

Accountability Results Overview

Rockland Public Schools
Rockland, Massachusetts 02370

Presentation to Board of Selectmen 12.4.18

2018 MCAS Context

- ▶ Grades 4–8 tested on computer, grade 3 paper
- ▶ MCAS 2.0 in ELA and Math
 - More rigorous items
- ▶ Legacy MCAS in grade 5 and 8 and 9 Science
- ▶ Accountability system changes
 - Targets for 2018 based on 2017
 - “Lowest Performing” students subgroup
 - Still “compare to self” and “compare to others” measures

What is MCAS 2.0?

- Updated version of the nearly 20-year-old MCAS assessment
- Focuses on students' critical thinking abilities, application of knowledge, and ability to make connections between ELA and writing
- Designed to be given on a computer
- Based on PARCC test
- First given in spring 2017
- Will eventually replace all older legacy tests

What's Different about MCAS 2.0?

- ▶ Designed to be given on computer
- ▶ Writing in response to text in every grade
- ▶ Technology-enhanced items
- ▶ Multi-part questions
- ▶ Items designed to measure “above the bar”
- ▶ Built-in accessibility features
- ▶ Still untimed
- ▶ Still focused on *Massachusetts State Frameworks*

Legacy MCAS

Advanced (260–280)

Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter, and provide sophisticated solutions to complex problems.

Proficient (240–258)

Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems.

Needs Improvement (220–238)

Students at this level demonstrate a partial understanding of subject matter and solve some simple problems.

Warning (200–218)

Students at this level demonstrate a minimal understanding of subject matter and do not solve simple problems.

MCAS 2.0

Exceeding Expectations (530–560)

A student who performed at this level exceeded grade-level expectations by demonstrating mastery of the subject matter.

Meeting Expectations (500–529)

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 (470–499)

A student who performed at this level partially met grade-level expectations in this subject.

Not Meeting Expectations (440–469)

A student who performed at this level did not meet grade-level expectations in this subject.

GRADE 3

Students exceeding or meeting expectations

- ELA + 10%
- MATH + 4%

School Highlights

- Esten: Reading +14%, Math +10%
- Memorial Park: Reading +8%, Math – no change
- Jefferson: Reading +16%, Math +4

Grade 4

Students exceeding or meeting expectations:

- ▶ There was a 2% drop in ELA but a 4% improvement in Math

School highlights:

- ▶ Esten: Math +7%
- ▶ Memorial Park: Math + 3%
- ▶ Jefferson: Math +4%

Grade 5 – Rogers Middle School

Exceeding or meeting expectations:

Grade 5 saw a decrease in math scores and an increase in ELA

- ▶ Math – 2%
- ▶ ELA +13%

Grade 6 – Rogers Middle School

Exceeding or meeting expectations:

Grade 6 saw a decrease in math scores and ELA scores

- ▶ Math -11%
- ▶ ELA -2%

GRADE 7

Exceeding or meeting expectations:

Students in grade 7 improved in Math and were flat in ELA

- ▶ Math +6%
- ▶ ELA +0%

GRADE 8

Exceeding or meeting expectations:

Students in grade 8 improved in both Math and ELA

- ▶ **Math +7%**
- ▶ **ELA +18%**

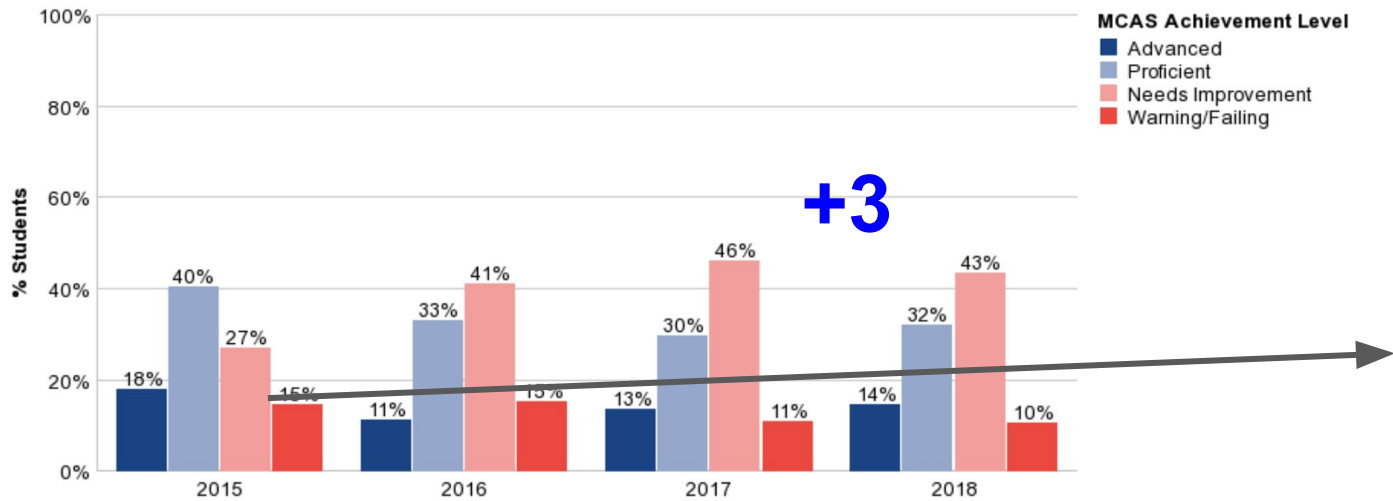
Science

- ▶ The Science MCAS is given at grades 5, 8 and 10.
- ▶ All grades showed improvement over the previous year
 - Grade 5 +3%
 - Grade 8 +7%
 - Grade 10 + 8%

SCIENCE GRADE 5

* Public School District
 * 2018 * Science and Technology/Engineering * Rockland
 * Color Clustered Bar Chart * Grade 5 * All Students

Student Group: All Students



	2015		2016		2017		2018	
	District	State	District	State	District	State	District	State
CPI	82.0	78.2	76.1	76.4	76.6	75.3	77.0	76.5
Advanced	18%	16%	11%	16%	13%	17%	14%	18%
Proficient	40%	35%	33%	31%	30%	29%	32%	30%
Needs Improvement	27%	37%	41%	38%	46%	39%	43%	39%
Warning/Failing	15%	13%	15%	14%	11%	15%	10%	13%
N Students	178	70,861	164	69,681	158	70,312	173	72,055
Mean SGP								
Median SGP								

