Lincoln Public Schools
MCAS and Accountability Report
October 2019

Introduction

As a district, we are committed to constructing a suite of varied, holistic, meaningful measures that simultaneously inform teachers' practice as well as allow the district to measure progress toward our goals over the coming years. This fall we finalized an Assessment Philosophy (Appendix 1) through collaborative work between LTA and administration. This document serves to guide the district as we make small and large decisions regarding assessments of and for learning.

We are also in the midst of creating our Profile of a Learner. With a profile in place we will be able to articulate the clear aims we have for students connected to each component of the profile and subsequently name or create the indicators and measures that we think would best show us, students, and families where our students are in relation to those aims. At that point our district will reach a point when our Key Yearly Measures truly measure the breadth of what we value with clear indicators for success. Until then, we still believe it is important for us to seriously examine MCAS and accountability data, acknowledging that this data represents only one narrow part of what we plan to ultimately use as metrics of our impact on student learning and growth.

MCAS (Massachusetts Comprehensive Assessment System)

Last spring was the first next-generation science MCAS and the third year of the new, next-generation test in math and ELA. All facets of the science test were new compared to the legacy assessment including scoring categories, the scoring standards, and the online testing platform.

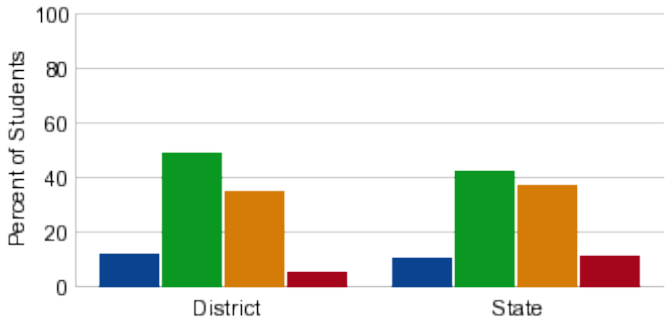
Overall achievement in grades 3-8 across the district

One basic indicator for student achievement on MCAS is the percent of students across the district in grades 3-8 who meet or exceed expectations. In the spring of 2019, 61% of our students in ELA, 59% of our students in math, and 55% of our students in science met or exceeded expectations on MCAS as compared to statewide rates of 49% in ELA, 48% in math, and 47% in science. Of the students who did not meet or exceed expectations in our district the majority partially met expectations.

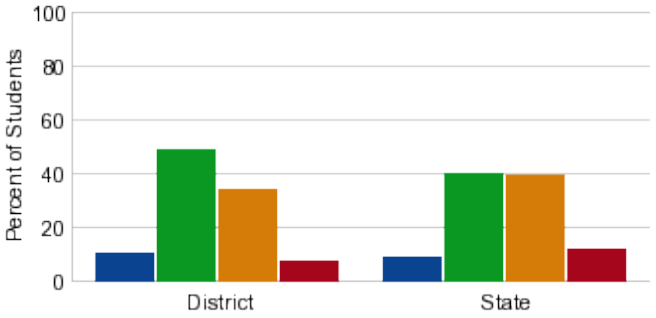
61% ELA
59% MATH
55% SCIENCE
Meeting or Exceeding Expectations
LINCOLN DISTRICT Grades 3-8

52% ELA
49% MATH
47% SCIENCE
Meeting or Exceeding Expectations
STATE-WIDE Grades 3-8

ELA

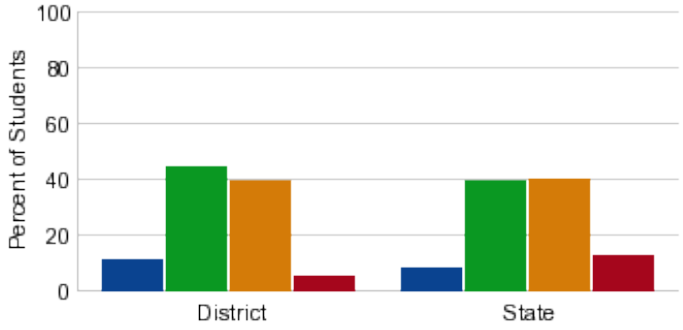


MATH



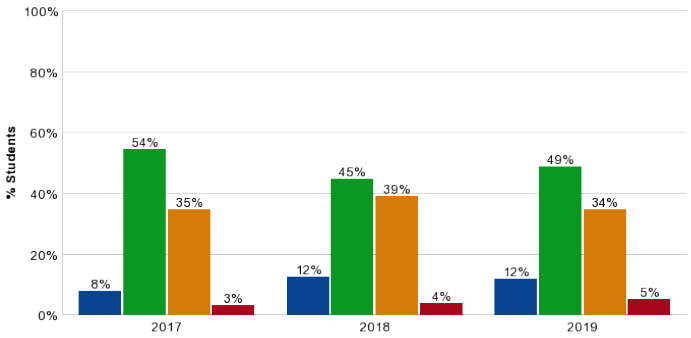
	ELA		Math		Science	
	% LPS	% MA	% LPS	% MA	% LPS	% MA
Exceeding Expectations	12	10	10	9	11	8
Meeting Expectations	49	42	49	40	44	39
Partially Meeting Expectations	34	37	34	39	39	40
Not Meeting Expectations	5	11	7	12	5	12

SCIENCE

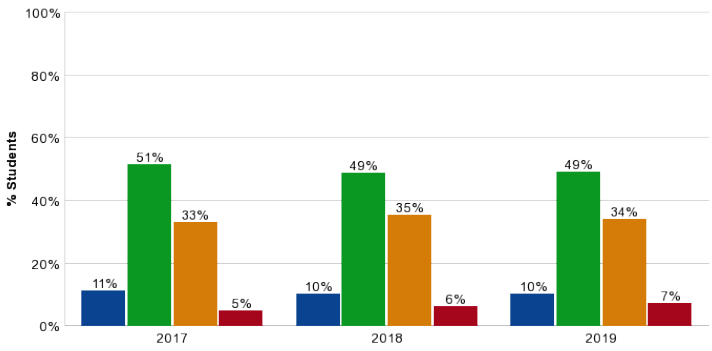


Compared to last year's scores, the state's ELA scores went up 3 points and math increased 1 point. In Lincoln, our students scored 4 percentage points higher in ELA and the same percentage in math compared to last year. Science scores cannot be compared longitudinally since last year was the first next-generation test. The figures below show the last three years of test results in ELA and math. It is worth noting that last year was the first year in a three-year process of implementing the Units of Study as our new literacy curriculum in grades K-5. Teachers implemented two integrated units last year and are adding at least two additional integrated units this year. 2019-20 will be our first year with a full-year scope and sequence for the Units of Study in grades K-5, with a final set of units layering in during 2020-2021.

ELA



MATH



District-wide achievement in 8th grade

The percentage of students meeting or exceeding expectations in 8th grade is a measure of students' academic progress before they move on to Lincoln-Sudbury, Bedford, or another high school program. In 2019, 63% of our 8th grade students met or exceeded expectations on the ELA assessment, 52% met or exceeded expectations in math, and 55% in science. State-wide 51% of 8th grade students met or exceeded expectations in ELA, 47% met or exceeded expectations in math, and 46% met or exceeded in science.

