

Hingham Public Schools

# MCAS 22 Assessment



Presented by

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# Essential Questions

- How did HPS students, including subgroups, perform on MCAS in the spring of 2022?
- How does 2022 MCAS data compare to pre-pandemic achievement levels?
- What are the next steps to support the acceleration of student learning?



# MCAS Test Administration 2019-2022

2022 school year was the first full MCAS administration for grades 3-8 since 2019. Grade 10 students in 2022 had not taken an MCAS test since 2019 (grade 7).

Year	Grades 3-8	Grade 10
2019	Full test administration	Full test administration
2020	<b>No tests administered</b>	<b>No tests administered</b>
2021	<b>Half-test administered</b>	Full test administered
*2022	Full test administered	Full test administered

\*2022 is new the baseline for analysis moving forward.



## Placing HPS Data in Context of State-Wide Trends

- Statewide there were some signs of learning loss recovery, but progress was uneven across grade levels, subject areas, and sub-groups.
- On average, statewide data yielded the following results:
  - Math scores increased
  - ELA scores declined
  - Science scores increased slightly
- Statewide ELA results indicate the impact of lower writing scores and early literacy challenges.
- Student absenteeism remains a challenge across the state for recovery efforts.



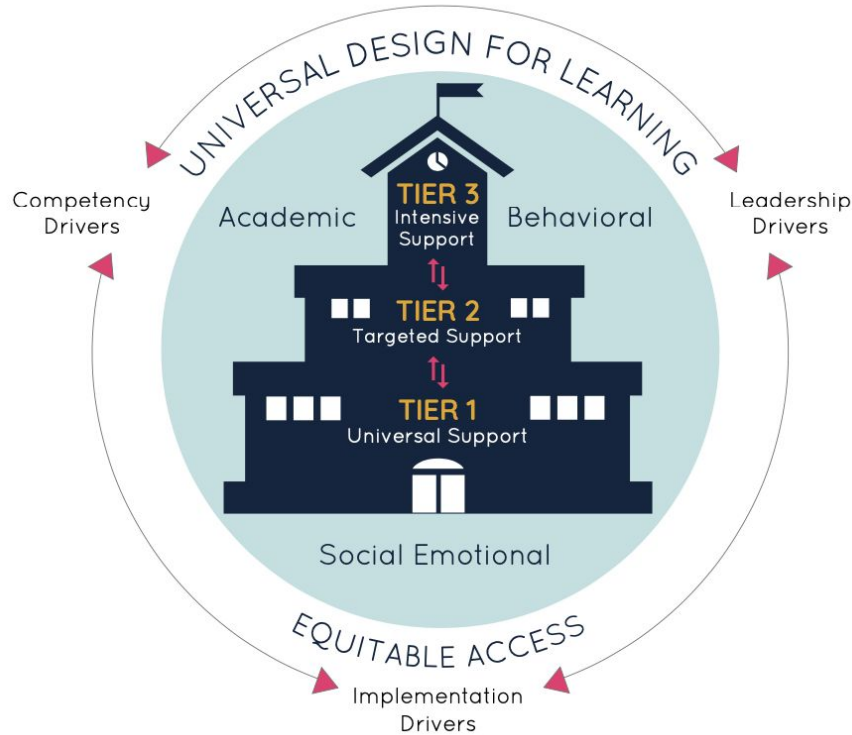


## Key Takeaways of HPS MCAS Data

- HPS data points to areas for targeted focus but the pandemic losses were mitigated overall relative to state.
- Exit outcomes in Grade 10 are strong for HPS students across content areas.
- Pandemic impacted HPS grade levels and cohorts unevenly.
- Continued attention to improving achievement outcomes for sub groups:
  - Students with disabilities (SWD)
  - High needs (HN)
- iReady and literacy data presentation in December will provide more current data and insight into BOY trends and learning acceleration.



# District Initiatives to Accelerate Learning



MULTI-TIERED  
SYSTEM OF SUPPORT

## Multi-Tiered Systems of Support (MTSS)

- Universally Designed Math Instruction
- iReady myPath
- K-5 Reading Program Pilots
- HMS Math Program Pilots
- Open Sci Ed
- Inclusive Practices Academy (UDL)
- S3 Student Supports Academy
- Culturally Responsive Practices Academy