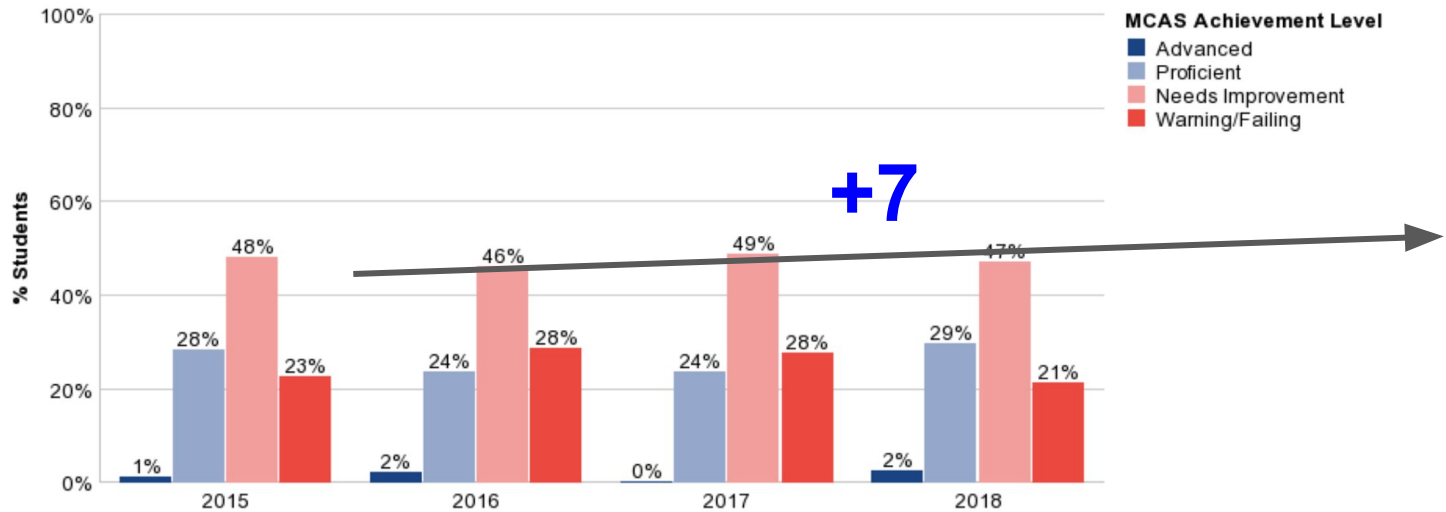
NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Median student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

SCIENCE GRADE 8

* Public School District
 * 2018 * Science and Technology/Engineering * Rockland
 * Color Clustered Bar Chart * Grade 8 * All Students

Student Group: All Students



	2015		2016		2017		2018	
	District	State	District	State	District	State	District	State
CPI	65.5	72.4	60.0	71.3	60.5	70.6	67.4	68.3
Advanced	1%	3%	2%	6%	0%	3%	2%	4%
Proficient	28%	39%	24%	35%	24%	37%	29%	31%
Needs Improvement	48%	40%	46%	40%	49%	40%	47%	44%
Warning/Failing	23%	18%	28%	19%	28%	20%	21%	21%
N Students	173	71,860	211	70,640	178	71,041	180	71,562
Mean SGP								
Median SGP								

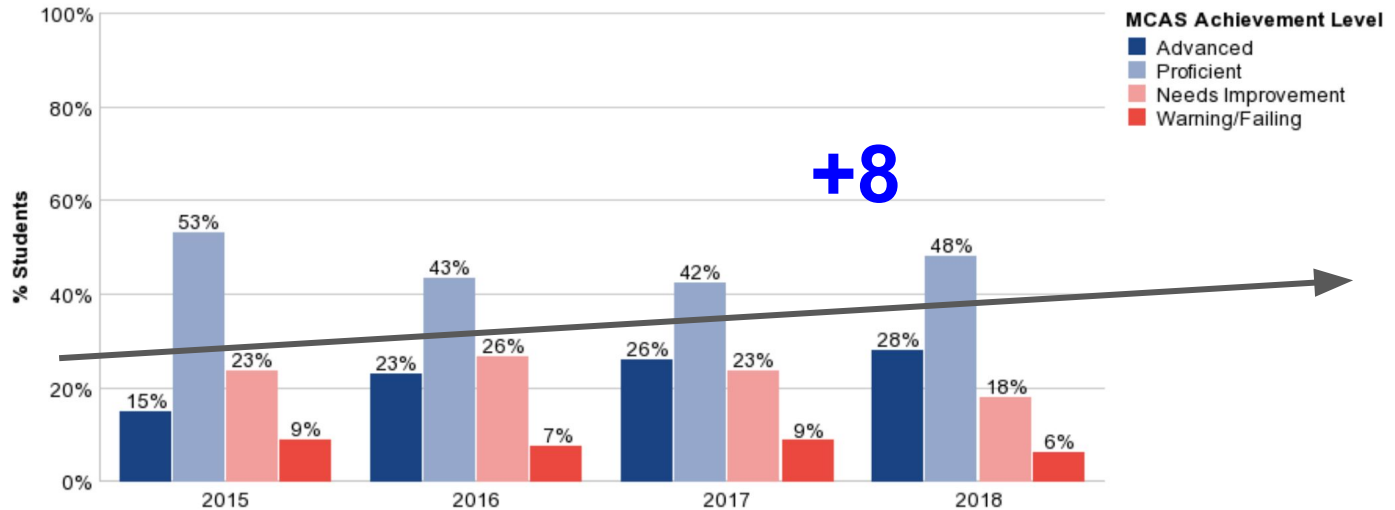
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BIOLOGY GRADE 9/10

* Public School District
 * 2018 * HS Biology * Rockland
 * Color Clustered Bar Chart * HS (09, 10) * All Students

Student Group: All Students



	2015		2016		2017		2018	
	District	State	District	State	District	State	District	State
CPI								
Advanced	15%	27%	23%	34%	26%	34%	28%	28%
Proficient	53%	46%	43%	41%	42%	41%	48%	45%
Needs Improvement	23%	19%	26%	17%	23%	18%	18%	19%
Warning/Failing	9%	7%	7%	8%	9%	7%	6%	8%
N Students	149	51,103	136	51,903	175	53,432	129	54,391
Mean SGP								
Median SGP								

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Median student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

