

Foxborough Public Schools
Measures of Student Achievement
Baselines and Benchmarks for Improvement

Introduction:

There are currently 2,625 students enrolled in the Foxborough Public Schools: 808 at Foxborough High School, 842 at the Ahern Middle School, 319 at the Burrell Elementary School, 393 at the Igo Elementary School, and 237 at the Taylor Elementary School. Included in that population are 59 English language learners whose first language is not English. Foxborough’s per pupil expenditure for FY 2016 was \$16,058 compared to the statewide average per pupil expenditure of \$15,545. The following information provides further background and context for our baselines and goals for student achievement:

Students Eligible for Free or Reduced Lunch	2012	2013	2014	2015	2016	2017
District-Wide (excludes preschool)	16.27%	16.19%	16.75%	16.62%	18.62%	*20.57%
Foxborough High School	16.01%	15.50%	15.10%	15.90%	18.38%	*21.29%
Ahern Middle School	14.79%	16.78%	18.11%	17.05%	20.47%	*21.97%
Burrell Elementary School (excludes preschool)	18.37%	15.30%	19.38%	15.98%	15.82%	*12.24%
Igo Elementary School	18.93%	20.41%	19.50%	18.73%	20.61%	*24.68%
Taylor Elementary School	17.14%	11.76%	12.31%	14.75%	12.35%	*14.77%

* USDA approved MA to use state Medicaid data for both free and reduced price eligibility by direct certification delivered through Virtual Gateway

Special Education Population	2012	2013	2014	2015	2016	2017
District-Wide	15.7%	15.1%	15.62%	16.78%	17.60%	16.99%
Foxborough High School	17.9%	17.3%	16.72%	16.96%	18.14%	15.22%
Ahern Middle School	17.5%	17.1%	17.65%	18.13%	18.75%	20.67%
Burrell Elementary School (excludes preschool)	12.9%	12.1%	13.56%	16.80%	11.08%	12.66%
Igo Elementary School	11.5%	10.4%	13.50%	13.62%	16.54%	16.54%
Taylor Elementary School	13.2%	11.3%	11.94%	16.80%	13.58%	11.39%

Our process for identifying data to measure student achievement, establishing baselines, and setting future benchmarks for improvement has been in place for many years at this point and continues to involve a team of administrators and coordinators throughout the district. As different groups of students are measured variables can result in annual comparisons being unreliable therefore a three year “three year rolling average” is utilized for most assessments. The process of creating baseline and benchmark goals for district assessments provides an opportunity to identify possible strengths and weaknesses of our curriculum and instructional programs. Multiple measures in addition to state standardized assessments will continue to be important measures for assessing student academic achievement.

For assessments that continue to remain the same the district’s progress toward identified goals is reported. The Legacy MCAS was administered for science in grades 5 and 8 and for all high school MCAS tests (English language arts, math, and science and technology/engineering). In 2017 students in grade 10 continued with the Legacy MCAS in ELA, math and science as it remains a graduation requirement. The Next-Generation grade 10 ELA and Mathematics tests will not begin until spring 2019 (the class of 2021).