63% ELA
52% MATH
55% SCIENCE
Meeting or Exceeding Expectations, Grade 8

Overall growth in grades 4-8 across the district

Student Growth Percentiles (SGP) are a measure of how students perform on MCAS relative to other students state-wide who performed similarly in prior years. Students are grouped by performance on prior years of MCAS. Students are then given a percentile rank within that group based on their performance on the latest MCAS assessment. Students in grade 3 and new students to the state do not have a SGP because they have not previously taken an MCAS assessment in order to compare growth across years. The state has defined SGPs of 40-60 to indicate Moderate Growth, SGPs below 40 to be Low or Very Low Growth, and SGPs above 60 to be High

53.7 ELA
44.5 MATH
Median SGP, Grades 4-8

or Very High Growth. The median SGP in the state is always 50. This past year, across all grades, the median SGP in the district was 53.7 in ELA and 44.5 in Math.

While performance levels are not directly comparable between next-generation and prior legacy MCAS (due to changes in standards, testing format, and performance levels), growth percentiles are more comparable across the two versions of MCAS. In math and ELA the median SGPs fall within the Moderate Growth category.

Year	ELA SGP	Math SGP
2019*	53.7	44.5
2018*	53.1	50.5
2017*	54	60
2016	62	52
2015	55	47
2014	58	49.5

** Next-Generation MCAS*

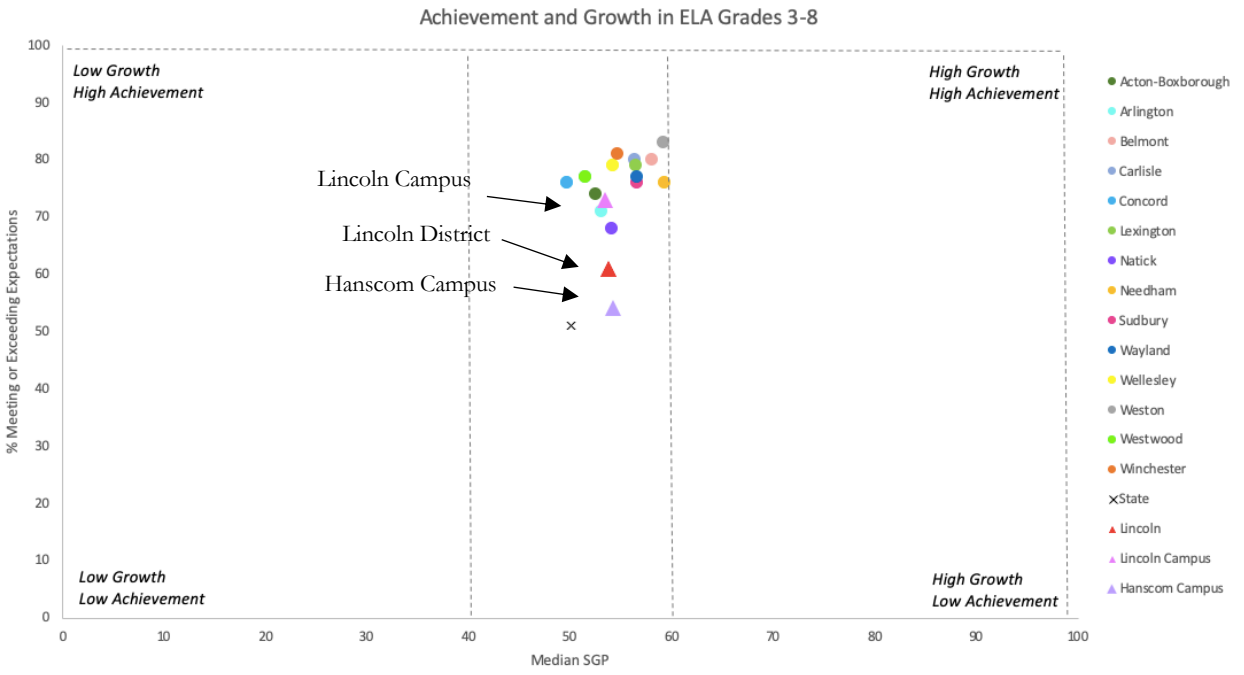
Achievement and growth as compared to other districts

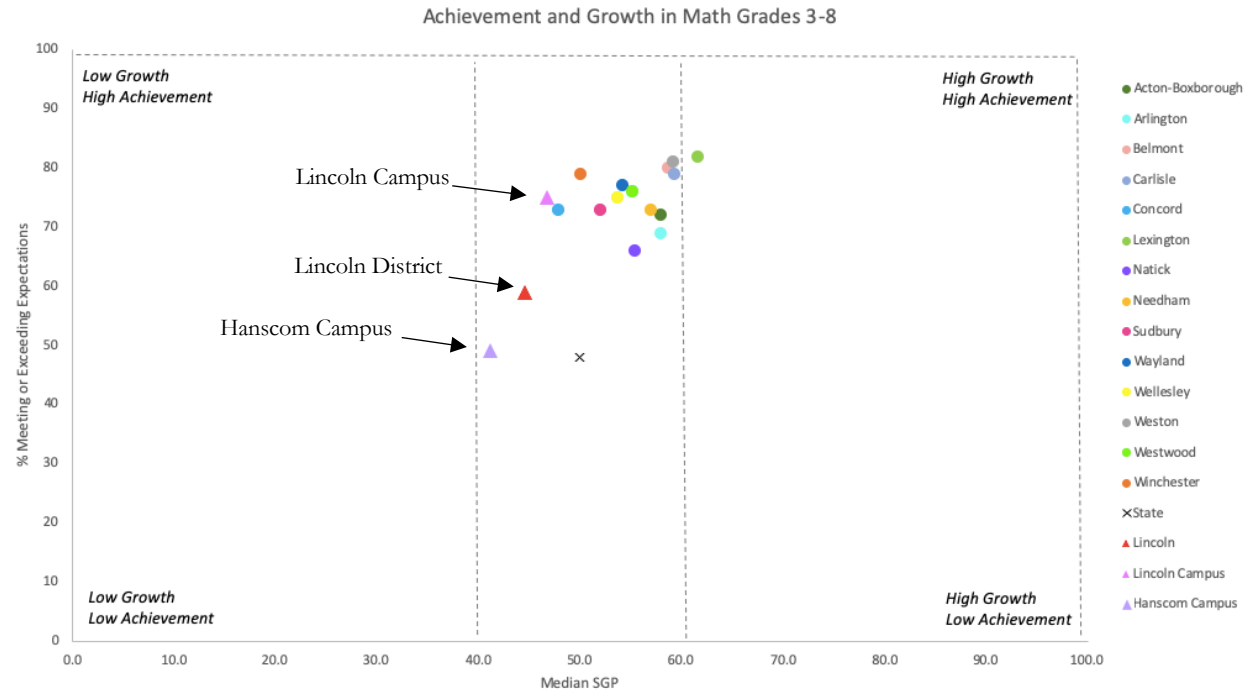
Comparing districts is somewhat challenging; while the districts that we included in this report are ones we consider to be our peers it is important to note that Lincoln is unique among this group. Over half of our students reside on Hanscom Air Force Base. These students frequently arrive throughout the school year, come to us from disparate backgrounds, and rarely stay with us for longer than a few years. The Department of Elementary and Secondary Education (DESE) has not updated its tracking of mobility rates this fall, but last year we reported that Lincoln had the 11th highest churn rate[1] amongst traditional public districts, following cities such as Springfield and Boston. Relatedly, our student population had the fifth lowest stability rate[2] out of traditional public districts, behind Savoy, Boston, Lawrence, and Orange. Serving our students at Hanscom is something our district is proud, committed, and honored to do. We are developing better ways to track the growth of our students so that we can monitor their success in ways that feel appropriate and helpful.

On the following page are two charts that show the median SGP and the percent of students who met or exceeded expectations for fourteen fellow districts. The state is marked by an "x." The three triangles show Lincoln as an overall district as well as the Lincoln campus and the Hanscom campus.

