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

Introduction:

There are currently 2,585 students enrolled in the Foxborough Public Schools: 813 at Foxborough High School, 842 at the Ahern Middle School, 311 at the Burrell Elementary School, 366 at the Igo Elementary School, and 224 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 2017 was $16,798 compared to the statewide average per pupil expenditure of $16,015. The following information provides further background and context for our baselines and goals for student achievement:

Students Eligible for Free or Reduced Lunch	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
District-Wide (excludes preschool)	16.19%	16.75%	16.62%	18.62%	*20.57%	18.29%
Foxborough High School	15.50%	15.10%	15.90%	18.38%	*21.29%	19.31%
Ahern Middle School	16.78%	18.11%	17.05%	20.47%	*21.97%	16.63%
Burrell Elementary School (excludes preschool)	15.30%	19.38%	15.98%	15.82%	*12.24%	19.20%
Igo Elementary School	20.41%	19.50%	18.73%	20.61%	*24.68%	24.04%
Taylor Elementary School	11.76%	12.31%	14.75%	12.35%	*14.77%	12.95%

* 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	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
District-Wide (includes out of district placements)	15.1%	15.62%	16.78%	17.60%	16.99%	18.98%
Foxborough High School	17.3%	16.72%	16.96%	18.14%	15.22%	15.62%
Ahern Middle School	17.1%	17.65%	18.13%	18.75%	20.67%	21.14%
Burrell Elementary School (excludes preschool)	12.1%	13.56%	16.80%	11.08%	12.66%	14.73%
Igo Elementary School	10.4%	13.50%	13.62%	16.54%	16.54%	19.13%
Taylor Elementary School	11.3%	11.94%	16.80%	13.58%	11.39%	16.52%

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 2018, 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 begin in Spring 2019 (the class of 2021).

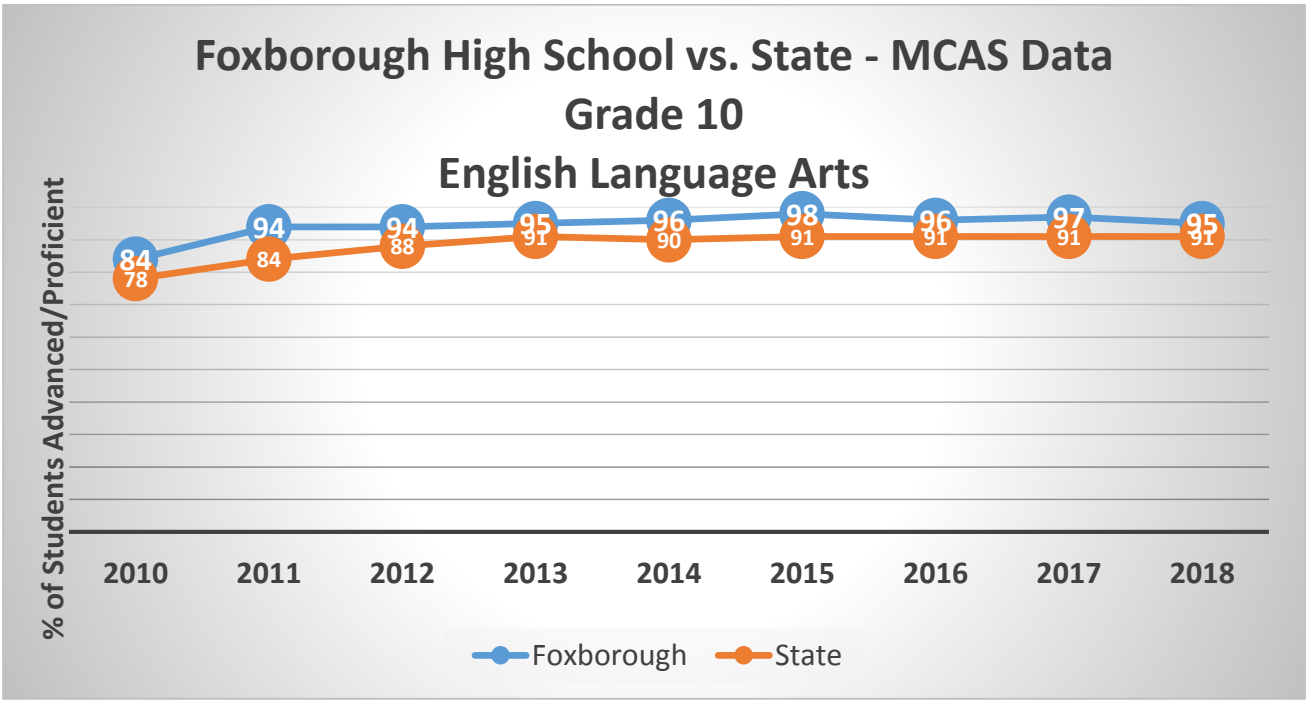
In 2018 the Next-Generation MCAS was administered in English language arts and math for grades 3-8. This assessment is an updated version of the nearly 20-year-old MCAS assessment. It focuses on both the content standards presented in the curriculum frameworks, as well as critical thinking abilities, 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 although paper versions are still available. Districts were required to administer the test online for all students grades 3-8. 2018 marks the first experience with computer-based testing for our third grade students.