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# MCAS 22 Assessment

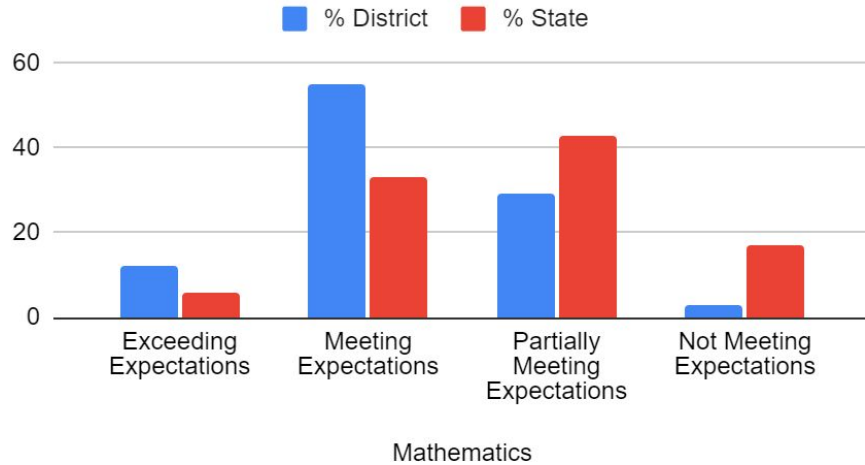


## Mathematics

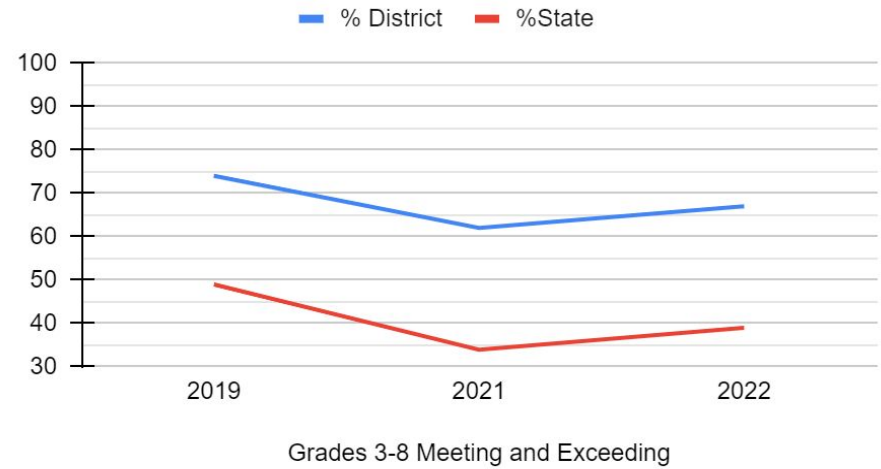


# MCAS 2022 Math State Context Gr. 3-8

## Grade 3 - 8 Mathematics



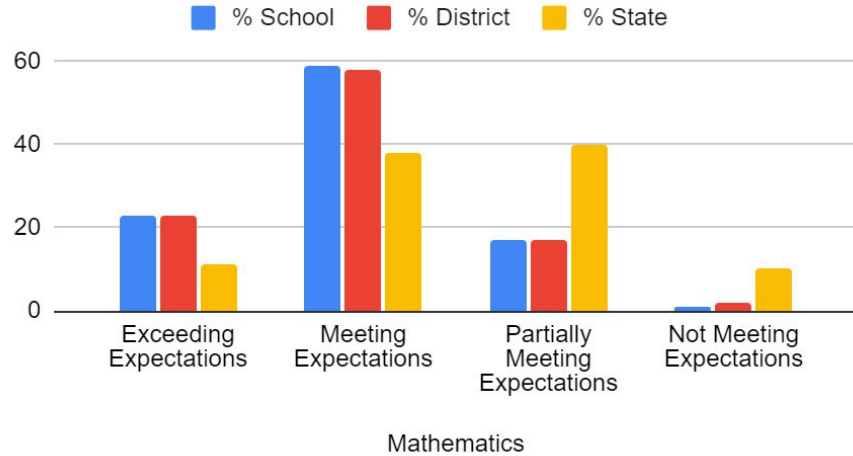
## Grades 3-8 Math 2019-2022



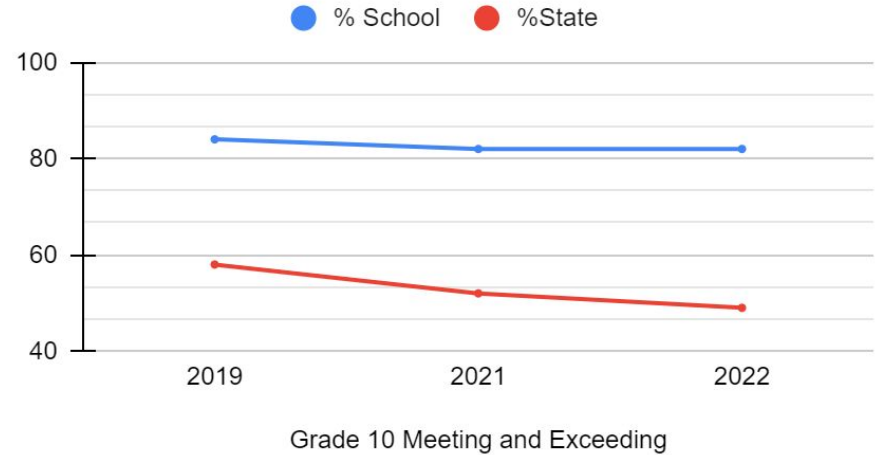


# MCAS 2022 Math State Context Gr. 10

## Grade 10 Mathematics



## Grade 10 Math MCAS 2019 - 2022





# MCAS 2022 Math All Students

	Meeting/ Exceeding		Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations
	District	State				
Grade 3	65%	41%	11%	54%	31%	4%
Grade 4	76%	43%	14%	63%	22%	1%
Grade 5	71%	36%	12%	59%	26%	3%
Grade 6	76%	42%	16%	60%	22%	2%
Grade 7	63%	38%	13%	50%	35%	2%
Grade 8	54%	36%	9%	45%	41%	6%
Grade 10	82%	49%	23%	59%	17%	1%



# MCAS 2022 Math Students with Disabilities

	Meeting/ Exceeding		Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations
	District	State				
Grade 3	39%	15%	4%	35%	48%	13%
Grade 4	43%	15%	0%	43%	51%	6%
Grade 5	33%	11%	1%	32%	55%	12%
Grade 6	34%	12%	6%	28%	54%	12%
Grade 7	22%	10%	2%	20%	66%	11%
Grade 8	19%	8%	5%	14%	49%	33%
Grade 10	33%	15%	0%	33%	57%	10%



# MCAS 2022 Math High Needs

	Meeting/ Exceeding		Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations
	District	State				
Grade 3	42%	26%	5%	37%	45%	12%
Grade 4	51%	26%	0%	51%	45%	5%
Grade 5	37%	19%	1%	36%	52%	11%
Grade 6	43%	24%	7%	36%	46%	10%
Grade 7	29%	20%	5%	24%	64%	8%
Grade 8	26%	19%	6%	20%	48%	26%
Grade 10	54%	29%	12%	42%	40%	7%