[1] Churn rate measures the number of students transferring into or out of a public school or district throughout the course of a school year.

[2] Stability rate measures how many students attending school on October 1 remain in the school for the entirety of the school year.


Achievement and Growth in ELA Grades 3-8
Low Growth
High Achievement
High Growth
High Achievement
Low Growth
Low Achievement
High Growth
Low Achievement
Lincoln Campus
Lincoln District
Hanscom Campus
% Meeting or Exceeding Expectations
Median SGP
Acton-Boxborough
Arlington
Belmont
Carlisle
Concord
Lexington
Natick
Needham
Sudbury
Wayland
Wellesley
Weston
Westwood
Winchester
State
Lincoln
Lincoln Campus
Hanscom Campus


Achievement and Growth in Math Grades 3-8
Low Growth
High Achievement
High Growth
High Achievement
Low Growth
Low Achievement
High Growth
Low Achievement
Lincoln Campus
Lincoln District
Hanscom Campus
% Meeting or Exceeding Expectations
Median SGP
Acton-Boxborough
Arlington
Belmont
Carlisle
Concord
Lexington
Natick
Needham
Sudbury
Wayland
Wellesley
Weston
Westwood
Winchester
State
Lincoln
Lincoln Campus
Hanscom Campus

Honing in on content strands and topics at the district level: ELA

The chart below shows how the types of items evolve across grades. The percent of selected response items decreases by about 10% from 3rd-8th grade but is always over half the test. Essays start at about one-third of the test and grow each year till they account for nearly half the test.

ELA Test Construction by Question Type

	grade 3		grade 4		grade 5		grade 6		grade 7		grade 8	
Question Type	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*
Constructed Response	3	7%	3	7%	-	-	-	-	-	-	-	-
Essay	14	32%	14	32%	21	44%	24	47%	24	47%	24	47%
Selected Response	27	61%	27	61%	27	56%	27	53%	27	53%	27	53%
All Items	*44*	-	*44*	-	*48*	-	*51*	-	*51*	-	51	-

Our students, like those across the state, perform better on selected response items—meaning multiple choice, multiple select (choose more than one correct answer from several options which can include two-part questions), drag-and-drop, or hot-spot technology enhanced questions—than constructed response items where students had to type their answers, or essays.

In all grades 3-8, the test uses each of the different item types to assess students reading, writing, and language skills. The chart on the following page shows how the content of the test items, regardless of their question type, shifts from grade 3 to grade 8. The reading strand is heavily assessed (even more so in the earliest grades) with a big focus on being able to identify and analyze key ideas and details in texts. Writing increases a bit year to year, eventually accounting for nearly one-third of the test. Conventions of Standard English and Craft and Structure in reading are assessed much more than Vocabulary, or the Integration of Knowledge or Ideas, especially in the upper grades.

While across grades 3-8 Lincoln students were particularly strong with topics within the reading strand including Key Ideas and Details & Craft and Structure, our students' two weakest areas on both campuses and in all grade levels were Conventions of Standard English and Writing; this is also true for students across the state. As an example of what students are asked to do, this past year 8th grade students read two excerpts about an important meeting that happened during the Civil War and then wrote an essay explaining whether Frederick Douglass and Abraham Lincoln were effective leaders. In order to succeed students needed to use information from both excerpts to present and develop a central idea, use evidence and/or details from the passages, and write clearly with sophistication. Another type of writing students are asked to do is to create a narrative based on a passage. For example, fourth graders were asked to read a fictional passage and then write a narrative that told the events from a different character's point of view, using what they gathered from the characters, setting, and events in the passage in order to tell their story. In both of these cases students need to confidently

read texts they are most likely seeing for the first time, sometimes reading more than one text in order to synthesize information, brainstorm and develop ideas they have for how to respond to a specific prompt, and then successfully compose their ideas in a coherent way. Our work in the past year to adopt the Units of Study in grades K-5 should directly support our students' growth in their writing since literacy units are integrated across reading and writing, and students develop their stamina to read and write a significant volume, to set goals in both domains, and to develop their craft and voice as authors. This September DESE announced that they will be eliminating one essay in each grade in the 2020 test.

ELA Test Construction by Strand and Topic

	grade 3		grade 4		grade 5		grade 6		grade 7		grade 8	
Strand / Topic	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*
Language Anchor Standard	**9**	**20%**	**11**	**25%**	**13**	**27%**	**12**	**24%**	**12**	**24%**	**12**	**24%**
Conventions of Standard English	8	18%	6	14%	10	21%	9	18%	9	18%	10	20%
Vocabulary Acquisition and Use	1	2%	5	11%	3	6%	3	6%	3	6%	2	4%
Reading Anchor Standard	**27**	**61%**	**25**	**57%**	**23**	**48%**	**24**	**47%**	**24**	**47%**	**24**	**47%**
Craft and Structure	5	11%	2	5%	7	15%	10	20%	9	18%	9	18%
Integration of Knowledge and Ideas	1	2%	5	11%	4	8%	1	2%	3	6%	2	4%
Key Ideas and Details	21	48%	18	41%	12	25%	13	25%	12	24%	13	25%
Writing Anchor Standard	**8**	**18%**	**8**	**18%**	**12**	**25%**	**15**	**29%**	**15**	**29%**	**15**	**29%**
Text Types and Purposes	8	18%	8	18%	12	25%	15	29%	15	29%	15	29%
All Items	*44*		*44*		*48*		*51*		*51*		*49*	

Honing in on content strands and topics at the district level: Math

Similar to the ELA test, the question types and their emphasis change across grade levels on the math assessment, as seen in the table below. In past years the percentage of selected response items fluctuated from grade to grade and it was unclear to us why it oscillated so much. This year the item type construction seems to have smoothed out more across the grades.

Math Test Construction by Question Type

	grade 3		grade 4		grade 5		grade 6		grade 7		grade 8	
Question Type	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*
Constructed Response	12	25%	16	30%	16	30%	16	30%	16	30%	16	30%
Short Answer	14	29%	11	20%	14	26%	6	11%	14	26%	12	22%
Selected Response	22	46%	27	50%	24	44%	32	59%	24	44%	26	48%
All Items	*48*	-	*54*	-	*54*	-	*54*	-	*54*	-	54	-

Unlike the ELA test, the math test is quite different in grades 3-5 than in 6-8. Geometry is the only strand that is assessed across all grades. The chart on the following page shows that while the strands are somewhat equally weighted in the earlier grades, by the eighth grade, three of the five strands count for 81% of the test.

Our students (and students across the state) performed best on selected response and short answer items and least well with constructed response questions, but not by such large margins as we see with writing in ELA. In the 8th grade the constructed response question (and question overall) that most stumped our students and 8th graders across the entire state is below, where students needed to solve and write their answer independently:

Consider this expression.

$$\frac{3^{-2} \cdot 3^{3}}{3^{-1}}$$

What is the value of the expression?

Our 3rd-5th graders generally did better with Geometry and Operations and Algebraic Thinking and did worse with items assessing Number and Operations in Base Ten; our 6-8th graders generally did better with Ratios and Proportional Relationships and Geometry and struggled with Statistics and

Probability. While these basic trends do exist in our district for math, unlike ELA in which all students in all grade levels across both campuses had similar strengths and areas for growth we notice variability in math performance between grade levels and campuses. This year, math specialists are working differently with teams to facilitate more collaborative planning before each unit and more targeted data analysis after unit assessments to determine how best to provide different students with additional supports or challenge opportunities in class and through Boost Block.