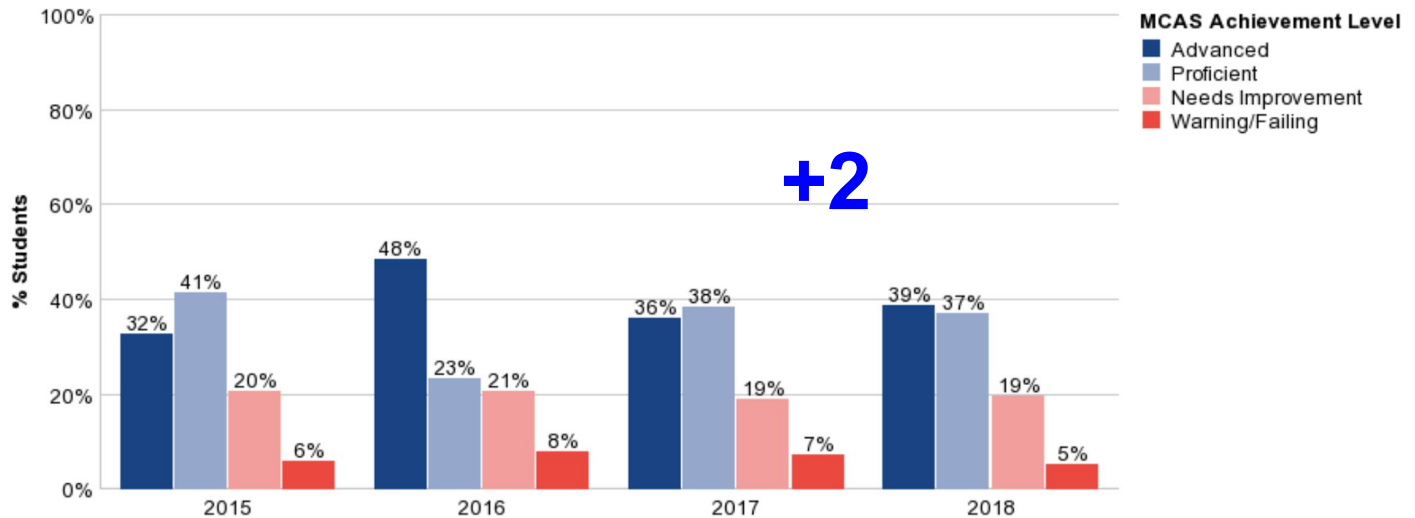
High School Math and ELA

- ▶ In Math there was a 2% increase in the number of students achieving proficient and advanced while the number of students reaching the advanced level increased by 3%.
- ▶ There was a slight decrease in MCAS scores in ELA. This statistic is misleading since at 92% (down from 95%), almost all the students are achieving at the advanced or proficient level. The number of students achieving the advanced level increased 3%.

MATH GRADE 10

* Public School District
 * 2018 * Mathematics * Rockland
 * Color Clustered Bar Chart * Grade 10 * All Students

Student Group: All Students



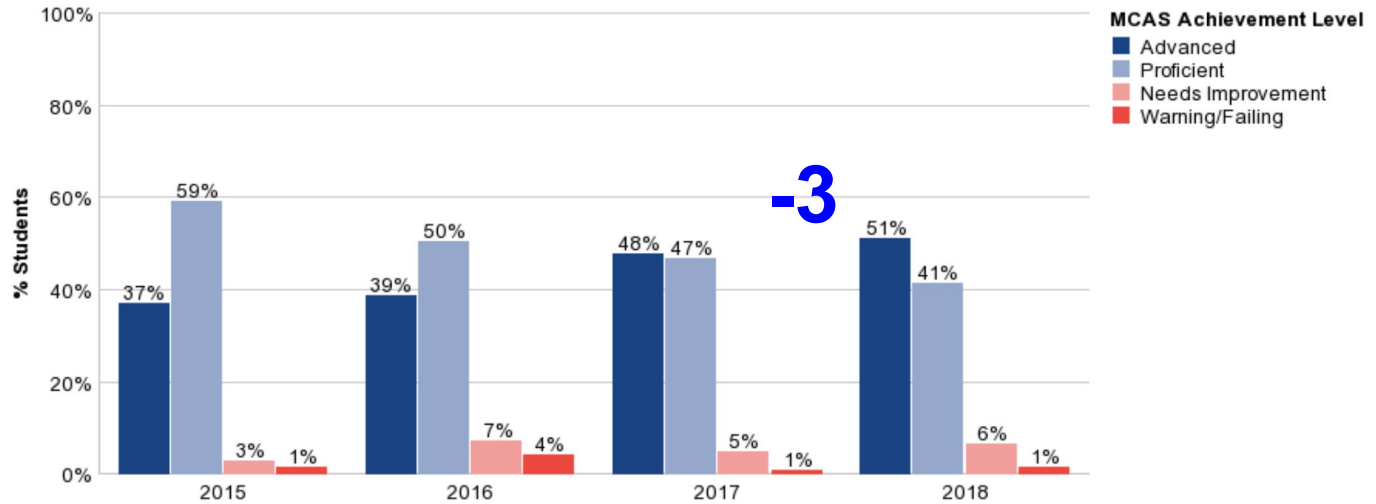
	2015		2016		2017		2018	
	District	State	District	State	District	State	District	State
CPI	89.6	89.9	88.2	89.7	88.5	89.9	88.0	89.5
Advanced	32%	53%	48%	54%	36%	53%	39%	51%
Proficient	41%	25%	23%	24%	38%	26%	37%	27%
Needs Improvement	20%	13%	21%	15%	19%	14%	19%	14%
Warning/Failing	6%	8%	8%	8%	7%	8%	5%	8%
N Students	157	69,766	155	69,954	128	70,340	160	70,187
Mean SGP							41.3	49.9
Median SGP	40.5	50.0	45.0	50.0	37.0	50.0		

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Median student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

ELA GRADE 10

* Public School District
 * 2018 * English Language Arts * Rockland
 * Color Clustered Bar Chart * Grade 10 * All Students
 Student Group: All Students



	2015		2016		2017		2018	
	District	State	District	State	District	State	District	State
CPI	98.8	96.7	96.1	96.7	97.5	96.5	97.3	96.2
Advanced	37%	49%	39%	47%	48%	47%	51%	51%
Proficient	59%	42%	50%	45%	47%	44%	41%	40%
Needs Improvement	3%	6%	7%	6%	5%	6%	6%	6%
Warning/Failing	1%	3%	4%	3%	1%	3%	1%	3%
N Students	152	69,751	155	69,937	128	70,268	160	70,532
Mean SGP							56.8	49.9
Median SGP	39.5	51.0	44.5	50.0	57.0	50.0		

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Median student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

HIGHLIGHTS: ACHIEVEMENT

ESTEN GRADE 3 ELA



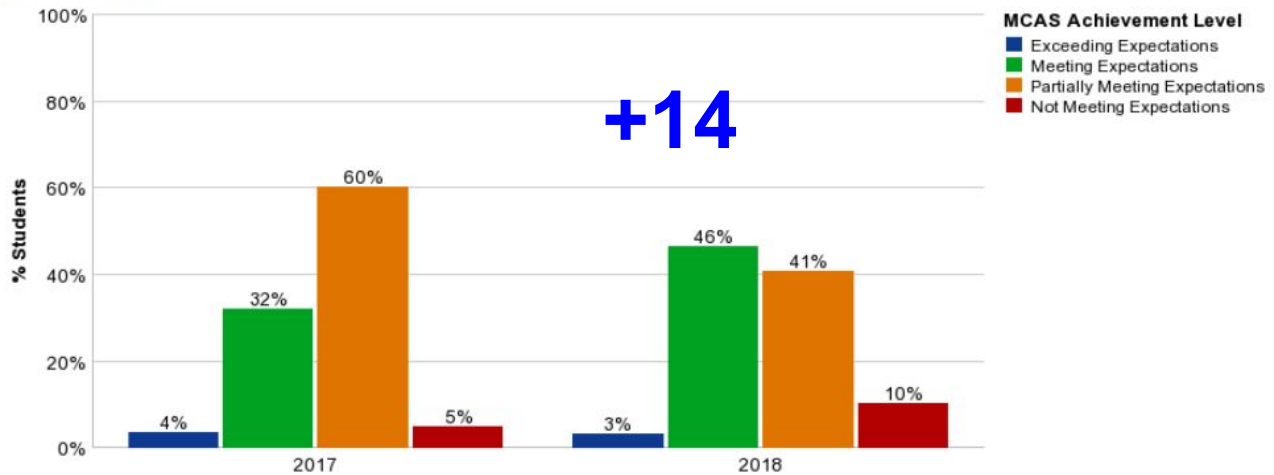
School Achievement Distribution by Year English Language Arts