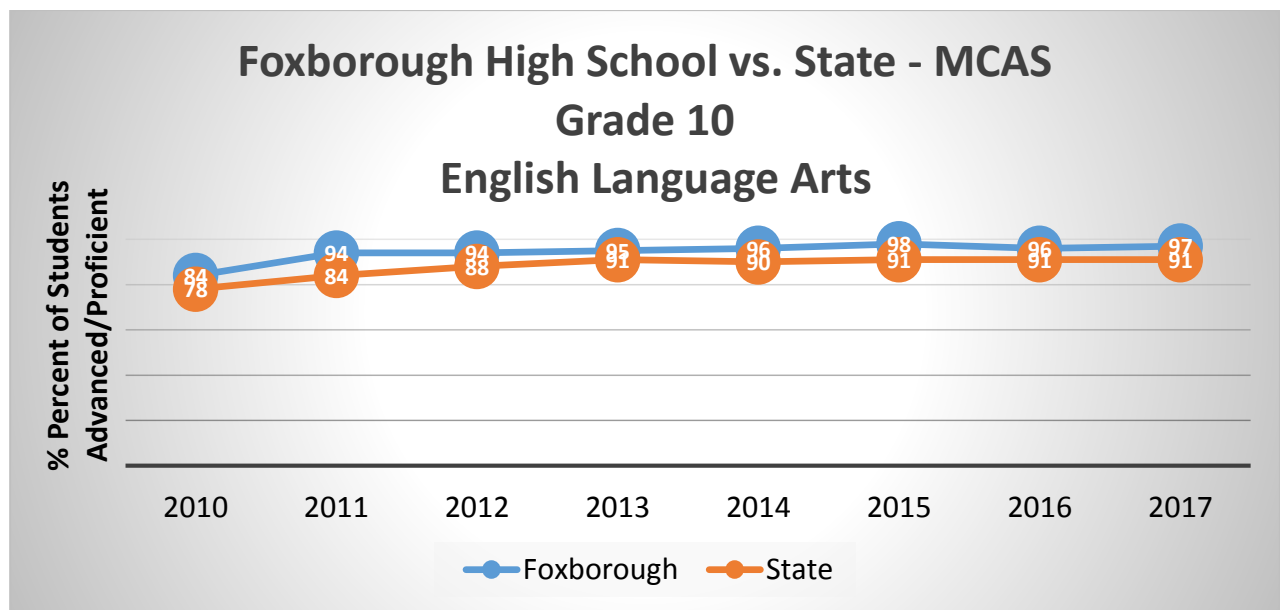
In 2017 the Next-Generation MCAS was administered in English language arts and math for grades 3-8. This assessment is an updated version of the nearly 20-year-old MCAS assessment. It focuses on students' critical thinking abilities, application of knowledge, and ability to make connections between reading and writing. Additionally, it gives a clearer signal of readiness for the next grade level or college and career. It was designed to be administered online with paper versions remaining available. Districts had the opportunity to select the mode of administration for the assessment. In Foxborough, students in grades 4-8 took the test online with only third grade students testing on paper.

The transition to Next-Generation MCAS has resulted in new baselines set for all schools in Massachusetts. This Next-Generation MCAS varies in achievement levels from the Legacy MCAS as well as from the achievement levels from the Partnership for Assessment of Readiness for College and Career (PARCC) assessment which was given in Foxborough over the last two years. A comparison of the achievement levels is provided later in this report with the grades 3-8 results.

**Foxborough High School 2017 MCAS Results for
English Language Arts, Mathematics and Science &
Foxborough High School: BASELINE AND BENCHMARKS**

**MULTI-YEAR COMPARISON
State Standardized Assessments**

FOXBOROUGH HIGH SCHOOL MCAS - ENGLISH LANGUAGE ARTS						
GRADE 10 <i>(2017 percentages based on 202 students)</i>	Advanced	Proficient	Adv. & Prof.	Needs Improvement	Failure	NI & Fail.
2017	53	44	97	2	1	3
2016	49	47	96	3	1	4
2015	50	48	98	1	0	1
2014	47	49	96	1	2	3
2013	53	41	95	4	2	6
2012	45	49	94	4	3	7
2011	48	46	94	5	0	5
2010	24	60	84	14	1	15
2009	35	55	90	10	1	11
2008	36	50	86	12	1	14
2007	21	59	80	15	5	20
2006	22	68	90	7	3	10
2005	31	47	78	18	3	21
2004	27	55	82	16	2	18
2003	35	49	84	14	2	16
2002	32	44	76	20	4	24
2001	26	39	65	26	9	35



Summary Data Statements – English Language Arts

GRADE 10:

- In 2017, 97% of students at Foxborough High School achieved a rating of Proficient or Advanced on the grade 10 ELA portion of the MCAS exam. This continues to be above the state average of 91%.