Average Student Performance by Strand

	grade 3		**grade 4**		**grade 5**		**grade 6**		**grade 7**		**grade 8**	
Strand / Topic	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*	*possible points*	*% of test*
Geometry	4	8%	6	11%	6	11%	8	15%	8	15%	16	30%
Measurement and Data	12	25%	10	19%	10	19%	-	-	-	-	-	-
Number and Operations in Base Ten	8	17%	11	20%	17	31%	-	-	-	-	-	-
Number and Operations--Fractions	9	19%	16	30%	13	24%	-	-	-	-	-	-
Operations and Algebraic Thinking	15	31%	11	20%	8	15%	-	-	-	-	-	-
Expressions and Equations	-	-	-	-	-	-	16	30%	14	26%	17	31%
Ratios and Proportional Relationships	-	-	-	-	-	-	11	20%	11	20%	-	-
Statistics and Probability	-	-	-	-	-	-	8	15%	11	20%	6	11%
The Number System	-	-	-	-	-	-	11	20%	10	19%	4	7%
Functions	-	-	-	-	-	-	-	-	-	-	11	20%
All Items	*48*	-	*54*	-	*54*	-	*54*	-	*54*	-	*54*	-

Honing in on content strands and topics at the district level: Science

The new next-generation science test was evenly split across the four domains based on our state standards in 5th and 8th grade. The chart below shows the areas assessed, based on our state standards. In both grades 70% of the possible points on the test came from selected response items and the other 30% of points students could earn came from constructed response items.

	5th		8th	
Domain / Cluster	*Possible Points*	*% of Test*	*Possible Points*	*% of Test*
Earth and Space Sciences	**16**	**30%**	**14**	**26%**
Earth and Human Activity	6	11%	1	2%
Earth's Place in the Universe	2	4%	7	13%
Earth's Systems	8	15%	6	11%
Life Science	**13**	**24%**	**14**	**26%**
Biological Evolution: Unity and Diversity	4	7%	5	9%
Ecosystems: Interactions, Energy, and Dynamics	4	7%	3	6%
From Molecules to Organisms: Structures and Processes	4	7%	4	7%
Heredity: Inheritance and Variation of Traits	1	2%	2	4%
Physical Science	**15**	**28%**	**13**	**24%**
Energy	6	11%	3	6%
Matter and Its Interactions	3	6%	7	13%
Motion and Stability: Forces and Interactions	4	7%	2	4%
Waves and Their Applications in Technologies for Information Transfer	2	4%	1	2%
Technology/Engineering	**10**	**19%**	**13**	**24%**
Engineering Design	8	15%	2	4%
Materials, Tools, and Manufacturing	0	0%	5	9%
Technological Systems	2	4%	6	11%
Science Practices				
Science Practices	35	65%	39	72%

In 5th grade on both campuses our students performed the highest in questions about Life Science and struggled more with Physical Science, but this trend exists for students across the state, as well. In the 8th grade our students performed equally well across all four domains, also mirroring students across the state, who did not have one area over another that stood out as an area of strength or for growth.

LINCOLN – Achievement and Growth by Campus

73% ELA **75% MATH**

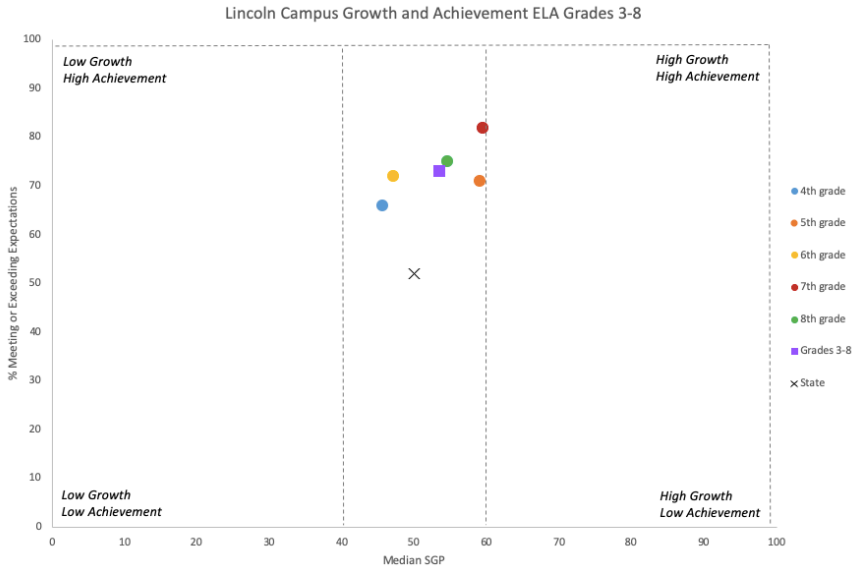
Meeting or Exceeding Expectations
Grades 3-8

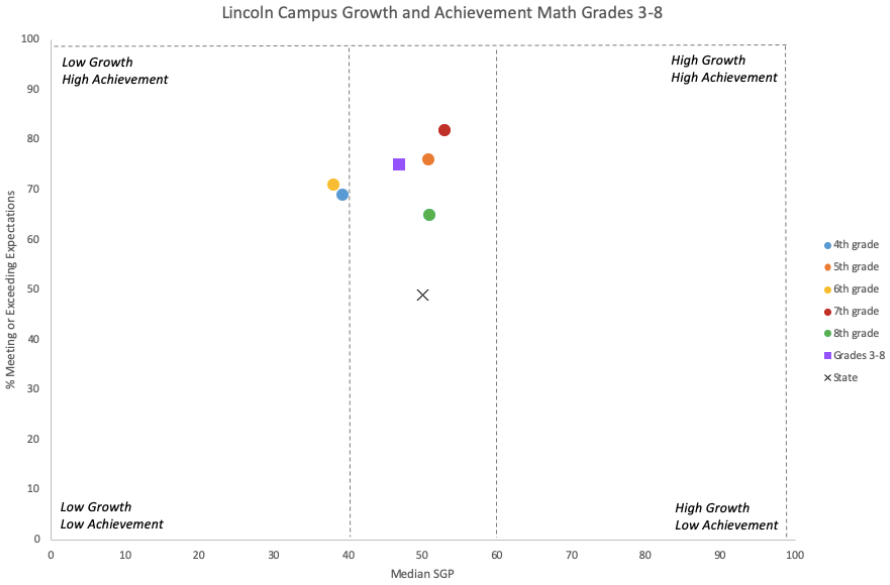
75% ELA **65% MATH**

Meeting or Exceeding Expectations
Grade 8

On the Lincoln campus, nearly three-quarters of students in grades 3-8 met or exceeded expectations.

The median SGP for ELA was 53.4, slightly above the state. The median SGP for math was 46.7, slightly below the state. Both of these SGPs decreased three points from last year's percentiles. One can see a range of growth across grade levels once disaggregated. Last year in ELA and in math different grade levels showed a much wider range of SGPs, spanning from low to high growth. This year in both content areas, growth is significantly more clustered, showing more consistent levels of growth across grades with fewer outliers. It is important to note that when we examine groups of students within a grade-level at a particular campus, the number of students included in the data is smaller, so it can be more variable year to year.





