections consist of only 5 questions each. Therefore a slight shift in performance appears larger statistically.

Question Type	Grade 8	2006	2007
Multiple Choice	District	69%	68%
	State	62%	64%
Short Answers	District	58%	70%
	State	52%	56%
Open Response	District	58%	54%
	State	57%	55%

**Performance by Question Type:  
Multiple Choice**

Our students performed 4% higher than the state on multiple choice questions.

Two of the five standards posed slight difficulty. The first was Patterns, Relations and Algebra; we scored 61% while the state scored 63%. The second was Data Analysis, Statistics & Probability; we scored 57% and the state scored 60%.

Observations/Discussion

We were off slightly on these two areas. We did, however, score 6% higher than the state in both Number Sense & Operations as well as Measurement. Also, we scored 13% higher in the standard of Geometry than the state.

**Short Answer**

Our students performed 14% higher than the state on short answer questions.

We scored above the state in all standards on short answer questions.

Observations/Discussion

In the 4 of 5 standards we scored as follows:

- 15% higher in Geometry
- 19% higher in Number Sense & Operations
- 10% higher in Patterns, Relations & Algebra

It varied with the standard of Measurement. One question dealt with simple conversions of yards to feet and we were only 8% above the state. While a more complex question involving finding the height within a volume formula, we scored 18% above the state.

**Open Response Questions**

This year we were 1% below the state average on open response questions. Over the past years, the 8<sup>th</sup> graders have been above the state average on this style of question.

Patterns, Relations & Algebra presented the biggest challenge; Data Analysis, Statistics & Probability gave us slight trouble.

Observation/Discussion

The open response question giving us the most difficulty was on the topic of linear equations and finding the y-intercept and slope of a given line. It was related to the real life situation of the total number of calories in a snack of milk and cookies.

**III. Analysis of Identified Subgroup Performance**

Special Needs Students

The test was administered to 10 students with special needs, which is approximately, 27% of the population.

Performance Level	2007
Above Proficient	0
Proficient	0
Needs Improvement	40
Failing/Warning	60

Observation/Discussion

Of the 10 special needs students, 8 were given the standard MCAS test with accommodations and 2 were tested by means of the alternate assessment. The two alternate assessments were both scored in the progressing stage. However, with 27% of a small class (36 students) with special needs, that can greatly impact the overall class performance.

**IV. Recommendations**

That we continue to have a math focus at our school in the future.

Last year's increase to an hour per day of math instruction should continue.

Tests/ Quizzes be structured in a MCAS format.

We continue to push non-fiction writing in math classes, especially 5th-8th.

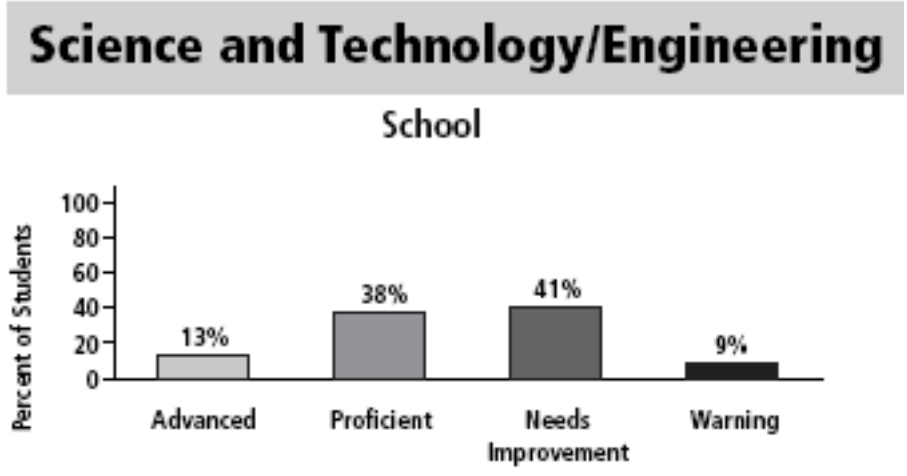
The implementation of the new K-5 program to be monitored and additional support (i.e. training, etc.) be provided for staff.

For those students (not on IEP's or 504's) behind on mastery of basic operation facts (for example: additions facts to 20 or multiplication facts through 12's) after hours tutorials be provided either through a computer lab model, like the high school, and/or a teacher or a combination of these, to help those students along.

Granted the second MCAS math session allows the use of a calculator while the first session does not.