# 2019-2022 Math Results by Grade All Students

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
03	71%	N/A	57%	65%
04	74%	N/A	66%	76%
05	78%	N/A	67%	71%
06	85%	N/A	64%	76%
07	75%	N/A	60%	63%
08	64%	N/A	56%	54%
3-8	74%	N/A	62%	67%
10	84%	N/A	82%	82%



# 2019-2022 Math Results by Grade SWD

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
03	31%	N/A	25%	39%
04	32%	N/A	39%	43%
05	40%	N/A	35%	33%
06	36%	N/A	28%	34%
07	24%	N/A	25%	22%
08	18%	N/A	6%	19%
3-8	30%	N/A	27%	32%
10	21%	N/A	15%	33%



# 2019-2022 Math Results by Grade High Needs

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
03	38%	N/A	31%	42%
04	38%	N/A	37%	51%
05	45%	N/A	37%	37%
06	54%	N/A	29%	43%
07	43%	N/A	28%	29%
08	31%	N/A	17%	26%
3-8	41%	N/A	30%	38%
10	39%	N/A	29%	54%



# Math Conclusions

- Overall, approximately  $\frac{3}{4}$  of all students in all grades are meeting or exceeding expectations.
- Overall, the grade 7 and 8 MCAS scores were better than the state but not to the same degree seen in grade 6 and grade 10. This holds true for students with disabilities and high needs populations as well.
- Specific curriculum decisions made in response to the pandemic caused students to score lower in geometry standards in grade 8.
- Grade 3 scores were lower than typical performance but were in keeping with state trends for grade 3.
- Our most vulnerable populations of students showed growth and/or high performance at a rate higher than the state. However, focus on our students with disabilities and high needs is needed.



# Elementary Math Next Steps

- Review specific questions with staff to address any areas of need.
- Provide support to all learners through the MTSS Tiered Instruction and Interventions.
- Renewed focus on Math Workshop Model for math instruction for elementary classroom teachers (includes year-long professional development).
- Use iReady Diagnostic Assessments and the MyPath Digital Learning Tool to provide opportunities for intervention, grade level work, and extension.
- Shift Elementary Math Specialist roles back toward math coaching model (started in 2019) to support best practices for elementary math instruction.
- Provide professional development for Elementary Math Interventionists and Specialists in Early Numerical Reasoning and Fractional Understanding. The professional development will help support specific areas of need identified in the data.



# Secondary Math Next Steps

## All Secondary

- Review specific questions with staff to address any areas of weakness
- Provide professional development on Mathematical Practices with a focus on perseverance and growth mindset.

## Middle School

- Implement new grade 8 curriculum.
  - Grade 8 Math 8 with Algebra course is in second year of pilot of DESMOS curriculum.
  - Math 8 course is in first year of piloting the DESMOS curriculum.
- Propose to combine *Math 8* and *Math 8 with Algebra* classes moving forward.
- Provide specific targeted MCAS review of transformations for grade 8 students taking Algebra 1.
- Pilot new curriculum materials for Math 7 classes.
- Refining our approach to MTSS at HMS.

## High School

- Continue to provide after school Algebra 1 Support Class for current Algebra 1 students.
- Continue to provide after school MCAS Support Class for current sophomores.
- Continue to provide tutoring for students who did not initially pass the grade 10 MCAS.
- Continue to use ALEKS in Algebra 1 to provide individualized instruction opportunities.