53.4 ELA

46.7 MATH

Median SGP
Lincoln Campus
Grades 4-8

HANSCOM – Achievement and Growth by Campus

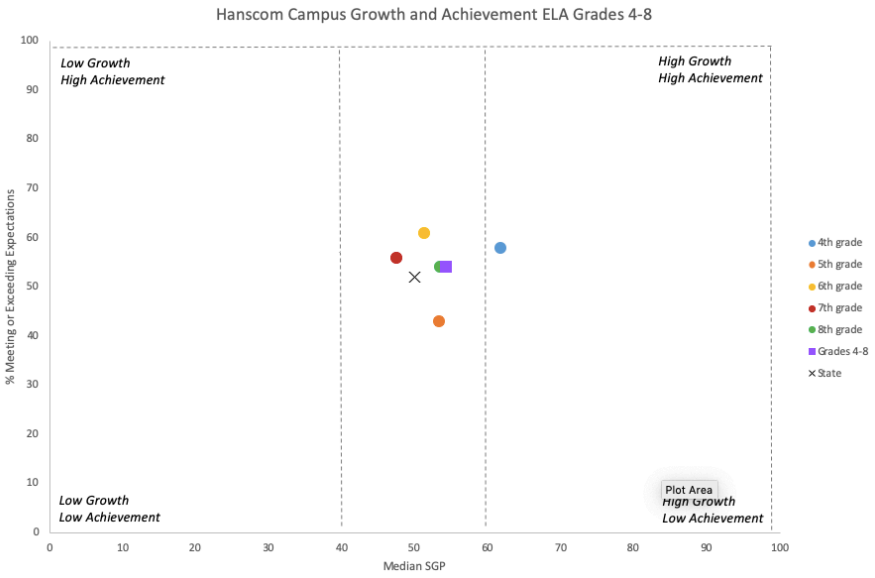
54% ELA 49% MATH

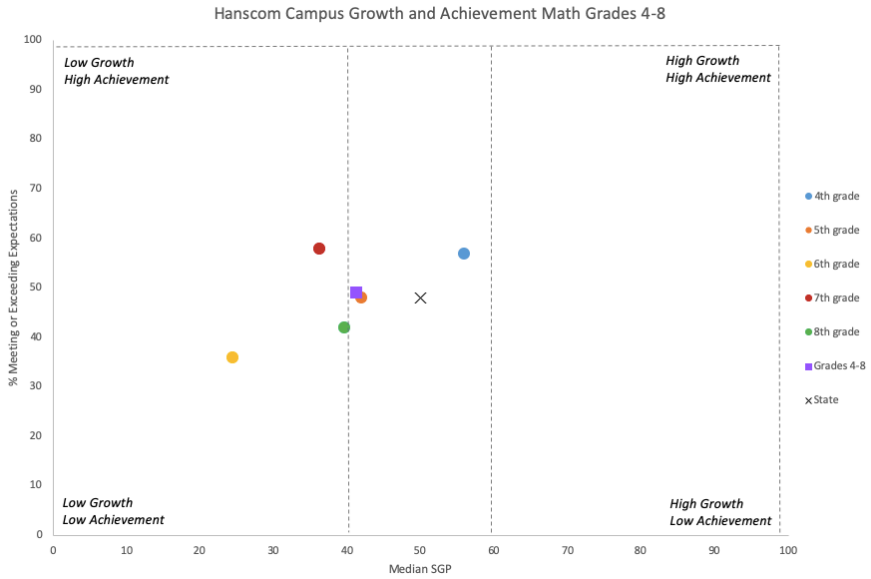
Meeting or Exceeding Expectations
Grades 4-8

54% ELA 42% MATH

Meeting or Exceeding Expectations
Grade 8

On the Hanscom campus, overall achievement levels for grades 4-8 are mostly at or slightly below the state. The majority of grades were considered to have moderate growth with one grade level in ELA within the high growth section. In ELA nearly all grade levels showed higher levels of growth than the prior year. The effect of this was a 6.5 increase in median SGP at HMS. The median SGP in math across all grade levels dropped ten percentile points from 51.6 to 41.2. While the ELA achievement and growth levels are somewhat clustered, math results were varied across grade levels and all grade levels had lower median growth percentiles than in the prior year. It is important to note that when we examine groups of students within a grade-level at a particular campus, the number of students included in the data is smaller, so it can be more variable across years.