Data to support:

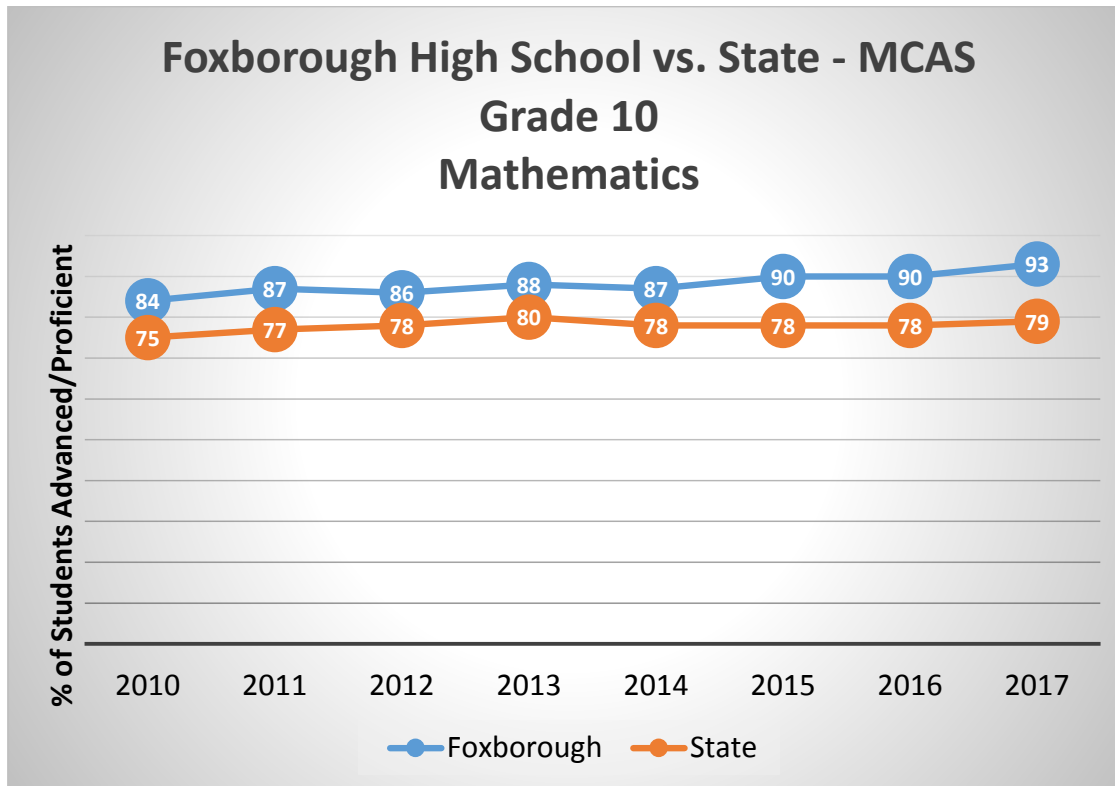
- MCAS Multi-Year Comparison for English Language Arts
- DESE Summary of State Results 2017

Root Causes:

- Carefully written curriculum that is closely aligned with state standards and implemented at all levels.
- Continued implementation of the John Collins writing program throughout all grades and levels, including on-going alignment with the middle school.
- Continued utilization of ELA tutor(s) by teachers and students.
- Improved focus on skill-building in all grades and levels, including an increased focus on skills-based assessments.
- Students have a variety of opportunities to practice their reading and writing skills across the disciplines.
- Contextual grammar instruction is happening in every class, across grade and level and a variety of assessments are being used to assess students' grammar knowledge and skills.

FOXBOROUGH HIGH SCHOOL MCAS - MATHEMATICS

GRADE 10 <i>(2017 percentages based on 203 Students)</i>	Adv. & Prof.					NI & Fail.
	Advanced	Proficient	93	Needs Improvement	Failing	
2017	64	29	93	5	2	7
2016	65	25	90	8	2	10
2015	64	26	90	8	8	10
2014	61	26	88	9	4	13
2013	66	22	88	7	5	12
2012	55	31	86	8	6	14
2011	63	22	85	14	1	15
2010	59	25	84	13	3	16
2009	59	26	85	13	2	15
2008	52	34	86	10	3	13
2007	48	33	81	14	5	19
2006	52	31	83	11	6	17
2005	50	29	79	13	9	22
2004	38	35	73	22	5	27
2003	37	40	77	19	5	24
2002	31	34	65	25	9	34
2001	26	41	67	20	14	34



Summary Data Statements – Mathematics

GRADE 10:

- The number of students scoring at the Advanced/Proficient level continues to be above the state average. In 2017, 93% of students at Foxborough High School achieved a rating of Proficient or Advanced on the grade 10 Mathematics portion of the MCAS exam compared to the state average of 79%.