**Edgartown School  
Grade 5 Science and Technology/Engineering**

Gary Smith  
5<sup>th</sup> Grade Science Teacher



**I. Overview**

The spring 2007 grade 5 MCAS Science and Technology/Engineering test was based on learning standards in the Massachusetts Science and Technology Curriculum Framework (2006). The Framework identifies four major content strands”

- Earth and Space Science
- Life Science (Biology)
- Physical Sciences (Chemistry and Physics)
- Technology/Engineering

We basically matched the state averages in all categories. Our scores were within a point either way of state averages.

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
<b>2007</b>	13	14	38	37	40	39	9	10	32
<b>2006</b>	13	17	26	33	56	39	5	11	39
<b>2005</b>	3	16	31	35	54	38	13	12	39
<b>2004</b>	31	20	43	35	23	33	3	13	35
<b>2003</b>	13	18	53	33	33	34	3	15	40

Observations/Discussion

The number of students with Warning seems to be a matter of class dynamics for that particular year; range of abilities and effort. We showed improvement in both Proficient and Needs Improvement categories.

**II. Analysis of Performance by Question Type**

The Grade 5 MCAS for 2007 consisted of a total of 39 questions, including 34 multiple choice questions, 5 open response questions. On the open response questions, students were required to support their answers in written format. All of the questions were created around the 4 major content standards.

Science Content Strands	Number of Questions
Life Science (Biology)	10
Physical Science (Chemistry and Physics)	11
Earth and Space Science	8
Technology/ Engineering	10

The following table describes the breakdown of student by question type.

Question Type	Grade 5	2004	2005	2006	2007
Multiple Choice	School	82%	74%	80%	70%
	State	73%	74%	73%	74%
Open Response	School	64%	45%	55%	49%
	State	62%	56%	52%	52%

**Performance by Question Type:**

**Multiple Choice**

Weakest area/standards were Earth and Life Sciences. No units on Earth Science were presented in 5<sup>th</sup> grade as it was part of the curriculum in previous grades.

Earth Sciences and Technology/Engineering standards presented the highest level of difficulty for the majority of our students.

Observations/Discussion

Performance was better on content covered in 5<sup>th</sup> grade – not as strong in concepts covered in 3<sup>rd</sup> and 4<sup>th</sup> grades. Most multiple choice questions missed were in Earth Science or Technology/Engineering.

**Open Response Questions.**

Generally, most students scored in Proficient and above except those students on IEP's. Of the 5 open response questions, the students performed above or near the state average on 3. The two that presented the most difficulty were items 18 and 19, which tested standards in Earth Science and Technology/Engineering.

The following standards presented the highest level of difficulty for the majority of our students:

- Tech/Eng                      Tech S1-2
- Earth Science                Earth S12

Observation/Discussion

Some content covered in previous years was only touched on in 5<sup>th</sup> grade. Test responses for items covered in 5<sup>th</sup> grade curriculum were generally good. More review of 3<sup>rd</sup> and 4<sup>th</sup> grade concepts is needed before test is administered.

**III. Analysis of Identified Subgroup Performance**

Special Needs Students

The test was administered to 7 students with special needs, which is approximately, 23% of the population.

Performance Level	2007
Advanced	1
Proficient	1
Needs Improvement	4
Warning	1

Observation/Discussion

Students with special needs tended to fall into Needs Improvement or Warning categories. Each student represents 3+% of totals in all categories.

**IV. Recommendations**

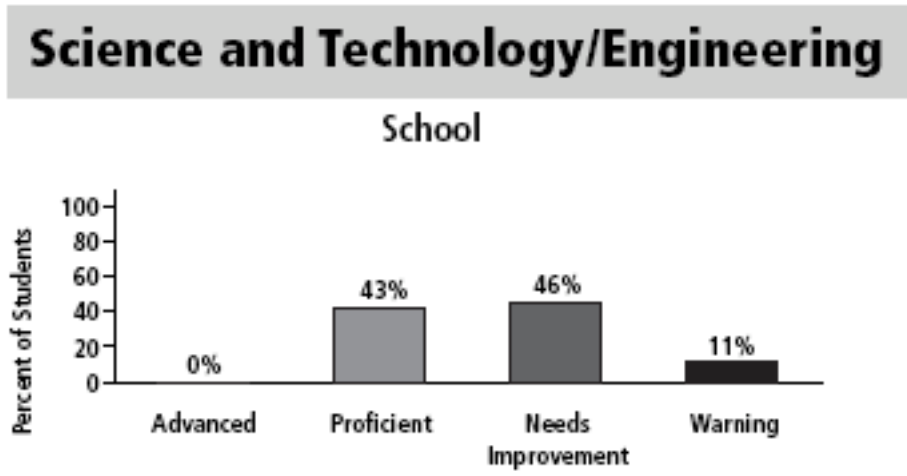
Unlike Math, which names specific standards for each grade level – science names standards for 3 grade levels 3<sup>rd</sup>–4<sup>th</sup>–5<sup>th</sup>.