District: Rockland
School: R Stewart Esten
Grade: 03



* 2018 * English Language Arts * Rockland * Color Clustered Bar Chart * Submit
* All Students * Grade 3 * R Stewart Esten

Student Group: All Students



HIGHLIGHTS: ACHIEVEMENT

ESTEN GRADE 3 MATH

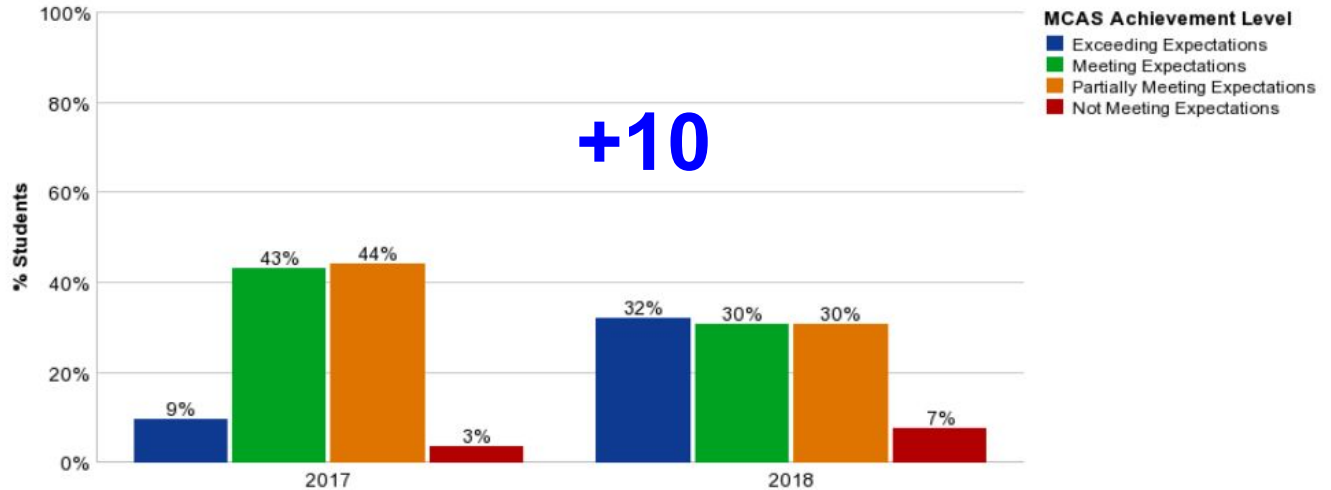


School Achievement Distribution by Year Mathematics

District: Rockland
School: R Stewart Esten
Grade: 03

* 2018 * Mathematics * Rockland * Color Clustered Bar Chart * Submit
* All Students * Grade 3 * R Stewart Esten

Student Group: All Students



HIGHLIGHTS: GROWTH

JEFFERSON ELA



Spring 2018 MCAS School Growth Distribution English Language Arts AL

District: Rockland
Subject: English Language Arts

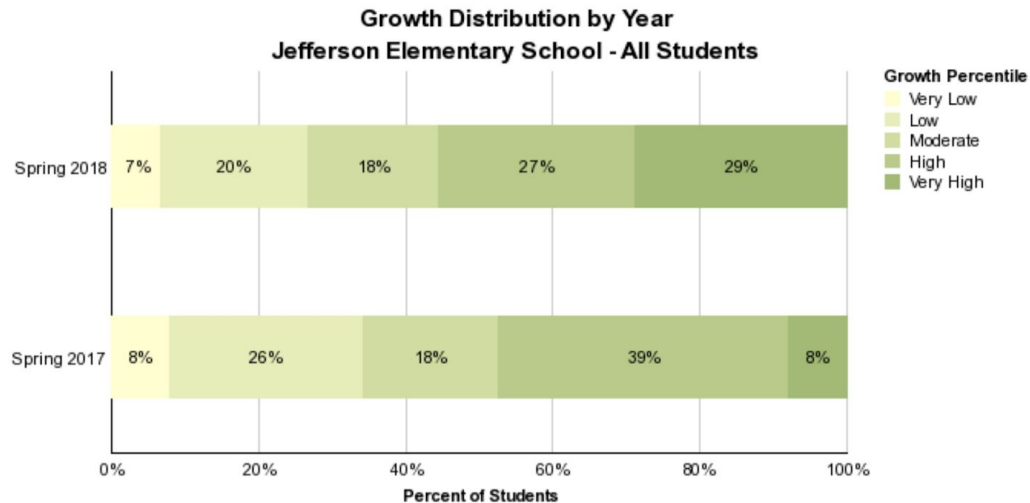
Single Year / Single Grade
 Single Year / Multiple Grades
 Multiple Years / Single Grade
 Graduating Class

* Spring 2018
 * English Language Arts
 * Rockland

Jefferson Elementary School
 John W Rogers Middle
 McKinley School
 Memorial Park
 R Stewart Esten
 Rockland Senior High

* Grades 3-8
 * All Students

[Select all](#) [Deselect all](#)



Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

Test	Very Low	Low	Moderate	High	Very High	Median SGP	Mean SGP	N Students (SGP)	% Meeting or Exceeding Expectations	N Students (Ach. Level)
Spring 2018	3	9	8	12	13		59.6	45	41	102
Spring 2017	3	10	7	15	3	59.0		38	31	91

Aggregate student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

HIGHLIGHTS: GROWTH

JEFFERSON MATH

- Single Year / Single Grade
- Single Year / Multiple Grades
- Multiple Years / Single Grade
- Graduating Class

* Spring 2018

* Mathematics

* Rockland

* Jefferson Elementary School

John W Rogers Middle

McKinley School

Memorial Park

R Stewart Esten

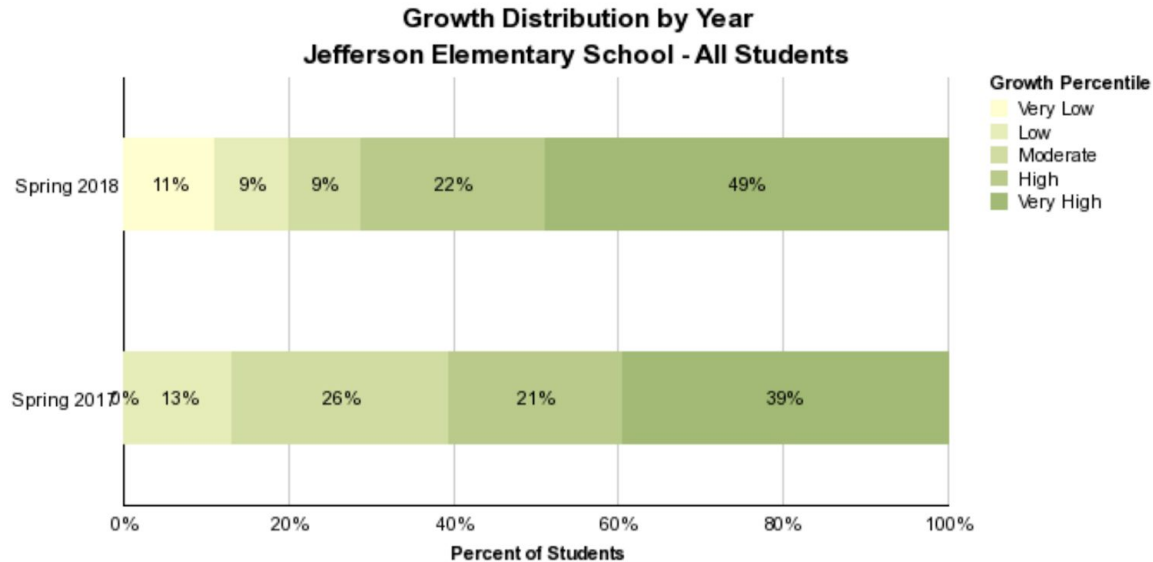
Rockland Central High

[Select all](#) [Deselect all](#)