Data to support:

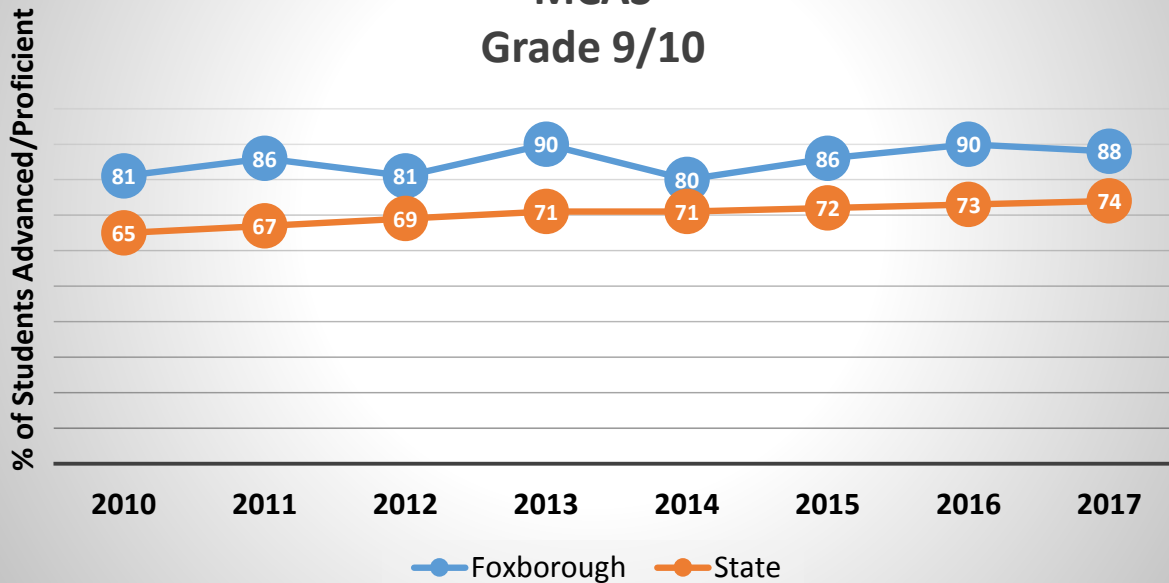
- 2017 DESE Summary Report of State Results
- 2017 MCAS Math Item Analysis Reports

Root Causes:

- Math Boot Camp for at risk students
- Curriculum that is closely aligned with state standards implemented across all levels
- Use of formative assessments on a regular basis
- Strong, cohesive group of teachers that promote consistency in all courses

FOXBOROUGH HIGH SCHOOL MCAS - SCIENCE AND TECHNOLOGY						
GRADE 9/10	Advanced	Proficient	Adv. & Prof.	Needs Improvement	Failure	NI & Fail.
2017	46	42	88	8	3	11
2016	42	49	90	8	2	10
2015	35	51	86	12	1	13
2014	43	37	80	17	3	20
2013	42	47	90	8	2	10
2012	27	54	81	14	5	19
2011	32	54	86	12	2	14
2010	19	62	81	15	5	20
2009	20	58	78	19	3	22
2008	21	50	71	22	7	29
2007	11	45	56	28	17	45

Foxborough High School vs. State Science and Technology/Engineering MCAS Grade 9/10



MCAS Data Science / Biology	NEW BASELINE 2010-2012 3- year rolling average	BENCHMARK Fall 2015 3-year benchmark goal	3 YEAR REPORT FALL 2015 2013-2015	NEW BASELINE 2014-2016 3- year rolling average	Fall 2017	BENCHMARK Fall 2019 3-year benchmark goal
Grade 10 % of students Advanced / Proficient	82.67	85	85%	85.7%	Grade 10 *87%	88%
					Grade 9 89%	