We have to meet as science teachers (K-8), and coordinate content and curriculum to ensure all standards are covered. Some are covered each year while others are untouched or covered too much in a particular grade.

We have to decide which grades are capable of learning which skills or concepts to meet the requirements of this test.

**Edgartown School  
Grade 8 Science**

David Faber  
7<sup>th</sup> and 8<sup>th</sup> Grade Science Teacher



**Overview**

The spring 2007 grade 8 MCAS Science and Technology/Engineering test was based on learning standards in the Massachusetts Science and Technology Curriculum Framework (2006). The Framework identifies four major content strands”

- Earth and Space Science
- Life Science (Biology)
- Physical Sciences( Chemistry and Physics)
- Technology/Engineering

Edgartown 8<sup>th</sup> graders again outperformed the state overall on the 2007 MCAS Science and Technology/Engineering test, however our general numbers this year appear to be somewhat below last year’s numbers. There were 43% of our students measuring Proficient, compared to 33% proficiency across the state. However, none of our students placed in the Advanced category, while 3% did across the state. Meanwhile, our school had only 11% Warning compared to 25% across the state.

Last year, our 8<sup>th</sup> graders had 48% proficiency, compared to 32% across the state. So our numbers are only slightly below last year’s, however, annual fluctuation in such small sample sizes is not to be underestimated.

We again did better than the state on the multiple choice items (74% correct compared to 65%), as we do most years. And most promising, we did better than the state on the open response questions this year too (57% correct compared to 49%).

Performance Levels

Year	Advanced		Proficient		Needs Improvement		Warning Failing		Students Included
	School	State	School	State	School	State	School	State	
2007	0	3	43	30	46	44	11	24	35
2006	3	4	45	28	42	43	11	25	38
2005	0	4	33	29	51	41	16	26	57
2004	0	5	34	28	47	35	18	31	38
2003	9	4	60	28	24	38	7	30	45

Observation/Discussion

This year's 8<sup>th</sup> grade was the smallest sample size since 2003, so we must be careful in looking for trend data. However, we do seem to see certain trends continuing. For one, we still tend to have significantly lower number of students failing this test altogether, and the number of students needing improvement roughly matches that of the state. Our proficiency numbers continue to be higher than the state, however we again did not have any students fall into the advanced category. The state typically has 4-5% advanced, which would be one student for us, considering our small numbers.

**II. Analysis of Performance by Question Type**

The Grade 5 MCAS for 2007 consisted of a total of 39 questions, including 34 multiple choice questions, 5 open response questions. On the open response students were required to support their answers in written format. All of the questions were created around the 4 major content standards.

Science Content Strands	Number of Questions
Life Science (Biology)	8
Physical Science (Chemistry and Physics)	10
Earth and Space Science	11
Technology/ Engineering	10

The following table describes the breakdown of student by question type.

Question Type	Grade 8	2004	2005	2006	2007
Multiple Choice	School	72%	72%	74%	74%
	State	66%	66%	70%	65%
Open Response	School	46%	48%	63%	57%
	State	46%	46%	50%	49%

### **Performance by Question Type: Multiple Choice**

In 2007, Edgartown 8<sup>th</sup> graders received 74% of all possible points on multiple choice test items, compared to 65% at the state level. This suggests adequate comprehension of the science concepts, as determined by the state standards, but certainly leaves room for improvement. We typically do well overall with multiple choice items, and this is promising as we continue to tweak our curriculum.

Of the 8 physical science test items below the threshold, two of them addressed the topic of elements (recognizing that air can be separated into several elements, and that an atom is the smallest unit of an element with its own properties). There were also two low items regarding the concept of physical change versus chemical change, which is surprising since these concepts are taught in both 6<sup>th</sup> and 8<sup>th</sup> grades. Other low physical science test items included the topics of freezing and boiling points, mixtures, potential energy, and motion of objects. This wide variety might suggest an overall weakness in physical science. This might not be surprising since most of the physical science curriculum occurs in the 6<sup>th</sup> grade.