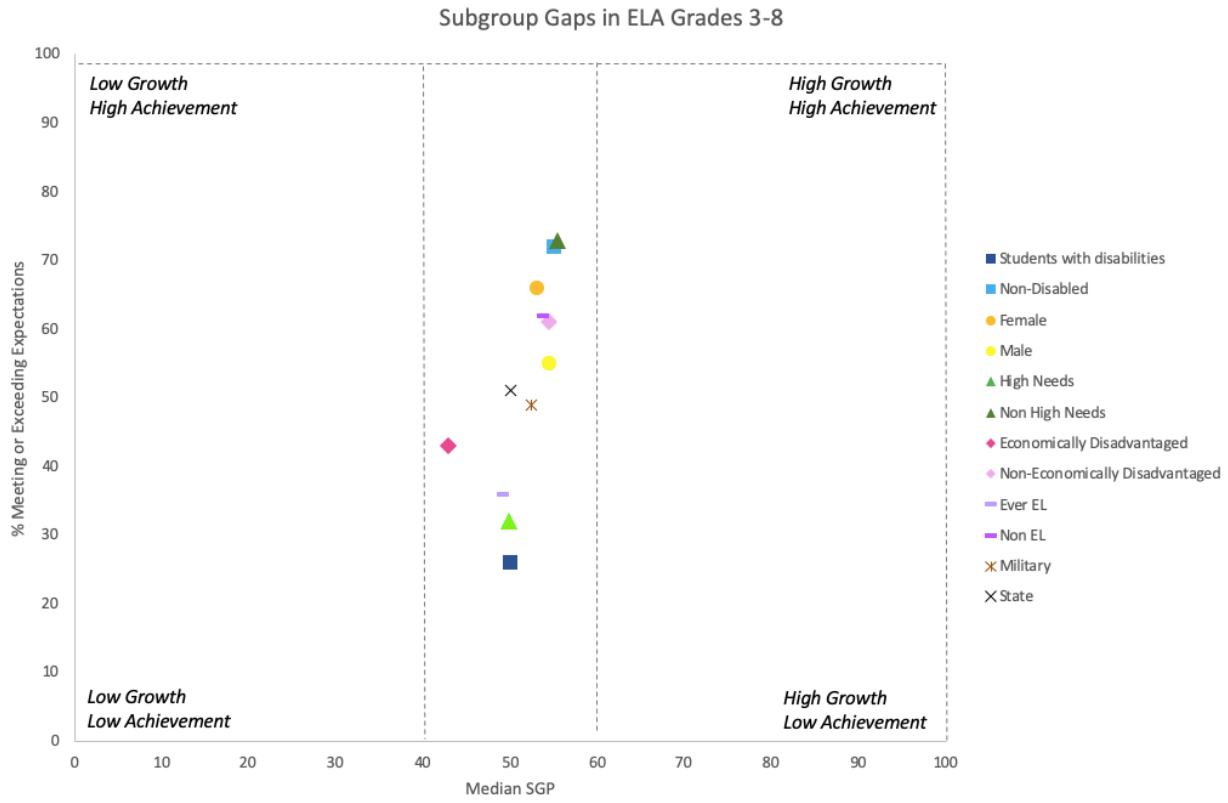
54.2 ELA

41.2 MATH

Median SGP Hanscom Campus Grades 4-8

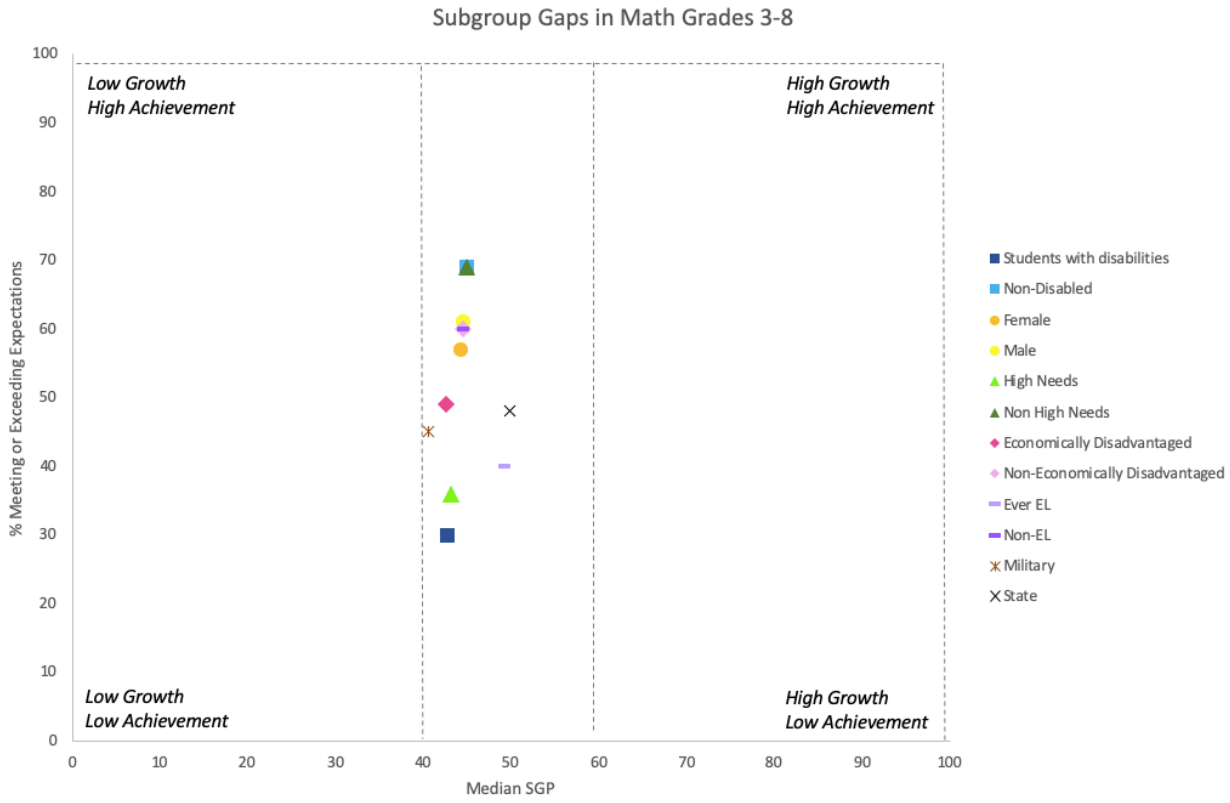
Gaps Between Subgroups Across the District

Lincoln, like many other districts in the area and in the country, has gaps between subgroups of students. The following two charts illustrate five gaps that are present in our data including the differences between: 1) students with disabilities and non-disabled students; 2) female and male students; 3) students with high-needs and those without; 4) economically disadvantaged and non-economically disadvantaged students; and 5) students who have ever been an English Learner (Ever EL) and those who have never been classified as an English Learner (Non EL). The category of "high-needs" is an unduplicated count of all students belonging to at least one of the following individual subgroups: students with disabilities, English Learners and former English Learners, or economically disadvantaged students. In Lincoln, "economically disadvantaged" includes almost entirely students who attend the Lincoln School and nearly no students at Hanscom because the measure is based on a student's participation in one or more of the following state-administered programs: the Supplemental Nutrition Assistance Program (SNAP); the Transitional Assistance for Families with Dependent Children (TAFDC); the Department of Children and Families' (DCF) foster care program; and MassHealth (Medicaid). Students on HAFB generally do not participate in these state-based programs even though some would qualify as economically disadvantaged under prior measures. Lastly, for the first time this year DESE has created a subgroup for military students so we have shown our military student's growth and achievement, as well. Unfortunately, they do not provide a comparative data point with a "non-military" subgroup.



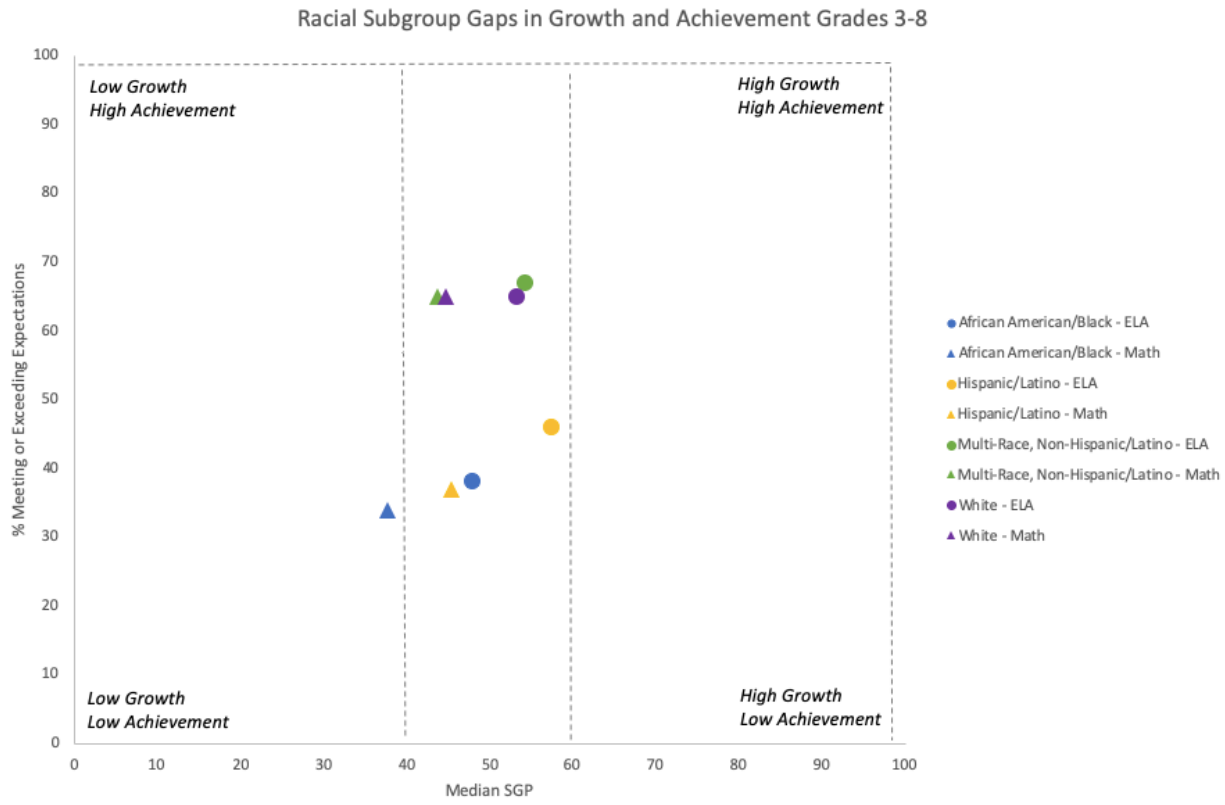
It is interesting to see how relatively similar the growth of the majority of subgroups was, while discouraging to see the large gaps between groups in regard to achievement. Our largest subgroup gap exists between students with and without disabilities, however, many students with disabilities on the Lincoln campus are outperforming other students with disabilities in their grade level across the state,

oftentimes by significant margins. For example, fifth grade students with disabilities on the Lincoln campus performed in the 97th percentile in ELA and the 92nd percentile in math compared to their 5th grade peers with disabilities across the state. This illustrates how complex data from MCAS can be and how careful we should be to examine it from a variety of perspectives before coming to firm conclusions or taking action.