**Note: Due to curriculum shifts, beginning in 2017 primarily grade 9 students were tested on the Biology MCAS.*

Summary Data Statements – Science & Technology/Engineering

OVERALL:

1. Foxborough’s 2017 MCAS performance in Science is relatively consistent district wide. District wide Foxborough outperforms the State by an average of 15% for students scoring Advanced/Proficient. Grade 5 exceeds the state by 8%, grade 8 by 22% and grades 9&10 by 14%. More specifically, grades 9&10 exceeds the state by 14% of students scoring Advanced in 2017 which is an increase of 2 percent from 2016. CPI data shows the Foxborough’s performance across all three tests are consistent, with CPI ratings ranging from 5.6 to 13 points above the state. In 2017 due to curriculum shifts with Biology being moved to grade 9, results include all grade 9 and most grade 10 students.

Data to support:

- a. 2017 MCAS Performance Categories
- b. 2017 MCAS CPI data (Foxborough vs. State)

GRADE 9/10: 2017 MCAS BIOLOGY EXAM

- 2. Foxborough High School students continue to perform at very high levels on the MCAS Biology exam

Data to support:

- a. The percentage of Foxborough High School students passing the MCAS Biology exam on their first attempt continues to be over 95% (2017: 97% passing rate, 97% 9th graders, 95.7% 10th graders).

Root Causes:

- a. Very close alignment and integration of state standards and curriculum.
- b. Bio Boot Camp for at risk students.

- 3. Foxborough High School students continue to perform at levels well above state averages on the MCAS Biology exam.

Data to support:

- a. Percent of Students Scoring Advanced/Proficient, 2017: 87.9% (86.9% 10th graders 88.7% 9th graders) FHS vs. 74% state
- b. Percent of Students Scoring Needs Improvement/Failing, 2017: 12% FHS vs. 26% state

Root Causes:

- a. *See above*

Foxborough High School: BASELINE AND BENCHMARKS GOALS

Advanced Placement Tests

For the **third year in a row**, Foxborough was **named to the 7th Annual AP District Honor Roll** by the College Board for increasing access and expanding opportunities to AP course work while improving performance for AP students.

Advanced Placement (AP) Data (Average Score)	BASELINE 2010-2012 3 Year Rolling Average	3 Year Report Fall 2015 Goal	3 YEAR REPORT FALL 2015 2013-2015	NEW BASELINE 2014-2016 3- year rolling average	2017	BENCHMARK Fall 2019 3-year benchmark goal
# of AP students	128	143	165	192	195	203
# of tests administered	241	305	321	374	427	430
Percentage Scoring 3 or better (0-5 scale)	83%	83%	84%	78.6%	77.4	79%

Advanced Placement (AP) Data (Average Score)	2011	2012	2013	2014	2015	2016	2017
# of AP students	117	127	140	163	192	220	195
# of tests administered	210	240	299	303	362	458	427
# of AP students Scoring 3 or better (0-5 scale)	91	107	125	128	161	162	151
Percentage Scoring 3 or better (0-5 scale)	77.8%	84.3%	89.3%	78.5%	83.9%	73.6%	77.4%

Foxborough High School: BASELINE AND BENCHMARKS GOALS Cont'd.

S.A.T. Data (Average Scores)	BASELINE 2010-2012 3- year rolling average	BENCHMARK Fall 2015 3-year benchmark goal	3 YEAR REPORT FALL 2015 2013-2015	NEW BASELINE 2014-2016 3- year rolling average	2017	BENCHMARK Fall 2019 3-year benchmark goal
CRITICAL READING	524.33	530	537	526	N/A	531
CRITICAL WRITING	533.33	545	541	527	N/A	532
EVIDENCE BASED READING& WRITING					574	Benchmark goal to be determined
MATH	547.33	550	549	536	561	538
ACT Data (Average Scores)	BASELINE 2011-2013 3-year rolling average	BENCHMARK Fall 2015 3-year benchmark goal	3 YEAR REPORT FALL 2015 2013-2015	NEW BASELINE 2014-2016 3-year rolling average	2017	BENCHMARK Fall 2019 3-year benchmark goal
ENGLISH	22.1	23.1	22.7	22.7	23	24
MATH	23.1	24.1	23.3	23.2	24	24
READING	22.8	23.8	23.8	24.0	24	24
SCIENCE	22.0	23.0	22.6	22.9	23	24
COMPOSITE	22.6	23.6	23.3	23.2	23.5	24