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# MCAS 22 Assessment

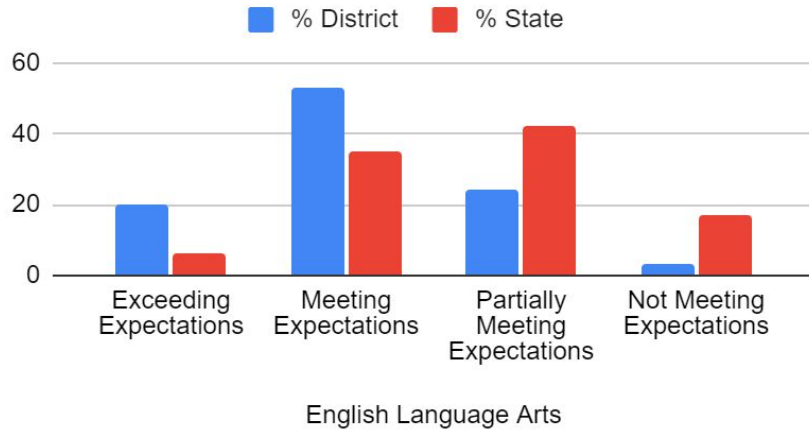


## English Language Arts

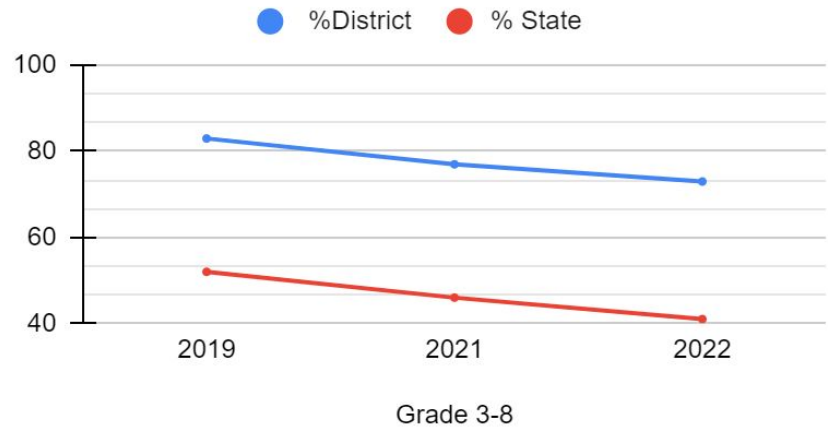


# MCAS 2022 ELA State Context Gr. 3-8

## Grade 3-8 - ELA



## Grade 3-8 ELA MCAS 2019-22



% Meeting/Exceeding Expectations

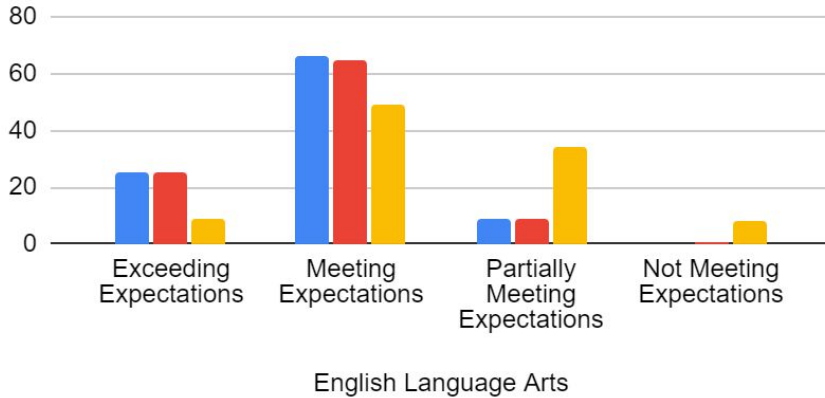




# MCAS 2022 ELA State Context Gr. 10

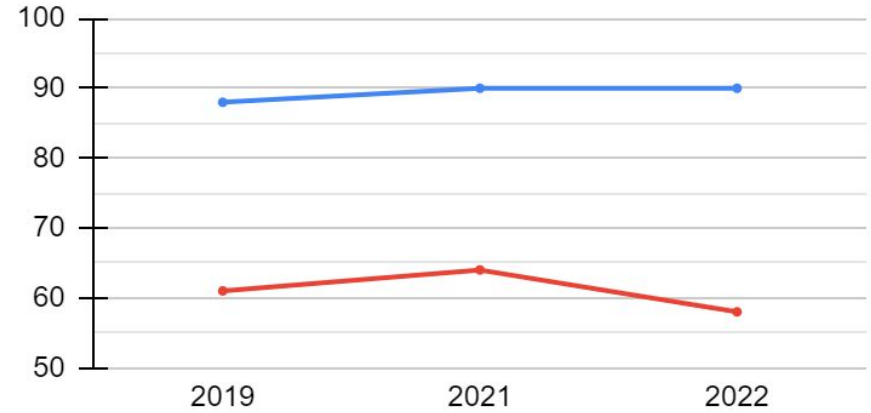
## Grade 10 - ELA

■ % School ■ % District ■ % State



## Grade 10 ELA 2019 - 2022

● % District ● % State



% Meeting/Exceeding Expectations



# MCAS 2022 ELA All Students

	Meeting/ Exceeding		Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations
	District	State				
Grade 3	71%	44%	19%	52%	26%	3%
Grade 4	72%	38%	12%	60%	26%	2%
Grade 5	71%	41%	13%	58%	27%	1%
Grade 6	78%	41%	34%	44%	17%	5%
Grade 7	75%	41%	21%	54%	23%	2%
Grade 8	74%	42%	20%	54%	23%	4%
Grade 10	91%	58%	25%	66%	9%	0%



# MCAS 2022 ELA Students with Disabilities

	Meeting/ Exceeding		Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations
	District	State				
Grade 3	31%	15%	2%	29%	56%	13%
Grade 4	25%	10%	3%	22%	63%	11%
Grade 5	35%	12%	3%	32%	59%	6%
Grade 6	34%	11%	8%	26%	42%	24%
Grade 7	36%	10%	9%	27%	53%	11%
Grade 8	26%	10%	5%	21%	45%	29%
Grade 10	43%	20%	5%	38%	52%	5%



# MCAS 2022 ELA High Needs

	Meeting/ Exceeding		Exceeding Expectations	Meeting Expectations	Partially Meeting Expectations	Not Meeting Expectations
	District	State				
Grade 3	44%	27%	4%	40%	45%	11%
Grade 4	35%	22%	4%	31%	58%	8%
Grade 5	41%	24%	5%	36%	54%	5%
Grade 6	44%	25%	16%	28%	37%	19%
Grade 7	43%	24%	9%	34%	49%	7%
Grade 8	32%	24%	6%	26%	45%	23%
Grade 10	63%	38%	7%	56%	35%	2%



# 2019-2022 ELA Results by Grade All Students

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
03	79%	N/A	79%	71%
04	78%	N/A	73%	72%
05	80%	N/A	74%	71%
06	90%	N/A	85%	78%
07	89%	N/A	75%	75%
08	83%	N/A	80%	74%
3-8	83%	N/A	77%	73%
10	90%	N/A	91%	91%

Note: A reminder that in 2020 MCAS was not given.



# 2019-2022 ELA Results by Grade SWD

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
03	41%	N/A	40%	31%
04	35%	N/A	31%	25%
05	29%	N/A	41%	35%
06	55%	N/A	55%	34%
07	42%	N/A	22%	36%
08	35%	N/A	31%	26%
3-8	37%	N/A	37%	30%
10	39%	N/A	41%	43%



# 2019-2022 ELA Results by Grade High Needs

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
03	45%	N/A	48%	44%
04	41%	N/A	38%	35%
05	39%	N/A	43%	41%
06	67%	N/A	62%	44%
07	62%	N/A	31%	43%
08	44%	N/A	52%	32%
3-8	48%	N/A	45%	39%
10	53%	N/A	49%	63%



# ELA Conclusions

## Key Takeaways:

- Exit outcomes in ELA for HHS students were strong in comparison to other districts.
- Grades 3–8 ELA performance indicated some areas of regression, but overall the pandemic losses were largely mitigated relative to state's performance.
- The statewide essay writing average dropped 18% from pre-pandemic assessments. HPS did not suffer anywhere near those same losses, and two grade levels even saw gains.