As a reminder, the transition to Next-Generation MCAS resulted in new baselines set for all schools in Massachusetts. These achievement levels differ from the Legacy MCAS. A comparison of the achievement levels is provided later in this report with the grades 3-8 results. This is especially important since we have a mix of legacy MCAS (middle school science, and high school science ELA, math and science) and Next Generation MCAS (grades 3-8 math and ELA).

Foxborough High School 2018 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 *(2018 percentages based on 215 students)*	**Advanced**	**Proficient**	**Adv. & Prof.**	**Needs Improvement**	**Failure**	**NI & Fail.**
2018	**46**	**49**	**95**	**5**	**0**	**5**
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:

1. In 2018, 95% 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:
   a. MCAS Multi-Year Comparison for English Language Arts
   b. DESE Summary of State Results 2018

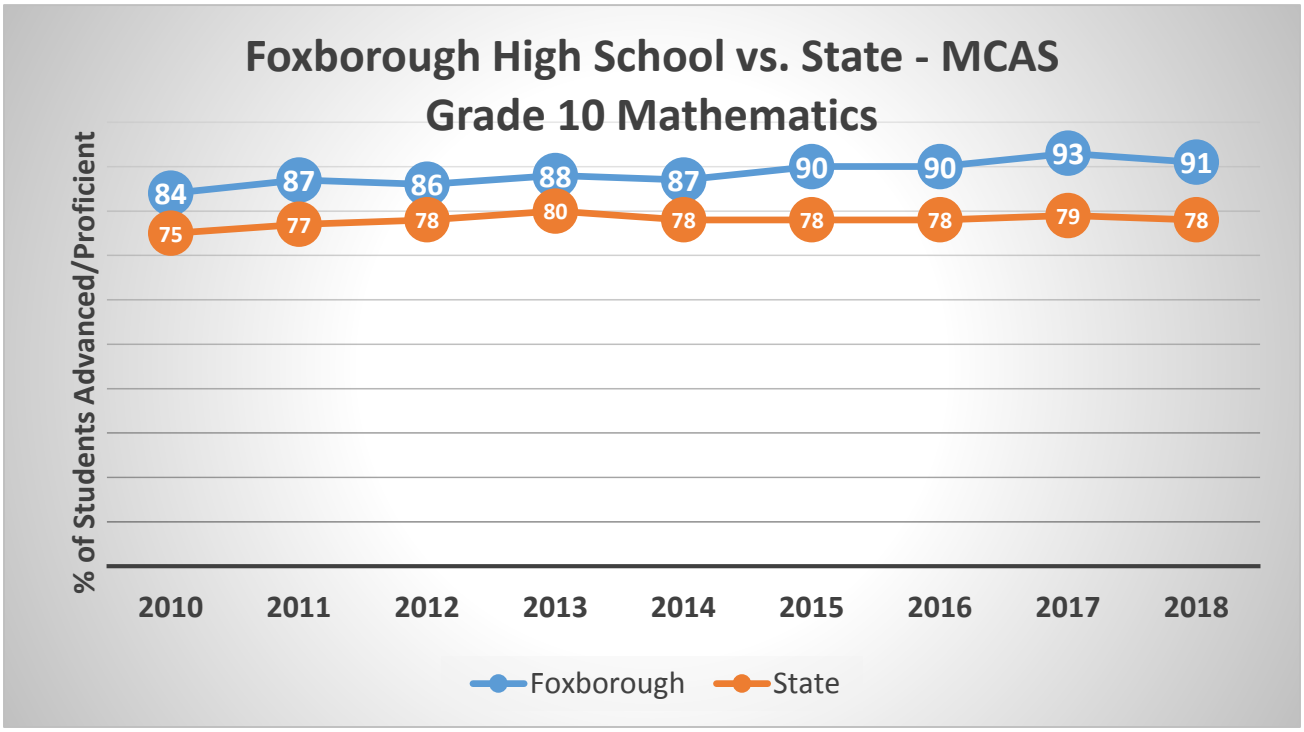
   Root Causes:
   a. Curriculum is closely aligned with state standards and implemented at all levels.
   b. Continued focus on skill-building in all grades and levels, including an increased focus on skills-based assessments.