* Grades 3-8

* All Students

Submit



Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

Test	Very Low	Low	Moderate	High	Very High	Median SGP	Mean SGP	N Students (SGP)	% Meeting or Exceeding Expectations	N Students (Ach. Level)
Spring 2018	5	4	4	10	22		70.4	45	39	102
Spring 2017	0	5	10	8	15	71.0		38	34	91

Aggregate student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

HIGHLIGHTS: GROWTH MEMORIAL PARK MATH

* Spring 2018 ▾

* Mathematics ▾

* Rockland ▾

* Jefferson Elementary School

* John W Rogers Middle

* McKinley School

* Memorial Park

* R Stewart Esten

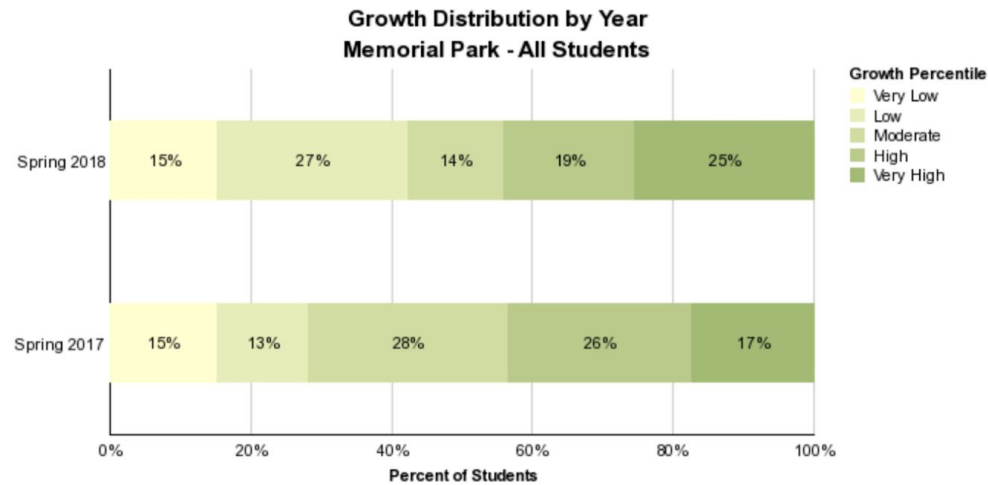
* Rockland Charter List

[Select all](#) [Deselect all](#)

* Grades 3-8 ▾

* All Students ▾

Submit



Test	Very Low	Low	Moderate	High	Very High	Median SGP	Mean SGP	N Students (SGP)	% Meeting or Exceeding Expectations	N Students (Ach. Level)
Spring 2018	9	16	8	11	15		52.1	59	36	107
Spring 2017	7	6	13	12	8	57.5		46	33	108

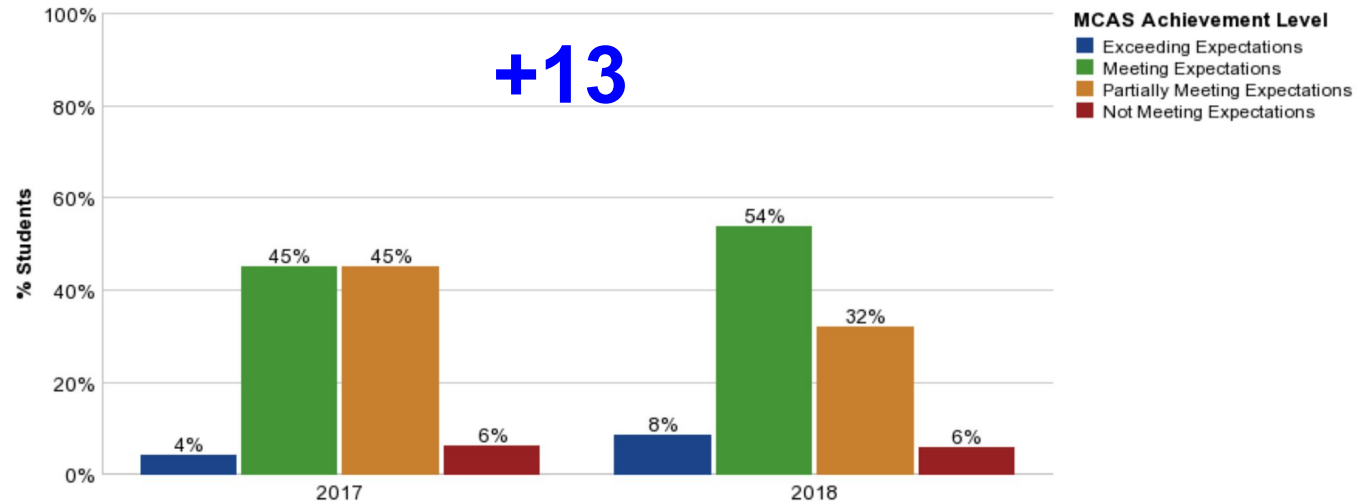
Aggregate student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

HIGHLIGHTS: ACHIEVEMENT

RMS ELA GRADE 5

* 2018 * English Language Arts * Rockland * Color Clustered Bar Chart
 * All Students * Grade 5 * John W Rogers Middle