# ELA Conclusions

## Areas for Growth:

- A review of performance on specific passage analysis indicated a general need for more exposure to/practice with informational text in Grades 3–5.
- In examining data pertaining to subgroup 2022 performance on specific standards and actual exam items, on the whole HN cohorts demonstrated more deficits than SWD cohorts. These findings were evident in grades 3, 4, 7 and most notably grade 8 when compared against the state's subgroup performance.
- Challenge areas for our subgroups in the elementary level included identifying main idea and theme, as well as evaluating the role of a specific passage in relation to the larger text.
- Challenge areas for our subgroups at the middle school included drawing inferences, analyzing sentence structure, and making comparisons across passages.



# Elementary ELA Next Steps

- Adopt a new, fully-aligned K-5 reading program for Fall 2023.
- Continue our focus on optimizing MTSS efficacy in grades K-5.
- Implement iReady screener as well as the product's accompanying myPath lessons targeting specific skill and standard deficits in Grades 3-5.
- Continue development of common writing-across-the-curriculum tasks in science and social studies.
- Increase consistent implementation of *Empowering Writers* strategies in crafting narrative, expository, and opinion pieces.
- Train reading specialists in *Keys to Literacy* strategies to optimize push-in support outcomes, especially in the areas of vocabulary and comprehension.
- Collaborate with special educators, reading specialists, and interventionists to review MCAS data and plan strategies for remediating subgroups' challenge areas.



# Middle School ELA Next Steps

- Prioritize building MTSS efficacy in grades 6–8 through Tier 2 interventions provided by Reading Lab courses and other supports.
- Train reading specialists in *Keys to Literacy* strategies to initiate push-in coaching support, especially in the areas of academic vocabulary and comprehension.
- Collaborate with special educators, reading specialists, and interventionists to review MCAS data and plan strategies for remediating subgroups' challenge areas.
- Expand access for push-in support from writing specialist to accommodate all class periods.
- Continue vertical articulation of a grammar program targeting grade-level language standards.
- Implement literature circles that generate interest in independent reading while targeting key academic standards.



# High School ELA Next Steps

- Maintain robust writing program requiring 15 pieces of writing per year, representing an array of modes, purposes, and lengths.
- Maintain reading selections that demand proficiency with a representative range of text complexity.
- Collaborate with special educators and reading specialist to review MCAS data and plan strategies for remediating subgroups' challenge areas.
- Continue vertical articulation of a grammar program targeting grade-level language standards.
- Expand implementation of literature circles that generate interest in independent reading while targeting key academic standards.

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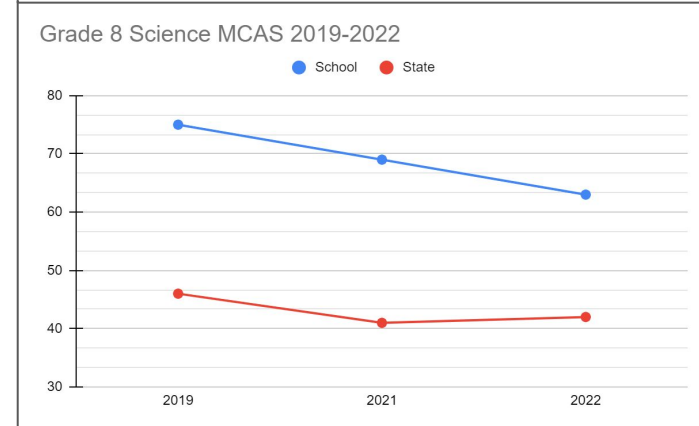
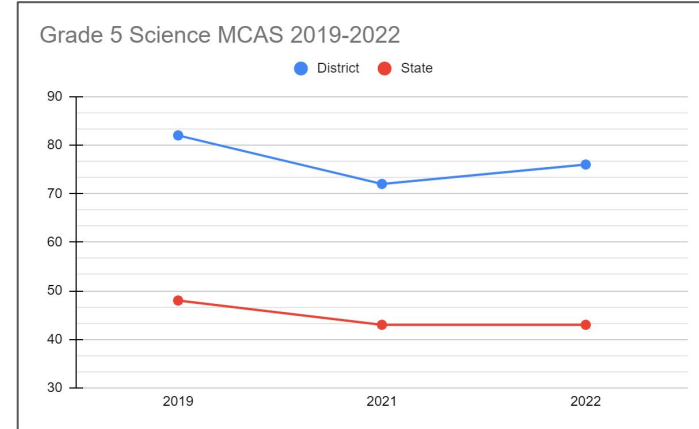
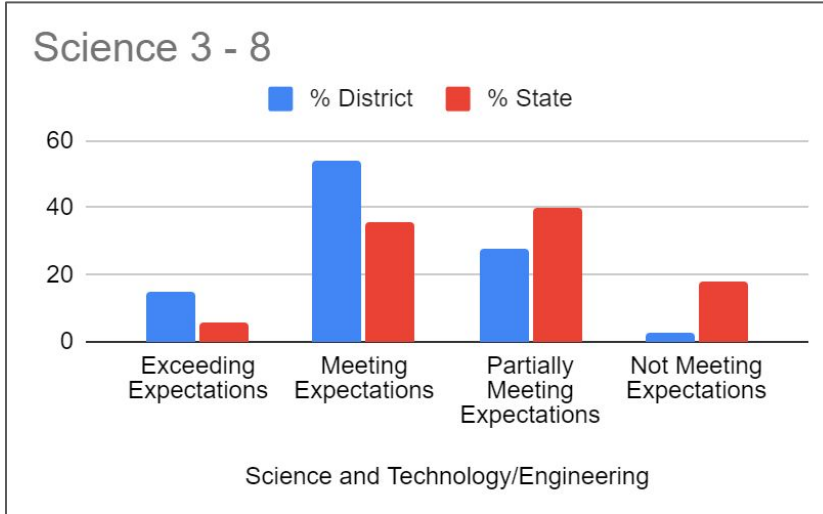
# MCAS 22 Assessment