Of the 4 low multiple choice items having to do with life science, three of them deal with ecology (symbiosis, decomposition, and producers in a food web). These concepts are also taught in 6<sup>th</sup> grade, which might suggest that review of these topics in the 8<sup>th</sup> grade is warranted.

### **Observations/Discussion**

Because there is such tremendous variety in the science test questions each year on the 8<sup>th</sup> grade science and technology/engineering MCAS, and since the test items obviously change each year, it is difficult to look directly at individual items in one year to suggest curriculum changes. However, this is not the first year that physical science has been the weakest strand for our school. This trend suggests that we look at the physical science taught in the 6<sup>th</sup> grade, and build on that in 7<sup>th</sup> and 8<sup>th</sup> grade.

### **Open Response Questions**

Typically, we have not fared well on open response questions as a school - in nearly all grades and in nearly all tested subjects. However, this year we had some of our best scores on open response test items with the 8<sup>th</sup> grade science and technology/engineering, which is perhaps promising. Nonetheless, we earned only 57% of all possible points, which does leave room for improvement. This, however, compares favorably to the 49% earned across the state.

What is perhaps not surprising is that our poorest open response item was a physical science question, asking students to draw and describe particles in a liquid and gas state. Out of 4 possible points, we averaged 1.9.

What is surprising, however, is that the next two lowest open response test items were life science questions, which is not typically an area we worry about. One question - about classifying organisms into kingdoms - also received an average score of only 1.9. This is a major concept taught in the 7<sup>th</sup> grade so we would expect the 8<sup>th</sup> graders to know it. The other question we struggled on, with an average score of 2.0, dealt again with producers and consumers - ecology concepts related to the same multiple choice questions we struggled on.

Observations/Discussion

Since there are only 5 open response questions each year, with at least one in each of the four domains (earth and space science, life science, physical science, and technology/engineering), it is difficult to draw conclusions about how we might modify the content of our curriculum. Some years the questions work in our favor, while other years they do not.

**III. Analysis of Identified Subgroup Performance**

Special Needs Students

The test was administered to 9 students with special needs, which is approximately, 26% of the population.

Performance Level	2007
Above Proficient	0%
Proficient	7%
Needs Improvement	36%
Failing/Warning	56%

Observations/Discussion

More than half the students on IEP's failed this test, which is five times greater than the overall class. 92% of these students were below proficiency, compared to 57% of the overall class. As is the case most years, an overwhelming number of our students in the lower end of Warning, and in Needs Improvement, are students on IEP's. These numbers reflect how difficult it is for many students with disabilities to be successful on this test. Our school is very cognizant of the legal accommodations that we can afford these children, and we devote our best resources to help them. However, it is truly frustrating that these students perform so poorly on this test. These are difficult observations to make, and there are no clear, quick, or easy solutions to be had.

**IV. Recommendations**

In science and technology/engineering for grades 6-8, we should continue to look at our physical science curriculum. It is taught largely in the 6<sup>th</sup> grade, with some review in the 8<sup>th</sup> grade. It would make sense to bolster the 6<sup>th</sup> grade program, and to expand the 8<sup>th</sup> grade review of those concepts. There also needs to be some minor tweaking of the 8<sup>th</sup> grade earth science curriculum, which will take place this year.

As far as life science, it is taught heavily in 6<sup>th</sup> and 7<sup>th</sup> grades, and yet it had the lowest scores of the four strands of science and technology/engineering. However, this is not always the case and might represent an anomaly for this year. Further analysis shows that the lower score was due to two heavily weighted open response questions, which makes adjustments easier. The biggest adjustment is to improve the ecology unit taught in the 6<sup>th</sup> grade and to add a review of those concepts in 8<sup>th</sup> grade this year.

Another recommendation is to continue the modeling and practice of science open response questions in not just 8<sup>th</sup> grade, but all grades 5-8, which might account for the improvement in that area. Typically, this was done in 8<sup>th</sup> grade, but might be expanded to the other grades if in fact it helps.

Interestingly, while the technology/engineering strand continues to be a strong point for us here at Edgartown, we do not devote much attention to it in the curriculum. It is simply overviewed in the 8<sup>th</sup> grade, and that practice should be continued.