Student Group: All Students



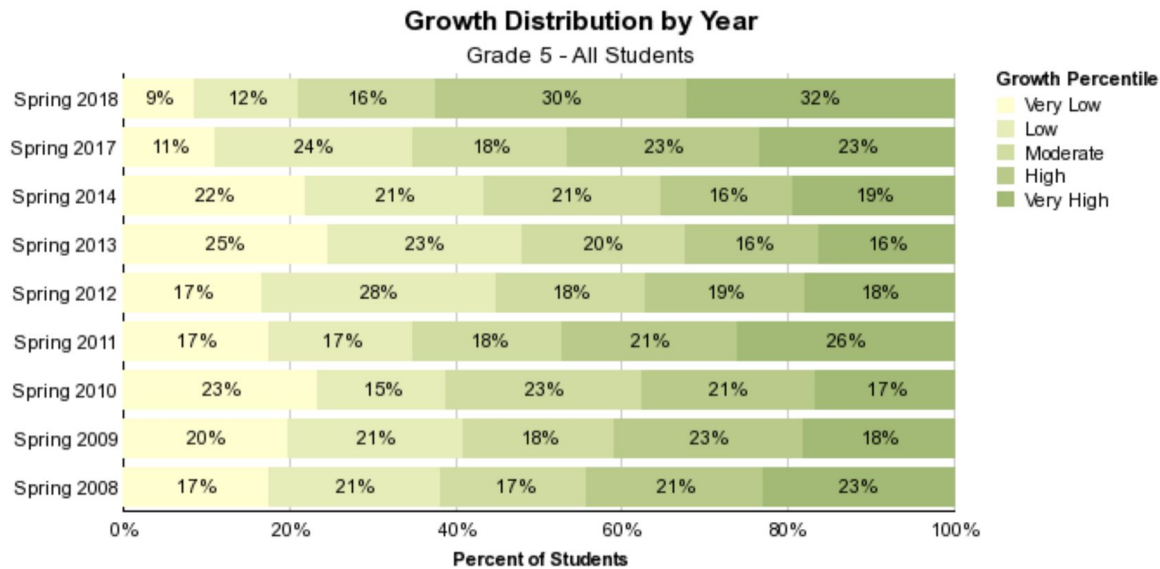
	2015	2016	2017		2018			
	State	State	School	District	State	School	District	State
CPI								
Exceeding Expectations			4%	4%	6%	8%	8%	6%
Meeting Expectations			45%	45%	43%	54%	51%	48%
Partially Meeting Expectations			45%	44%	42%	32%	35%	38%
Not Meeting Expectations			6%	7%	10%	6%	6%	8%
Avg Scaled Score			499.7	499.4	498.9	505.9	504.6	501.9
N Students			149	157	70,380	156	173	72,121
Mean SGP						63.4	63.4	50.1
Median SGP			58.0	58.0	50.0			

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Median student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

HIGHLIGHTS: GROWTH

GRADE 5 RMS



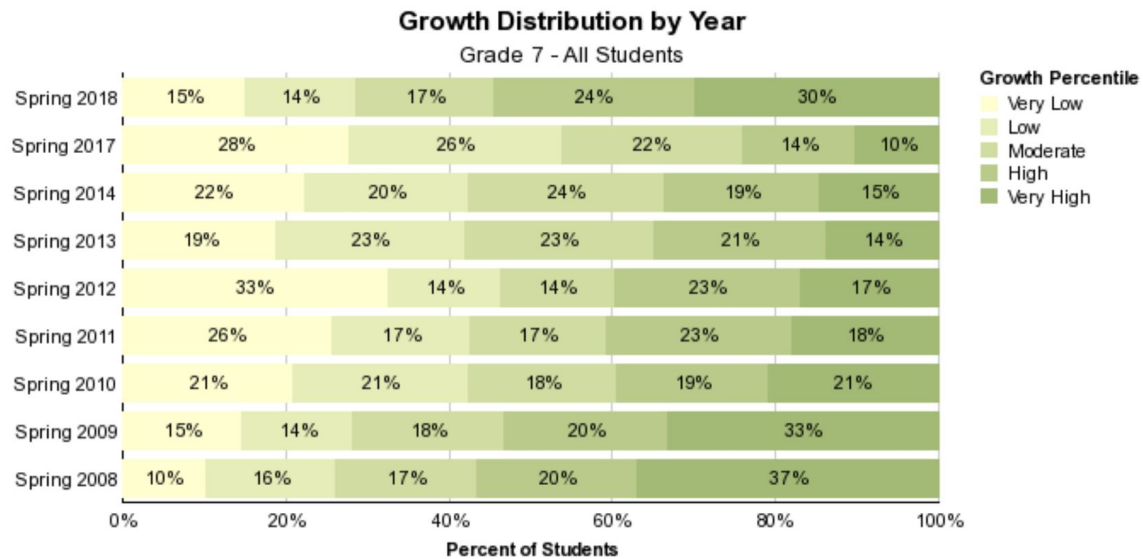
Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

Test	Very Low	Low	Moderate	High	Very High	Median SGP	Mean SGP	N Students (SGP)	% Proficient or Higher	% Meeting or Exceeding Expectations	N Students (Ach. Level)
Spring 2018	13	19	25	46	49		63.4	152		59	173
Spring 2017	16	35	27	34	34	58.0		146		49	157
Spring 2014	33	32	32	24	29	47.0		150	66		170
Spring 2013	44	42	35	29	29	43.0		179	57		204
Spring 2012	26	44	28	30	28	48.0		156	57		167
Spring 2011	30	30	31	36	45	57.5		172	61		196
Spring 2010	38	25	38	34	27	53.0		162	58		185
Spring 2009	35	37	32	40	32	50.0		176	54		194
Spring 2008	32	38	32	39	42	52.0		183	61		192

Aggregate student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

HIGHLIGHTS: GROWTH

GRADE 7

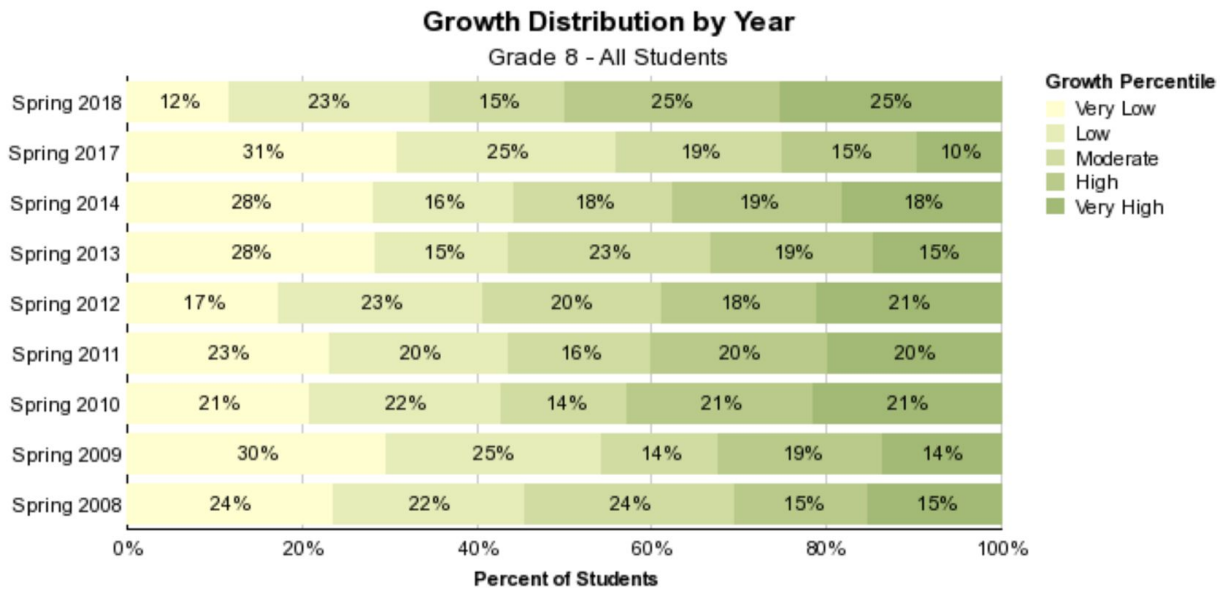


Test	Very Low	Low	Moderate	High	Very High	Median SGP	Mean SGP	N Students (SGP)	% Proficient or Higher	% Meeting or Exceeding Expectations	N Students (Ach. Level)
Spring 2018	22	20	25	36	44		59.7	147		44	164
Spring 2017	44	41	35	22	16	35.5		158		44	172
Spring 2014	38	34	41	32	25	45.5		170	65		181
Spring 2013	34	42	42	38	25	48.0		181	63		199
Spring 2012	54	23	23	38	28	46.0		166	64		180
Spring 2011	43	28	28	38	30	48.0		167	64		180
Spring 2010	37	38	32	33	37	50.0		177	66		192
Spring 2009	27	25	34	37	61	63.5		184	64		198
Spring 2008	17	27	29	33	62	68.0		168	69		178

Aggregate student growth percentile (SGP) is not calculated if the number of students with SGP is less than 20.