Continuing Education	NEW BASELINE 2010-2012 3- year rolling average	BENCHMARK Fall 2015 3-year benchmark goal	3 YEAR REPORT FALL 2015 2013-2015	NEW BASELINE 2014-2016 3- year rolling average	2017	BENCHMARK Fall 2019 3-year+ benchmark goal
Total percentage of Continuing Education	91.67	92	90%	90%	93%	92%

State Standardized Assessments

In 2017 Massachusetts transitioned to the Next-Generation MCAS. This new assessment replaces the Legacy MCAS and reports achievement levels differently. Below is comparison of the new reporting levels.

MCAS Achievement Levels	
★ Legacy	★ Next-generation
<p>Advanced Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter, and provide sophisticated solutions to complex problems.</p> <p>Proficient Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems.</p> <p>Needs Improvement Students at this level demonstrate a partial understanding of subject matter and solve some simple problems.</p> <p>Warning Students at this level demonstrate a minimal understanding of subject matter and do not solve simple problems.</p>	<p>Exceeding Expectations A student who performed at this level exceeded grade-level expectations by demonstrating mastery of the subject matter.</p> <p>Meeting Expectations A student who performed at this level met grade-level expectations and is academically on track to succeed in the current grade in this subject.</p> <p>Partially Meeting Expectations A student who performed at this level partially met grade-level expectations in this subject. The school, in consultation with the student's parent/guardian, should consider whether the student needs additional academic assistance to succeed in this subject.</p> <p>Not Meeting Expectations A student who performed at this level did not meet grade-level expectations in this subject. The school, in consultation with the student's parent/guardian, should determine the coordinated academic assistance and/or additional instruction the student needs to succeed in this subject.</p>

Why Did My Child Score Proficient on the Older MCAS but Only Partially Meeting Expectations This Year?

- In general, the new standards for Meeting Expectations are more rigorous than the standards for reaching the Proficient level on the legacy MCAS.
- The next-generation MCAS establishes high expectations to better reflect whether students are on track for the next grade level and ultimately for college and a career.
- Massachusetts educators set the new standards to help signal students' readiness for the next grade level.

Other Important Notes:

- Spring 2017 is a baseline year for a new test in grades 3-8, the first year of a new assessment **and spring 2017 scores should not be compared to previous years' scores.** We expect that over time, more students will score Meeting Expectations or above. (When the original MCAS debuted in 1998, relatively few students scored Proficient, but that changed as students and teachers adjusted to the new expectations.)
- Students in grades 3-8 do not face any negative consequences as a result of their scores.
- Students in grades 4-8 in Foxborough took the test online.
- Students in 10th grade will not begin taking the next generation MCAS until 2019, so they are not affected by any of these changes.
- The next-generation MCAS is a new test with a different approach to assessing student performance in grades 3-8, and this year's results cannot be compared to last year's.
- In some subjects and grades, fewer students scored Meeting or Exceeding Expectations this year than scored Proficient or Advanced in previous years. This does NOT mean that students learned less; it reflects the fact that the next-generation MCAS measures more rigorous standards in a different way.