Last year we noticed that in many grade levels our female students outperformed male students in ELA but in math the opposite occurred. We were concerned when it seemed like a small performance gap in math started in the third grade but steadily grew across the grade levels through middle school, particularly at the Lincoln campus. This year, that gap at the district level is smaller and a number of grade levels across Smith and Brooks had female students outperforming male students in math. These trend fluctuations can be challenging to understand but our small cohorts of students impact the variability of our data.

Gaps also exist across race. The percentage of Black and Latino students meeting or exceeding expectations is significantly lower than White and Multi-racial students. Multi-race is a category defined by the state as including students whose parents selected multiple races but who did not identify as Latino. Sizes of certain subgroups including Asian, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander are too small to be reported reliably without identifying individual students per DESE guidelines.



Closing gaps between subgroups is more important than perhaps any other achievement indicator. This past year Latino students demonstrated a considerably higher median SGP than the prior year in ELA, outpacing all racial subgroups for growth in both content areas. Aspects of our programming deserve investigation to see whether there are ways we could better serve our Black and Latino students, including our approach to interventions and our training in culturally relevant teaching practices. The Math, ELA, and Science Content Specialists along with the Data and Learning Systems Administrator and the Assistant Superintendent have conducted deeper dives into data at the standard, item, and student level to create "Quick Guides" tailored to grade level teams at each campus and to support teachers in the current school year.

Accountability

Last year DESE introduced a new district and school accountability system. The goal of the system is to illustrate how students in Massachusetts are being served by their schools across a variety of factors. However, as a small PK-8 district, there are a number of criteria that are not applicable to us or that we are too small to include, and so the only factors that go into our accountability ratings are MCAS achievement, MCAS growth, and chronic student absenteeism rates. For each of these criteria we are awarded points based on targets that the state will release at some point in the year (last year we were told the targets retroactively after scores were given but this year we hope to get them sometime mid-year). We earn points for each indicator based on data for all students and then again for our lowest performing quartile of students. These points are weighted equally before forming our criterion-referenced target percentage. Then, scores from last year and this year are combined with more weight being assigned to the most recent school year. This forms our cumulative criterion-referenced target percentage which determines our ultimate progress toward target improvements and our overall classification. The district as well as each school was classified as "not requiring assistance or intervention" this year. The district and HMS made moderate progress toward targets and the Lincoln School K-8 made substantial progress toward targets, performing in the 82nd percentile when compared to similar non-high schools.

At-A-Glance:

District/School	Overall Classification	Reason for classification / progress toward improvement targets	Cumulative criterion-referenced target percentage	Accountability percentile
District	Not requiring assistance or intervention	Moderate progress toward targets	42%	N/A
Lincoln School K-8	Not requiring assistance or intervention	Substantial progress toward targets	58%	82
Hanscom Middle School	Not requiring assistance or intervention	Moderate progress toward targets	32%	43
Hanscom Primary School	Not requiring assistance or intervention	Limited or no progress toward targets	22%	N/A

On the following pages are the data for each indicator that is counted to determine the criterion-referenced target percentages for the district as a whole as well as for each school. DESE also provides targets and data for a variety of subgroups. This data does not primarily determine a district or school's accountability level but in some cases if subgroup data targets are not being met they can alter one's overall classification. While we are not providing detailed subgroup data in this report, all of this data is publicly available through DESE's website where they post school and district profiles.

District: Lincoln Public Schools

	2018	2019
Annual criterion-referenced target percentage	41%	42%
Weight	40%	60%
Cumulative criterion-referenced target percentage (2018 x 40%) + (2019 x 60%)	42%	
	Moderate progress toward targets	

2019 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	3	4	-	2	4	-
	Mathematics achievement	0	4	-	2	4	-
	Science achievement	1	4	-	-	-	-
	Achievement total	**4**	**12**	**67.5**	**4**	**8**	**67.5**
Growth	English language arts growth	3	4	-	2	4	-
	Mathematics growth	2	4	-	2	4	-
	Growth total	**5**	**8**	**22.5**	**4**	**8**	**22.5**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	0	4	-	0	4	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**0**	**4**	**10.0**	**0**	**4**	**10.0**
Weighted total		3.8	10.3	-	3.6	7.6	-
Percentage of possible points		37%		-	47%		-
Criterion-referenced target percentage		**42%**					

2018 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	2	4	-	2	4	-
	Mathematics achievement	0	4	-	2	4	-
	Science achievement	0	4	-	-	-	-
	Achievement total	**2**	**12**	**67.5**	**4**	**8**	**67.5**
Growth	English language arts growth	3	4	-	2	4	-
	Mathematics growth	3	4	-	3	4	-
	Growth total	**6**	**8**	**22.5**	**5**	**8**	**22.5**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	1	4	-	4	4	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**1**	**4**	**10.0**	**4**	**4**	**10.0**
Weighted total		2.8	10.3	-	4.2	7.6	-
Percentage of possible points		27%		-	55%		-
Criterion-referenced target percentage		**41%**					

School: Lincoln K-8

	2018	2019
Annual criterion-referenced target percentage	67%	52%
Weight	40%	60%
Cumulative criterion-referenced target percentage (2018 x 40%) + (2019 x 60%)	58%	
	Substantial progress toward targets	

2019 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	3	4	-	2	4	-
	Mathematics achievement	3	4	-	2	4	-
	Science achievement	0	4	-	-	-	-
	Achievement total	**6**	**12**	**67.5**	**4**	**8**	**67.5**
Growth	English language arts growth	3	4	-	2	4	-
	Mathematics growth	2	4	-	2	4	-
	Growth total	**5**	**8**	**22.5**	**4**	**8**	**22.5**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	4	4	-	1	4	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**4**	**4**	**10.0**	**1**	**4**	**10.0**
Weighted total		5.6	10.3	-	3.7	7.6	-
Percentage of possible points		54%		-	49%		-
Criterion-referenced target percentage		**52%**					

2018 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	4	4	-	2	4	-
	Mathematics achievement	4	4	-	2	4	-
	Science achievement	3	4	-	-	-	-
	Achievement total	**11**	**12**	**67.5**	**4**	**8**	**67.5**
Growth	English language arts growth	3	4	-	2	4	-
	Mathematics growth	2	4	-	2	4	-
	Growth total	**5**	**8**	**22.5**	**4**	**8**	**22.5**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	1	4	-	2	4	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**1**	**4**	**10.0**	**2**	**4**	**10.0**
Weighted total		8.7	10.3	-	3.8	7.6	-
Percentage of possible points		84%		-	50%		-
Criterion-referenced target percentage		**67%**					

School: Hanscom Middle School

	2018	2019
Annual criterion-referenced target percentage	13%	45%
Weight	40%	60%
Cumulative criterion-referenced target percentage (2018 x 40%) + (2019 x 60%)	32%	
	Moderate progress toward targets	

2019 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	4	4	-	2	4	-
	Mathematics achievement	1	4	-	0	4	-
	Science achievement	3	4	-	-	-	-
	Achievement total	**8**	**12**	**67.5**	**2**	**8**	**67.5**
Growth	English language arts growth	3	4	-	2	4	-
	Mathematics growth	2	4	-	1	4	-
	Growth total	**5**	**8**	**22.5**	**3**	**8**	**22.5**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	0	4	-	0	4	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**0**	**4**	**10.0**	**0**	**4**	**10.0**
Weighted total		6.5	10.3	-	2.0	7.6	-
Percentage of possible points		63%		-	26%		-
Criterion-referenced target percentage		**45%**					