# Science



# MCAS 2022 STE State Comparison Gr. 3-8

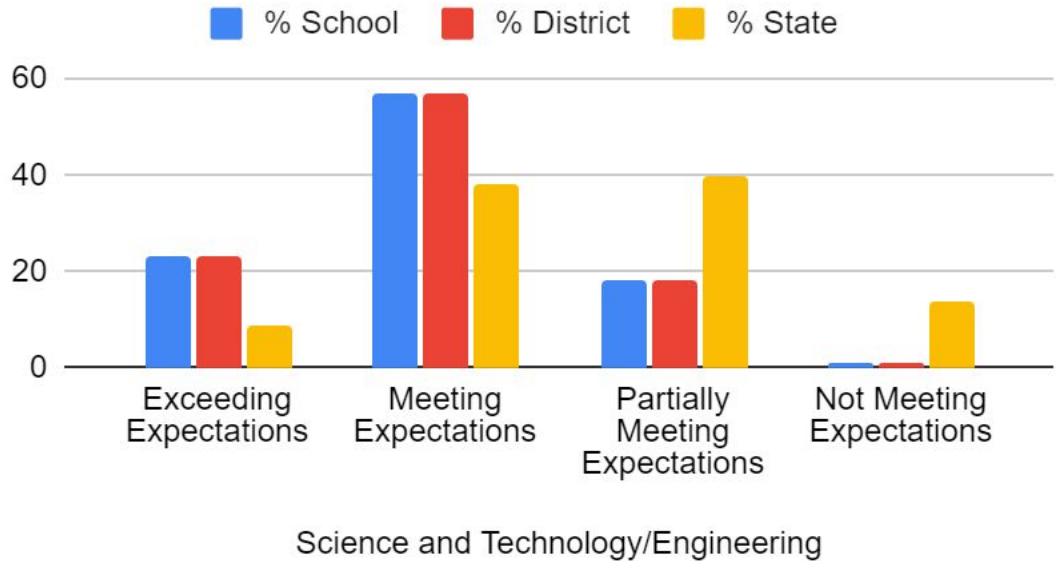




# MCAS 2022 STE State Comparison Gr. 10

Science and Technology/Engineering	% School	% District	% State
Exceeding Expectations	23	23	9
Meeting Expectations	57	57	38
Partially Meeting Expectations	18	18	40
Not Meeting Expectations	1	1	14

## Science Grade 10 MCAS 2.0





# MCAS 2022 STE All Students

<b><i>Next Generation Test</i></b>	<b>Meeting/ Exceeding</b>		<b>Exceeding Expectations</b>	<b>Meeting Expectations</b>	<b>Partially Meeting Expectations</b>	<b>Not Meeting Expectations</b>
	<b>District</b>	<b>State</b>				
Grade 5	76%	43%	18%	58%	22%	2%
Grade 8	63%	42%	12%	51%	33%	4%
HS Biology	80%	47%	23%	57%	18%	1%





# MCAS 2022 STE Students with Disabilities

<b><i>Next Generation Test</i></b>	<b>Meeting/ Exceeding</b>		<b>Exceeding Expectations</b>	<b>Meeting Expectations</b>	<b>Partially Meeting Expectations</b>	<b>Not Meeting Expectations</b>
	District	State				
Grade 5	39%	17%	3%	36%	52%	9%
Grade 8	24%	13%	2%	22%	54%	22%
HS Biology	37%	15%	5%	32%	53%	11%



# MCAS 2022 Science High Needs

<b><i>Next Generation Test</i></b>	<b>Meeting/ Exceeding</b>		<b>Exceeding Expectations</b>	<b>Meeting Expectations</b>	<b>Partially Meeting Expectations</b>	<b>Not Meeting Expectations</b>
	District	State				
Grade 5	47%	26%	4%	43%	46%	7%
Grade 8	29%	24%	2%	27%	54%	17%
HS Biology	53%	26%	10%	43%	43%	5%



# 2019-2022 STE Results by Grade All Students

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
05	81%	N/A	73%	76%
08	75%	N/A	68%	62%
10*		N/A		80%

\*Spring 2022 was the first administration of the Next-Generation High School Biology test.  
Therefore, results are not comparable to prior years.



# 2019-2022 STE Results by Grade SWD

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
05	50%	N/A	50%	39%
08	35%	N/A	11%	24%
10*		N/A		37%

\*Spring 2022 was the first administration of the Next-Generation High School Biology test.  
Therefore, results are not comparable to prior years.



# 2019-2022 STE Results by Grade High Needs

Grade	2019 % M/E	2020	2021 % M/E	2022 % M/E
05	50%	N/A	51%	47%
08	39%	N/A	28%	28%
10*		N/A		53%

\*Spring 2022 was the first administration of the Next-Generation High School Biology test.  
Therefore, results are not comparable to prior years.



# Science Conclusions

- Overall science scores indicate modest recovery in 2022 (across all districts & the state)
- HPS students continue to excel with a high percentage of students meeting and/or exceeding expectations
  - Grade 5 – 76%
  - Grade 8 – 63%
  - HS Biology – 80%
- Across all levels students excelled at *determining and explaining scientific concepts* and *interpreting data*
- Across all levels students struggled with *creating and analyzing models in order explain scientific concepts* and *making arguments from evidence*.