HIGHLIGHTS: GROWTH

GRADE 8



Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

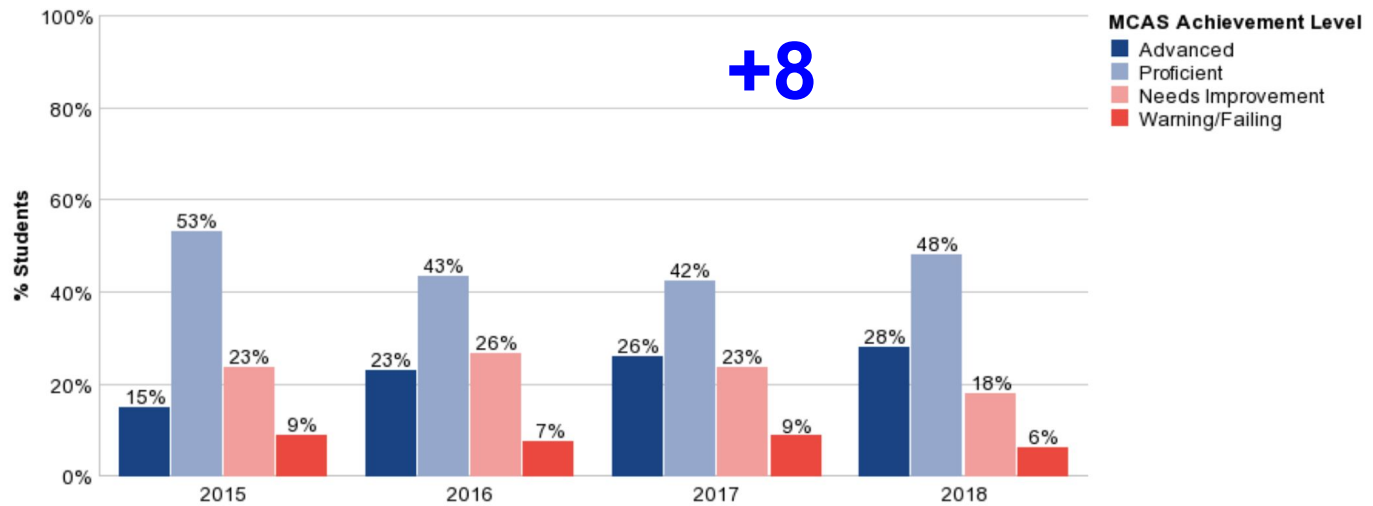
Test	Very Low	Low	Moderate	High	Very High	Median SGP	Mean SGP	N Students (SGP)	% Proficient or Higher	% Meeting or Exceeding Expectations	N Students (Ach. Level)
Spring 2018	19	37	25	40	41		56.9	162		46	180
Spring 2017	52	42	32	26	16	36.5		168		28	179
Spring 2014	51	29	33	35	33	46.0		181	74		199
Spring 2013	49	26	40	32	25	48.0		172	74		189
Spring 2012	28	38	33	29	34	48.5		162	76		174
Spring 2011	40	35	28	35	34	47.5		172	71		189

HIGHLIGHTS: ACHIEVEMENT

HIGH SCHOOL BIOLOGY

* Public School District
 * 2018 * HS Biology * Rockland **Submit**
 * Color Clustered Bar Chart * HS (09, 10) * All Students

Student Group: All Students



	2015		2016		2017		2018	
	District	State	District	State	District	State	District	State
CPI								
Advanced	15%	27%	23%	34%	26%	34%	28%	28%
Proficient	53%	46%	43%	41%	42%	41%	48%	45%
Needs Improvement	23%	19%	26%	17%	23%	18%	18%	19%
Warning/Failing	9%	7%	7%	8%	9%	7%	6%	8%
N Students	149	51,103	136	51,903	175	53,432	129	54,391
Mean SGP								
Median SGP								

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PSAT Testing

	GRADE 10	GRADE 11	Improvement
Class of 2018	ELA & Writing: 473 Math: 458	ELA & Writing: 482 Math: 483	ELA & Writing: +9 Math: +25
Class of 2019	ELA & Writing: 461 Math: 455	ELA & Writing: 487 Math: 480	ELA & Writing: +26 Math: +25
Class of 2020	ELA & Writing: 464 Math: 487	To Be Determined	To Be Determined

- ❑ All grade 10 and 11 students take the PSAT Test during school on the second Wednesday in October. This PSAT test is paid for by the Town of Rockland.
- ❑ **John Ellard III qualified to receive recognition in 2019** National Merit Scholarship Program. John's strong performance on the PSAT test qualified him to enter the 2019 National Merit Scholarship Program. This is a huge accomplishment for John as he is one of the 50,000 highest scoring participants out of the 1.6 million test takers.

SAT Testing

	2015-2016*	2016-2017	2017-2018
# Test Takers	96	159	151
ELA/Writing Score	474	538	542
State Avg ELA/Writing	503	552	550
State Differential	-29	-14	-8
Math Score	504	540	546
State Average Math	522	552	552
State Differential	-18	-12	-6

**In 2016-2017, the format of the SAT test changed. For 2015-2016- the SAT had two separate English Language Arts scores, one for ELA and one for Writing. For the purpose of this analysis, the ELA and Writing scores were averaged for the 2015-2016 school year.*