Next-Generation MCAS Grades 3-8

ENGLISH LANGUAGE ARTS

2017 Next-Gen MCAS English Language Arts						
	Foxborough % Exceeding and Meeting Expectations	*State % Exceeding and Meeting Expectations	Foxborough Exceeding Expectations	Foxborough Meeting Expectations	Foxborough Partially Meeting Expectations	Foxborough Not Meeting Expectations
Grade 3	50	47	4	46	43	6
Grade 4	53	48	9	44	41	7
Grade 5	35	49	0	35	56	8
Grade 6	48	50	1	47	40	11
Grade 7	45	50	5	40	50	5
Grade 8	47	49	5	42	50	3
Grades 3-8	46	49	4	42	47	7

Summary Data Statements – Grades 3-8 Next-Gen MCAS English language arts

GRADES 3-8: At the elementary levels (grades 3-4) the percent of students who met or exceeded the expectation were slightly above the state level while students at the middle school levels (grades 5-8) fell slightly below the state average on the 2017 Next-Gen MCAS test. These overall percentages do not reflect specifics in terms of different types of questions such as essay responses or constructed response questions. The variation between elementary and middle school question types likely contributed to the difference in performance.

Data to support:

- a. Across the district, 46% of all grade 3-8 students met or exceeded the expectation compared to 49% of the state. 50% of grade 3 students met or exceeded the expectation compared to 47% of the state, and 53% of grade 4 students met or exceeded the expectation compared to 48% of the state.

Root Causes:

- a. Next Gen MCAS is a different test than what students in this grade range have taken in the past.
- b. Variability of question types and total possible points for those types between grades 3 and 4 and grades 5-8.
- c. Grade 5 is a transition year.
- d. As part of our 2016-17 year long ELA program review, we had identified writing as an ongoing area of need. On October 6, 2017, our writing consultant provided professional development in previously identified areas

Next-Generation MCAS MATHEMATICS

2017 Next-Gen MCAS Mathematics						
	Foxborough % Exceeding and Meeting Expectations	*State % Exceeding and Meeting Expectations	Foxborough Exceeding Expectations	Foxborough Meeting Expectations	Foxborough Partially Meeting Expectations	Foxborough Not Meeting Expectations
Grade 3	59	49	6	53	34	6
Grade 4	52	49	6	46	42	6
Grade 5	52	46	4	48	39	9
Grade 6	63	49	5	58	30	7
Grade 7	67	47	8	59	30	2
Grade 8	77	48	19	58	19	4
Grades 3-8	62	48	8	54	32	6

Summary Data Statements – Grades 3-8 Next-Gen MCAS Mathematics

GRADES 3-8:

1. In all grades, Foxborough achievement is above the state average. At the elementary levels, the margins are more narrow. For example in Grade 3 59% of Foxborough students scored Exceeding Expectations/Meeting Expectations as compared with 49% of the State. In the middle school, the margins are greater with 77% of Foxborough 8th grade students Exceeding Expectations/Meeting Expectations as compared to 48% of the State.

Data to support:

- a. 2017 DESE Summary Report of State Results
- b. 2017 MCAS Math Item Analysis Reports

Root Causes:

- a. The 2017 test administration was the first experience with computer-based testing for students in grade 4.
- b. Although the assessment has changed, students in grades 5-8 have previous experience with computer-based testing.
- c. Teachers continue to collect and analyze data from common assessments. The Guided Math model is also empowering teachers to better meet the individual needs of students.

Summary Data Statements – Science Engineering Technology

GRADES 5-8:

1. During the 2015-2016 school year, the new Massachusetts Science and Technology Engineering standards were fully implemented at the Ahern Middle School. It is important to note that the science MCAS administered in spring 2017 assessed the previous standards. While the Department of Elementary and Secondary Education (DESE) assured us that we should not be concerned with a dip in our scores during this transition, and we experienced that dip last year, we are already seeing an increase in our overall achievement.

Data to support:

- a. MCAS Performance Categories Multi-Year Comparison

	Grade 5		Grade 8	
	P & A	W & NI	P & A	W & NI
2009	50%	50%	57%	43%
2010	55%	45%	57%	43%
2011	49%	51%	50%	50%
2012	62%	38%	58%	42%
2013	56%	45%	42%	58%
2014	54%	46%	50%	49%
2015	59%	41%	58%	42%
2016	53%	48%	51%	49%
2017	54%	46%	62%	38%

Root Causes:

- a. The grade 5 MCAS assessment incorporates concepts taught in grades 3, 4, and 5.
- b. The grade 8 MCAS assessment incorporates concepts taught in grades 6, 7, and 8.
- c. The new standards were only partially assessed on the spring 2017 assessment. Foxborough has fully transitioned to the new standards.
- d. As part of our transition plan, teachers have participated in multiple professional development offerings in Science.