# Elementary STE Next Steps

- Increase emphasis on creating and analyzing models in order to reinforce scientific concepts.
- Increase emphasis on open response writing strategies including reading comprehension and addressing each part of a multi-step question.
- Increase emphasis on informational text as it related to the new reading pilot in Grades K-5.
  - Reorganize elementary scope & sequence to specifically align with reading units.
- Incorporate and reinforce *Keys to Literacy* strategies into science teaching practices specifically strategies to teach and reinforce academic vocabulary.



# Secondary STE Next Steps

## Middle School

- Pilot and implement OpenSciEd curriculum in Grades 6–8. This curriculum will:
  - Increase emphasis on data and analysis practices by including opportunities to create and analyze data tables & graphs.
  - Increase emphasis on determining evidence to support a claim.
- Increase emphasis on open response writing strategies including reading comprehension and addressing each part of a multi-step question.
  - Incorporate *Keys to Literacy* strategies into science teaching practices.

## High School

- Increase emphasis on determining evidence to support a claim.
- Increase emphasis on open response writing strategies including reading comprehension and addressing each part of a multi-step question.





# Questions?



# Hingham MCAS Curriculum Analysis

SPRING 2022

# Reports Analyzed

PE303 MCAS Results by Achievement Level: School, District & State Comparisons

PE305 School Achievement Distribution by Year (All Students only)

CU306 MCAS District and School Results by Standard (All, SWD, High Needs)

IT302 Item Analysis Graph (All, SWD, High Needs)

# ELA MCAS Data

SPRING 2022

## The following conclusions may be drawn from a review of the ELA MCAS data:

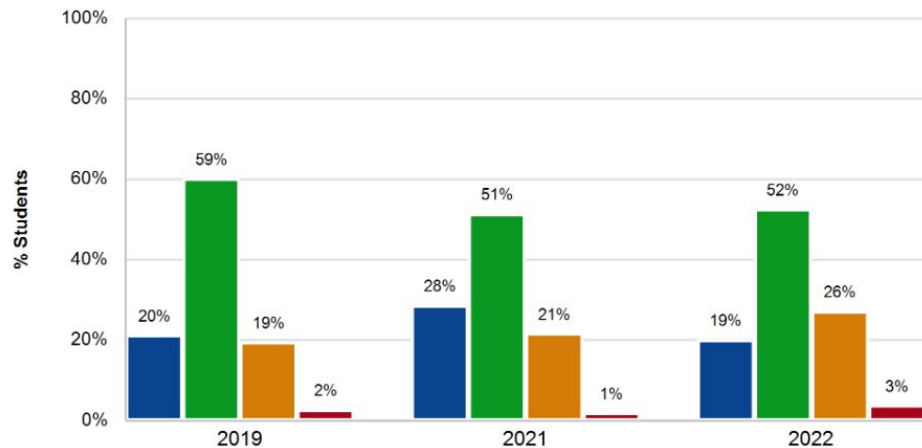
- With an average of 73% Meeting/Exceeding on the Grades 3–8 ELA MCAS for 2022, Hingham ranked 5th in the state. (Behind 1st place Lexington at 75%, and a three-way tie for second place by Belmont, Hopkinton, and Weston at 74%.)
- Pre-pandemic Grades 3–8 ELA MCAS 2019 had an average of 10% more students scoring in the Meeting/Exceeding range with a total of 83%. Though this general drop does indicate some areas of regression, overall the pandemic learning losses were largely mitigated relative to the state's performance.
- With an average 90% Meeting/Exceeding on the Grade 10 ELA MCAS for 2022, Hingham is first in the state according to data by district. When looking specifically at HHS with 91% Meeting/Exceeding, the school ranked 3rd in the state tied with Boston Latin Academy, and behind Boston Latin School at 96% for 1st place, and just after Bromfield Academy at 92% for 2nd place.
- HHS actually saw a 1% increase from a 2019 ELA MCAS pre-pandemic Meeting/Exceeding score of 90%.
- In tracking SWD cohorts from 2019 to 2022 we can observe some grade-level gains ranging from +1% to +6%, as well as some grade-level losses ranging from -3% to -7%.
- In tracking HN student cohorts from 2019 to 2022 we can observe some grade-level gains ranging from +1% to +5%, as well as some grade-level losses ranging from -1% to -7%.
- In examining data pertaining to subgroup 2022 performance on specific standards and actual exam items, on the whole HN cohorts demonstrated more deficits than SWD cohorts. These findings were evident in grades 3, 4, 7 and most notably grade 8 when compared against the state's subgroup performance.
- While the state-wide essay writing average dropped 18% from pre-pandemic assessments. Hingham did not suffer anywhere near those same losses. Our changes in the domain of writing from 2019 – 2022 were as follows: Grade 3, -6%; Grade 4, -5%; Grade 5, -4%; Grade 6, -4%; Grade 7, -3%; Grade 8, +5%; Grade 10, +2%.

# Grade 3 ELA

# ELA Grade 3

## Achievement Distribution by Year - School

Student Group : All Students



MCAS Achievement Level

- Exceeding Expectations
- Meeting Expectations
- Partially Meeting Expectations
- Not Meeting Expectations

	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	20%	10%	28%	9%	19%	6%
Meeting Expectations	59%	46%	51%	41%	52%	38%
Partially Meeting Expectations	19%	36%	21%	39%	26%	41%
Not Meeting Expectations	2%	8%	1%	10%	3%	15%
Average Scaled Score	517	504	516	500	511	497
N Students	329	67,900	299	63,613	281	64,584
Participation Rate			100%	97%	100%	99%
Mean SGP						