   Action Steps:
   a. Continue to provide varied opportunities to practice reading/writing skills across the disciplines.
   b. Continue vocabulary and grammar instruction in every class, across grade and level.
   c. Continue to develop and utilize a variety of assessments to monitor students' knowledge and skills.
   d. Utilize the Question Formulation Technique to engage students in critical thinking.

FOXBOROUGH HIGH SCHOOL
MCAS - MATHEMATICS

GRADE 10
(2018 percentages based on 215 Students)

	Advanced	Proficient	Adv. & Prof.	Needs Improvement	Failing	NI & Fail.
2018	**65**	**26**	**91**	**6**	**3**	**9**
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:

1. In 2018, 91% of students at Foxborough High School achieved a rating of Proficient or Advanced on the grade 10 Mathematics portion of the MCAS exam. This continues to be above the state average of 78%.

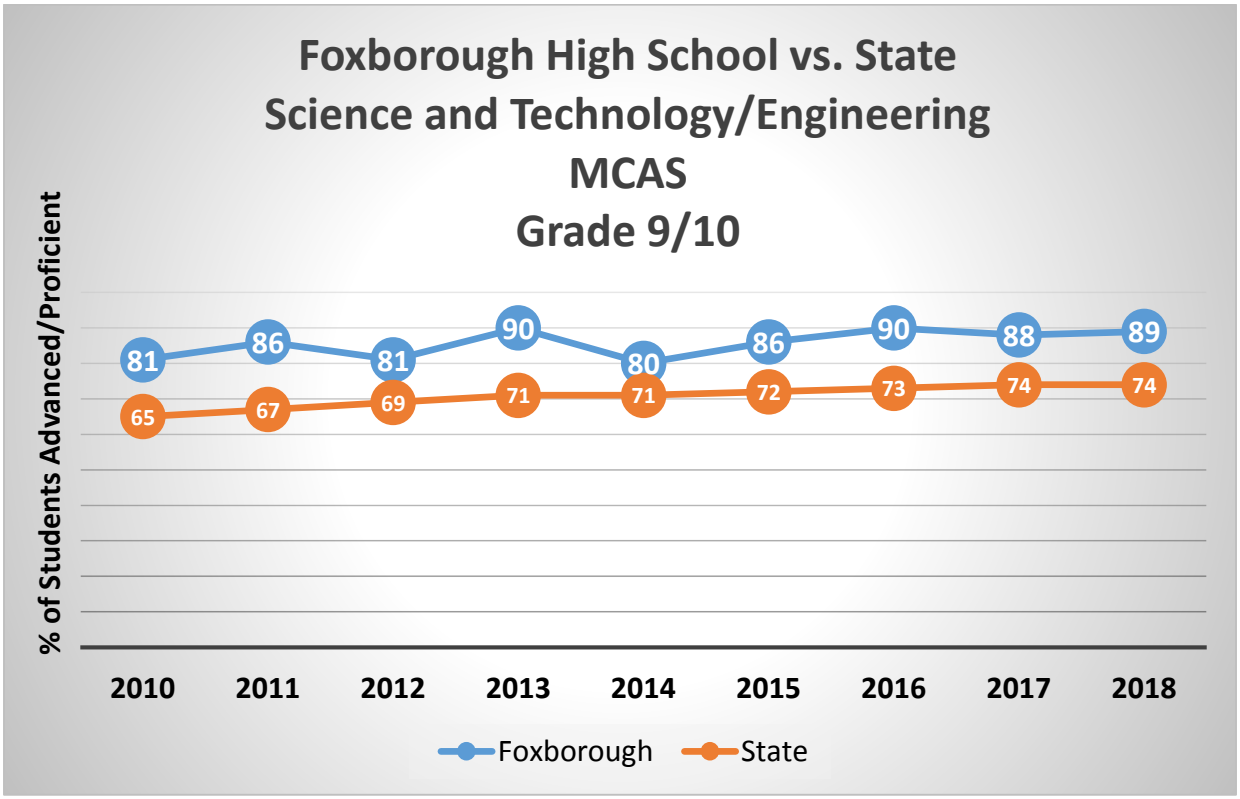
   Data to support:
   a. 2018 DESE Summary Report of State Results
   b. 2018 MCAS Math Item Analysis Reports