MCAS – Science Engineering Technology

MCAS Data Science	NEW BASELINE 2010-2012 3- year rolling average	BENCHMARK Fall 2015 3-year benchmark goal	3 YEAR REPORT FALL 2015 2013-2015	NEW BASELINE 2014-2016 3- year rolling average	Fall 2017	BENCHMARK Fall 2019 3-year benchmark goal
Grade 5 % of students Advanced / Proficient	55.33	60	56.33	56	54	Due to new standards that will be phased in over the next two years, goals have not been set. *For detailed information on this transition refer to the "Transition Plan for MCAS STE Tests" included with this packet.
Grade 8 % of students Advanced / Proficient	55	60	50	54	62	

Ahern Middle School BASELINE AND BENCHMARKS GOALS

Scholastic Reading Inventory (SRI) Data	NEW BASELINE 2010-2012 3- year rolling average	BENCHMARK Fall 2015 3-year benchmark goal	3 YEAR REPORT FALL 2015 2013-2015	NEW BASELINE 2014-2016 3- year rolling average	Fall 2017	BENCHMARK Fall 2019 3-year benchmark goal
Grade 5 % of students Advanced / Proficient	78	80	83.9	84.3	90	86
Grade 6 % of students Advanced / Proficient	79	81	83.9	82.6	81	84
Grade 7 % of students Advanced / Proficient	84.6	86	86.4	84.8	85	87
Grade 8 % of students Advanced / Proficient	82.6	84	85.6	85.6	87	87

Elementary Schools Combined BASELINE AND BENCHMARK GOALS

Developmental Reading Inventory (DRA): % of students meeting the grade level benchmark on the June DRA	NEW BASELINE DRA2 (only 2012 data used)	BENCHMARK Fall 2015 3-year benchmark goal DRA2	3 YEAR REPORT FALL 2015 (2013-2015)	NEW BASELINE DRA2 (2014-2016)	Fall 2017 DRA2	BENCHMARK Fall 2019 3-year benchmark goal DRA2
Grade K (DRA level 3)	87	88	83.2	83.9	83	88
Grade 1 (DRA level 16)	64	67	67.0	68.9	63	73
Grade 2 (DRA level 28)	*58	*61	61.3	62.86	67	66.6
Grade 3 (DRA level 38)	62	65	62.6	60.6	67	65
Grade 4 (DRA level 40)	61	64	73.4	71.2	75	73.3

*written component enters at grade 2

Kindergarten Letter/Sound Identification:	NEW ASSESSMENT & New BASELINE (2012 data used)			BENCHMARK Fall 2015 3-year benchmark goal			3 YEAR REPORT FALL 2015 2013-2015			NEW BASELINE 2014-2016			FALL 2017			BENCHMARK FALL 2019 3 – year benchmark goal		
	UC	LC	S	UC	LC	S	UC	LC	S	UC	LC	S	UC	LC	S	UC	LC	S
Grade K	91	79	55	92	81	60	96.4	88.7	76.4	97	92.4	84.8	96	93	85	98	94.2	86.5

*UC/LC/S refer to uppercase, lowercase and letter sound identification

Mathematics: % of students meeting grade level benchmarks on new math assessments - June	NEW ASSESSMENT & New BASELINE (2012 data used)	BENCHMARK 2015 3-year benchmark goal	3 YEAR REPORT FALL 2015 2013-2015	New BASELINE (2014-2016)	Fall 2017	BENCHMARK 2019 3-year benchmark goal
Grade K	90	92	88*	92	86	92
Grade 1	82	84	91*	86	86	88
Grade 2	88	90	92*	89	92	91
Grade 3	74	78	79	79	82	81
Grade 4	81	83	81	80	84	83

*2 year rolling average used