2018 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	0	4	-	0	4	-
	Mathematics achievement	0	4	-	0	4	-
	Science achievement	0	4	-	-	-	-
	Achievement total	**0**	**12**	**67.5**	**0**	**8**	**67.5**
Growth	English language arts growth	2	4	-	2	4	-
	Mathematics growth	3	4	-	2	4	-
	Growth total	**5**	**8**	**22.5**	**4**	**8**	**22.5**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	3	4	-	0	4	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**3**	**4**	**10.0**	**0**	**4**	**10.0**
Weighted total		1.4	10.3	-	0.9	7.6	-
Percentage of possible points		14%		-	12%		-
Criterion-referenced target percentage		**13%**					

School: Hanscom Primary School

	2018	2019
Annual criterion-referenced target percentage	1%	36%
Weight	40%	60%
Cumulative criterion-referenced target percentage (2018 x 40%) + (2019 x 60%)	22%	
	Moderate progress toward targets	

2019 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	3	4	-	-	-	-
	Mathematics achievement	0	4	-	-	-	-
	Science achievement	-	-	-	-	-	-
	Achievement total	**3**	**8**	**90.0**	**-**	**-**	**-**
Growth	English language arts growth	-	-	-	-	-	-
	Mathematics growth	-	-	-	-	-	-
	Growth total	**-**	**-**	**-**	**-**	**-**	**-**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	0	4	-	-	-	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**0**	**4**	**10.0**	**-**	**-**	**-**
Weighted total		2.7	7.6	-	-	-	-
Percentage of possible points		36%		-	-		-
Criterion-referenced target percentage		**36%**					

2018 Progress toward improvement targets

Indicator		All students (Non-high school grades)			Lowest performing students (Non-high school grades)		
		Points earned	Total possible points	Weight %	Points earned	Total possible points	Weight %
Achievement	English language arts achievement	0	4	-	-	-	-
	Mathematics achievement	0	4	-	-	-	-
	Science achievement	-	-	-	-	-	-
	Achievement total	**0**	**8**	**90.0**	**-**	**-**	**-**
Growth	English language arts growth	-	-	-	-	-	-
	Mathematics growth	-	-	-	-	-	-
	Growth total	**-**	**-**	**-**	**-**	**-**	**-**
High school completion	Four-year cohort graduation rate	-	-	-	-	-	-
	Extended engagement rate	-	-	-	-	-	-
	Annual dropout rate	-	-	-	-	-	-
	High school completion total	**-**	**-**	**-**	**-**	**-**	**-**
Progress toward attaining English language proficiency	**English language proficiency total**	**-**	**-**	**-**	**-**	**-**	**-**
Additional indicators	Chronic absenteeism	1	4	-	-	-	-
	Advanced coursework completion	-	-	-	-	-	-
	Additional indicators total	**1**	**4**	**10.0**	**-**	**-**	**-**
Weighted total		0.1	7.6	-	-	-	-
Percentage of possible points		1%		-	-		-
Criterion-referenced target percentage		**1%**					

Appendix 1

June 3, 2019

Assessment in Lincoln Public Schools

Defining Assessment

Assessment encompasses a wide range of practices that educators use to see, document, understand, measure, and/or evaluate their students' preparedness for new learning, their progress and growth on skills and content knowledge acquisition, or their needs as learners. A secondary purpose of assessments is to help us evaluate our programs and practices and gauge their effectiveness.

Assessment is an umbrella under which falls many different kinds of student tasks that give information to teachers, as seen by the chart on the right. Tests might be assessments but not all assessments are tests.

Assessment Examples	
Do-nows	Exit tickets
Classwork	Multiple choice or open response; one question/item or many questions/items
Homework	
Quizzes, tests	
Science labs	Formative note-taking
Projects	Made by teachers or purchased from a company
Writing	
Presentations	Formative, baseline/benchmark, or summative
Performances	
Portfolio reviews	Diagnostic
Exhibitions	State assessments (MCAS)
Interviews	And many others…

Purposes of Assessment

In general, assessment can be described as having a formative, baseline/benchmark, or summative purpose. The table below defines each purpose and notes when and why an educator would utilize it.

Purpose of assessment	Description	Examples	Timing	Frequency
Formative *Measurement* ***FOR*** *Learning*	Assessment carried out during the instructional process for the purpose of "near-immediate" improvement of teaching and learning. It is more a *process* than a *thing*. Typically, not for grading.	Exit tickets, mid-unit assignments, in-class questions, student feedback, diagnostic questions or assessments, screeners	Part of learning	Daily
Baseline / benchmark *Measurement* ***OF and FOR*** *Learning*	Assessments administered during instruction that are designed to evaluate students' knowledge and skills relative to a specific set of goals to inform decisions in the classroom and beyond.	Mid-unit assessments, assessments to measure effectiveness of interventions, progress monitoring	A pause in learning	Varies
Summative *Measurement* ***OF*** *Learning*	Formal assessments that are given at the end of a unit, term, course, or academic year.	End of unit/year assessments, portfolio reviews, performances	At the end of learning	Infrequently

Documenting and Analyzing Data of Student Learning

In some cases, assessments give us information that informs our practice, but do not need to be formally tracked or documented. In other cases, particularly when we need to understand students' growth over time, progress towards specific goals, or response to interventions, documenting and tracking assessment data can strengthen our professional judgement. Efficient systems for documenting and tracking assessment data enable effective use of assessment data over time.

Analyzing data is both a skill and a practice that helps us gain deeper insight into students' learning. Professional development, effective tools, and automated processes can help us analyze data more effectively and efficiently.

Common Assessments

The basic purpose of assessment is for teachers and students to understand, document, and foster students' learning. When a grade level, school, or entire district uses common summative or baseline/benchmark assessments it can simultaneously accomplish multiple important goals, including: assessing the effectiveness of and identifying potential gaps in programs, professional development, and curriculum; identifying how students of different backgrounds or subgroups experience learning; providing evidence to support planning and budgetary decisions; and providing a context for an individual student's performance and growth as compared to their peers and developmental benchmarks. In addition, common assessments provide opportunities for conversation amongst colleagues about teacher practice.

Philosophy of Assessment

As we work to develop a balanced approach to assessment, the Lincoln Public Schools grounds our decision-making on the following values:

- Assessments should provide valuable information to students and teachers.
- Varied formative, baseline/benchmark, and summative assessments should work in concert to create a comprehensive assessment system. As much as possible, teachers should use common baseline/benchmark and summative assessments.
- Assessments should be free of cultural bias and accessible to all students.
- We use the data from assessments to inform decisions about instruction, supports, extensions, and interventions.
- We track data of student learning over time, looking for trends, and analyzing gaps by subgroups.
- We acknowledge that assessment, teaching, curriculum, and planning are intertwined and that review and modification of the district's assessments will be an essential facet of every curriculum review cycle.
- We use data from assessments to evaluate the effectiveness of our curriculum and programs.
- Decisions about the vast majority of assessments, in particular formative assessments, are best made by teams of teachers. School- and district-required assessments should be limited to the common assessments and diagnostic tools that are essential for all students or to successfully carry out district programs. When assessment data is managed at a school or district level, a high priority will be placed on providing information to faculty in a timely fashion.
- We commit to a balanced approach to assessment that weighs benefits with costs including student/faculty time and budget.
- A subset of summative assessments will be included in the district's Key Yearly Measures Report to the School Committee to help provide a balanced picture of our students' learning beyond state-mandated measures such as MCAS.