   Root Causes:
   a. Started the use of ALEKS, an online artificial intelligence assessment and learning system that uses adaptive questioning to assess a student's topic readiness, in all freshmen CP classes. It is also used in some of the sophomore classes to provided additional support for at risk students.
   b. Math boot camp for at risk students.
   c. Curriculum is closely aligned with state standards and implemented across all levels.

   Action Steps:
   a. Continue to increase use of formative assessments with frequent feedback given to students.
   b. Continued work in the classroom on writing for open response questions.

FOXBOROUGH HIGH SCHOOL
MCAS - SCIENCE AND TECHNOLOGY

GRADE 9/10 *(2018 percentages based on 203 Students*	**Advanced**	**Proficient**	**Adv. & Prof.**	**Needs Improvement**	**Failure**	**NI & Fail.**
2018	**34**	**55**	**89**	**9**	**2**	**11**
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



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 2018**	BENCHMARK Fall 2019 3-year benchmark goal
Grade 9/10 % of students Advanced / Proficient	82.67	85	85%	85.7%	**89%**	88%

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

Summary Data Statements – Science & Technology/Engineering

GRADE 9/10: 2018 MCAS BIOLOGY EXAM

1. In 2018, 89% of Foxborough High School students achieved a rating of Proficient or Advanced on the grade 10 Science portion of the MCAS exam. This continues to be above the state average of 74%. High School students exceeded the state by 12% of students scoring Advanced in 2018. The vast majority, 95.5%, of these students were in grade 9 and took the Biology exam.

   Data to support:
   a. 2018 DESE Summary Report of State Results
   b. 2018 MCAS Science Item Analysis Report

Root Causes:

a. Written Curriculum is in close alignment with 2006 state standards.
b. Biology Boot Camp for at risk students.
c. Increased use of formative assessments with immediate feedback.

Action Steps:

a. Continue to realign curriculum to 2016 MA STE frameworks
b. Increase focus on scientific practices, and update assessments to reflect curricular changes.