Advanced Placement Testing

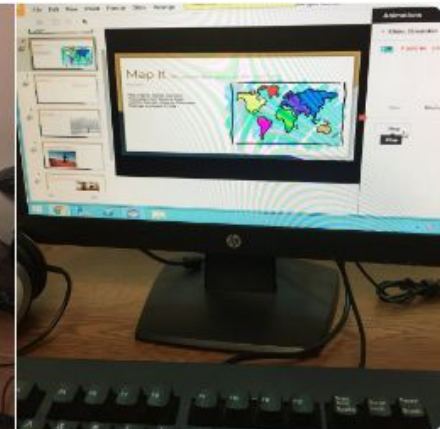
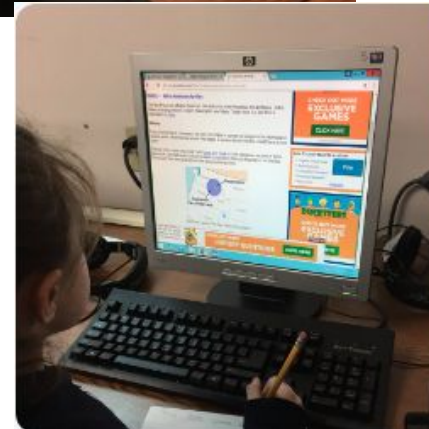
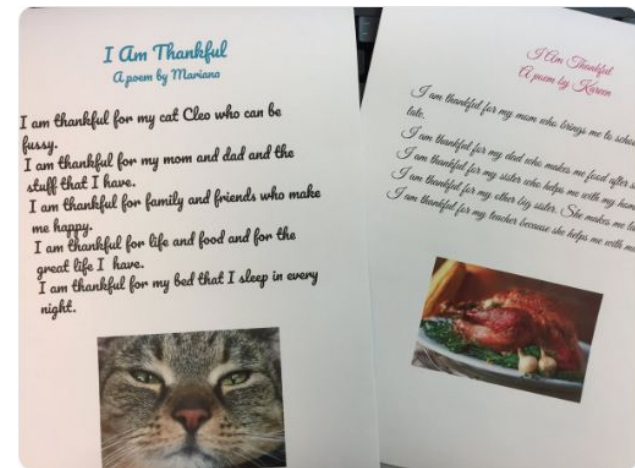
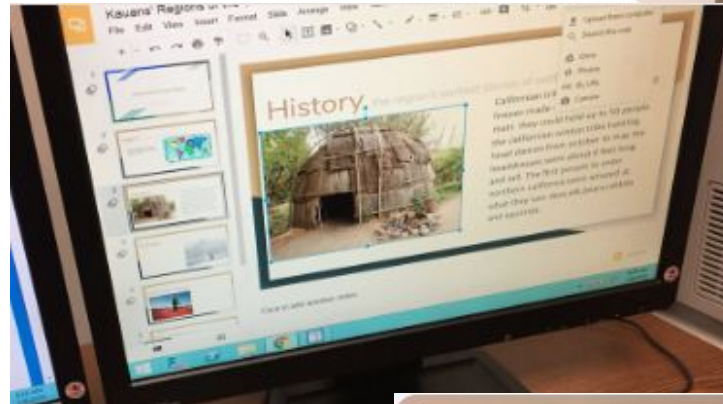
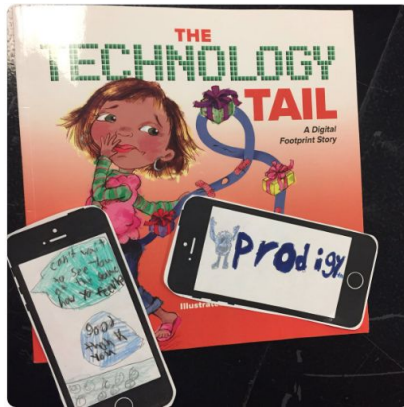
	2009-2010	2015-2016	2016-2017	2017-2018
# of Advanced Placement Courses	6	12	12	12
# of Test Takers	69	135	146	119
# of Tests Administered	129	232	243	206
Passing Rate	46.5%	41.4%	32.5%	46.6%
% of Senior Class that Passed AP Exam	19.3%	21.5%	20.9%	26.5%

RPS: The Evolution of Technology &

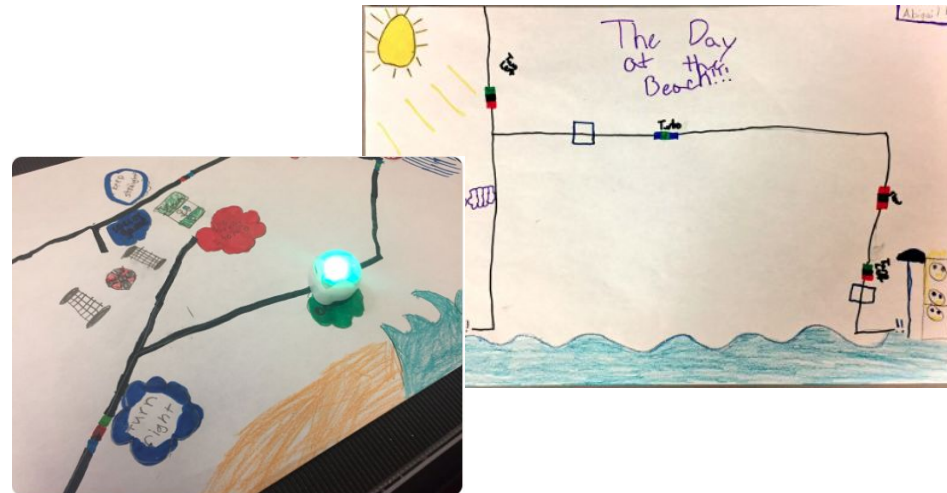
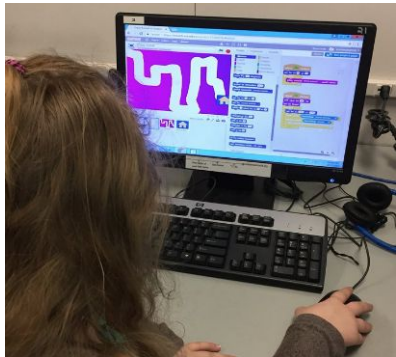


- **2015-16:** Instructional Technology Specialist (ITS) pilots technology class for 375 students in grades 3 and 4. Curriculum includes: Google Docs, Google Slides and coding with Code.org (20 classes). 3rd year of Engineering and Robotics at RHS and 3rd year of coding at RMS
- **2016-17:** ITS continues to pilot technology class for 375 students in grades 3 and 4. Curriculum is **expanded to also include research skills and coding with MIT's Scratch (25 classes)**. 4th year of Engineering and Robotics at RHS and 4th year of coding at RMS
- **2017-18:** One new STEM teacher is hired who works with the ITS to develop a STEM curriculum for 550 students in grades 2, 3 and 4. This full year (40 classes) program **expands to include engineering challenges and robotics**. In addition to Engineering, Robotics and coding at RHS, **Robotics is added at RMS and Computer Science is added at RHS**
- **2018-19:** A second STEM teacher is hired. **The program expands to reach 900 K-4 students with a STEAM program**. This five-year program allows for more creativity and innovation (the A for Arts in STEAM) and includes digital citizenship and more engineering challenges and robotics. Computer Science continues and AP Computer Science is added at RHS

Elementary Curriculum includes Digital Citizenship, Google Docs, Research Skills and Google Slides



Coding, Robotics and Engineering Challenges



Conclusions

- ▶ The improvement in student achievement is district wide and occurring at all grade levels. Of the 25 MCAS exams given last year, 19 showed improvement over the previous year.
- ▶ The improvement in Reading and ELA currently outstrips the improvement in Math. The districts hiring of an elementary math coach is expected to impact student achievement in Math.
- ▶ The significant increase in Science scores at all levels may reflect the significant investment in Science curriculum materials and programs, particularly at the elementary schools and the middle school.
- ▶ This years results are outstanding and at the end of the day can be credited to our incredibly supportive town, our hard-working and talented teaching staff, administration and our great Rockland kids and families!

2018 MCAS Accountability Results Overview

Rockland Public Schools
Rockland, Massachusetts 02370