Foxborough High School: BASELINE AND BENCHMARKS GOALS

Advanced Placement Tests

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	**2018**	BENCHMARK Fall 2019 3-year benchmark goal
# of AP students	128	143	165	192	**204**	203
# of tests administered	241	305	321	374	**432**	430
Percentage Scoring 3 or better (0-5 scale)	83%	83%	84%	78.6%	**79.9%**	79%

Advanced Placement (AP) Data (Average Score)	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
# of AP students	127	140	163	192	220	195	**204**
# of tests administered	240	299	303	362	458	427	**432**
# of AP students Scoring 3 or better (0-5 scale)	107	125	128	161	162	151	**163**
Percentage Scoring 3 or better (0-5 scale)	84.3%	89.3%	78.5%	83.9%	73.6%	77.4%	**79.9%**

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	**2018**	BENCHMARK Fall 2019 3-year benchmark goal
CRITICAL READING	524.33	530	537	526	**phased out in 2016*	531
CRITICAL WRITING	533.33	545	541	527	**phased out in 2016*	532
EVIDENCE BASED READING& WRITING					**560**	Benchmark goal to be determined
MATH	547.33	550	549	536	**574**	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	**2018**	BENCHMARK Fall 2019 3-year benchmark goal
ENGLISH	22.1	23.1	22.7	22.7	**24**	24
MATH	23.1	24.1	23.3	23.2	**23.8**	24
READING	22.8	23.8	23.8	24.0	**24.8**	24
SCIENCE	22.0	23.0	22.6	22.9	**23.7**	24
COMPOSITE	22.6	23.6	23.3	23.2	**24.2**	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	**2018**	BENCHMARK Fall 2019 3-year+ benchmark goal
Total percentage of Continuing Education	91.67	92	90%	90%	**90%**	92%

State Standardized Assessments

In 2017, Massachusetts transitioned to the Next-Generation MCAS. This new assessment replaced the Legacy MCAS in grades 3-8 ELA and math, and reported achievement levels differently. As a reminder, a comparison of the reporting levels is provided below.

MCAS Achievement Levels	
★ Legacy	★ Next-Generation
Advanced Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter, and provide sophisticated solutions to complex problems. **Proficient** Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems. **Needs Improvement** Students at this level demonstrate a partial understanding of subject matter and solve some simple problems. **Warning** Students at this level demonstrate a minimal understanding of subject matter and do not solve simple problems.	**Exceeding Expectations** A student who performed at this level exceeded grade-level expectations by demonstrating mastery of the subject matter. **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. **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. **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.

Other Important Notes:

- Spring 2018 is year two of the new Next-Generation MCAS assessment. 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 3-8 in Foxborough took the test online. This was the first year that 3rd grade students participated in the computer-based assessment.

- Students in 10th grade took the Legacy MCAS in 2018 but will begin taking the Next Generation MCAS in Spring 2019. This will be a computer-based assessment.

- The next-generation MCAS is a new test with a different approach to assessing student performance in grades 3-8. Results are now intended to signal readiness for the next grade level as opposed to achievement in the grade level assessed.

Next-Generation MCAS Grades 3-8 ENGLISH LANGUAGE ARTS

2018 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	**57**	52	8	49	39	4
Grade 4	**54**	53	6	48	41	5
Grade 5	**53**	54	4	49	42	5
Grade 6	**51**	50	4	47	41	8
Grade 7	**51**	46	8	43	38	11
Grade 8	**42**	51	5	37	49	8
Grades 3-8	**51**	51	6	46	41	7

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

GRADES 3-8: In grades 3, 4, 6 and 7, the percent of students who met or exceeded the expectations on the 2018 Next Gen MCAS test was above the state level. The percent of students in grade 5 who met or exceeded expectations was just slightly below the state, while there was a greater gap between our grade 8 students and the state. These overall percentages do not reflect the gains made on specific standards by grade level in comparison to last year.

Data to support:

a. The percent of grade 8 students meeting or exceeding the expectations was 42% compared to 51%, for the state. 57% of grade 3 students met or exceeded the expectation compared to 52% of the state, and 51% of grade 7 students met or exceeded the expectation compared to 46% of the state. At both the district and state level, 51% of all students tested in grades 3-8 students met or exceeded expectations.

Root Causes:

a. The rigor of our district assessments did not match that of the state assessment.
b. Some grade level resources still being updated as outcomes of ELA curriculum review.

Action Steps:

c. Implementation of new standards-aligned Illuminate assessment platform.
d. Full implementation of Study Sync in grades 6 and 8.
e. Continued targeted instruction around essay type questions consistently across the grade levels.
f. Ongoing professional development around data informed literacy instruction.

State Standardized Assessments Cont'd…

Next-Generation MCAS Grades 3-8 MATHEMATICS

2018 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	**61**	50	11	50	35	4
Grade 4	**59**	48	7	52	35	7
Grade 5	**53**	46	4	48	41	6
Grade 6	**63**	47	7	57	32	4
Grade 7	**63**	46	8	56	30	6
Grade 8	**76**	50	9	67	19	5
Grades 3-8	**63**	48	7	55	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. Our students leaving the middle school as eighth graders have the highest percentage of Exceeding Expectations/Meeting Expectations at 76%, which is 26 percentage points above the state. Foxborough eighth graders have consistently outperformed the state by large margins, which shows the impact of a strong vertical instructional program.

   Data to support:
   a. 2018 DESE Summary Report of State Results
   b. 2018 MCAS Math Item Analysis Reports

   Root Causes:
   a. Spring 2018 was the first experience with online testing for grade 3.
   b. District assessments in need of revision to better reflect the rigor of the standards.

   Action Steps:
   c. Continue to normalize computer usage, even at the youngest grades, through experiences such as Typing Club, Buzz, and Illuminate for online math unit assessments.
   d. Continue revision of district assessments using Illuminate.
   e. Continue to collect and analyze data from common assessments and employ the Guided Math model to empower teachers to better meet the individual needs of students.

Summary Data Statements – Science Engineering Technology

GRADES 5-8:

1. Although the revised MA STE frameworks were formally published by the state in April, 2016, FPS has been implementing these standards since 2015. As previously discussed, the Next Generation Science MCAS, reflecting the changes in these standards, will be administered *for the first time in Spring 2019*. It is important to note that the Spring 2018 science MCAS assessed the 2001/2006 standards.

   Data to support:

   a. Legacy MCAS Performance Categories Multi-Year Comparison

	Grade 5		Grade 8	
	P & A	**W & NI**	**P & A**	**W & NI**
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%**
2018	**50%**	**50%**	**45%**	**55%**

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 2018 assessment. Foxborough has fully transitioned to the new standards.
d. Professional development offerings in Science focus more heavily on the Practices, which emphasize critical thinking and inquiry versus discrete content. The 2018 MCAS has not yet shifted to match this focus.

Action Steps:

e. Continue to focus on inquiry-based approach, practice standards, and 21st Century Skills.
f. Upgrade assessments through the Illuminate platform.

Legacy 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 2018**	BENCHMARK Fall 2019 3-year benchmark goal
Grade 5 % of students Advanced / Proficient	55.33	60	56.33	56	**50**	Due to new standards that will be phased in over the year, 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	**45**	

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 2018 DRA2**	BENCHMARK Fall 2019 3-year benchmark goal DRA2
Grade K (DRA level 3)	87	88	83.2	83.9	**86**	88
Grade 1 (DRA level 16)	64	67	67.0	68.9	**67**	73
Grade 2 (DRA level 28)	*58	*61	61.3	62.86	**69**	66.6
Grade 3 (DRA level 38)	62	65	62.6	60.6	**72**	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 2018**			BENCHMARK FALL 2019 3 – year benchmark goal		
Grade K	91	79	55	92	81	60	96.4	88.7	76.4	97	92.4	84.8	96	89	83	**98**	**94.2**	**86.5**
	UC	**LC**	**S**	**UC**	**LC**	**S**	**UC**	**LC**	**S**	**UC**	**LC**	**S**	**UC**	**LC**	**S**	**UC**	**LC**	**S**

***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 2018**	BENCHMARK 2019 3-year benchmark goal
Grade K	90	92	88*	92	**89**	92
Grade 1	82	84	91*	86	**89**	88
Grade 2	88	90	92*	89	**89**	91
Grade 3	74	78	79	79	**81**	81
Grade 4	81	83	81	80	**83**	83

*2 year rolling average used