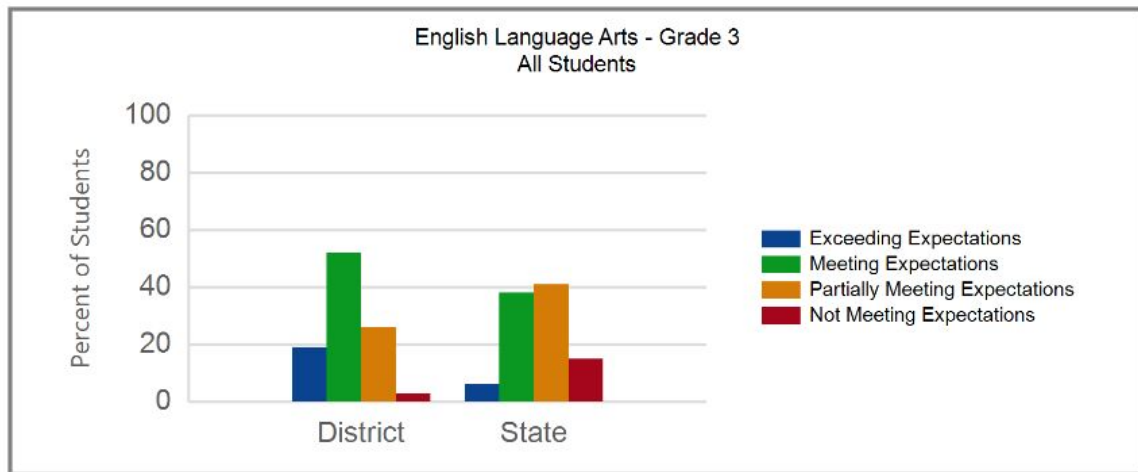
# ELA Grade 3

## Achievement Analysis - All Students

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	54	19	6
Meeting Expectations	145	52	38
Partially Meeting Expectations	74	26	41
Not Meeting Expectations	8	3	15
<b>Total Included</b>	<b>281</b>		

### All Students





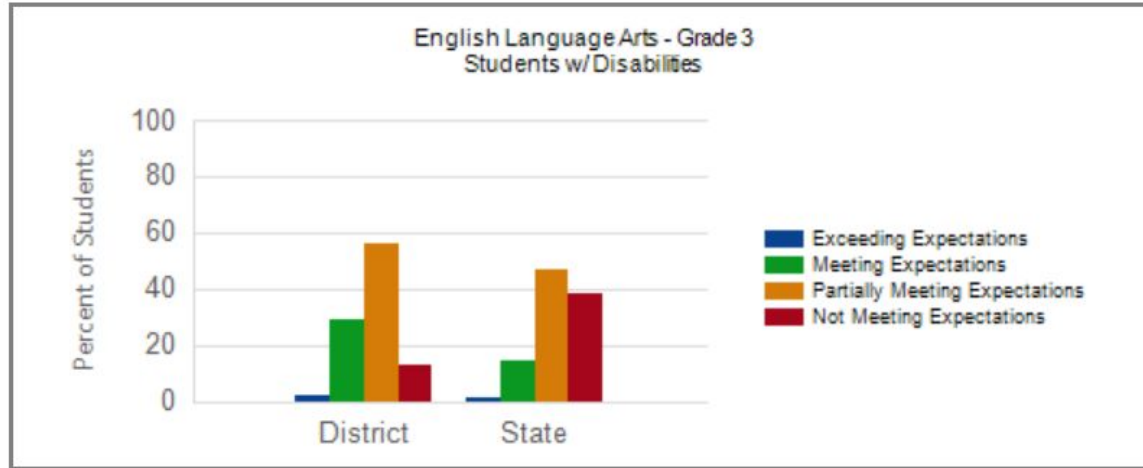
# ELA Grade 3

## Achievement Analysis - Students With Disabilities

### Students w/ Disabilities

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	1	2	1
Meeting Expectations	15	29	14
Partially Meeting Expectations	29	56	47
Not Meeting Expectations	7	13	38
<b>Total Included</b>	<b>52</b>		



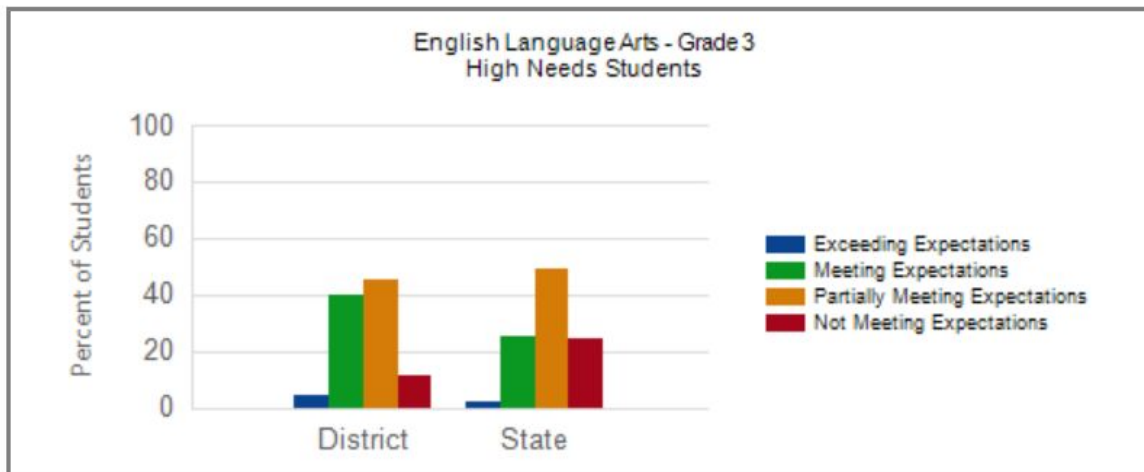
# ELA Grade 3

## Achievement Analysis - High Needs

### High Needs Students

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	3	4	2
Meeting Expectations	30	40	25
Partially Meeting Expectations	34	45	49
Not Meeting Expectations	8	11	24
<b>Total Included</b>	<b>75</b>		



# ELA Grade 3

## Curriculum Standards Analysis - All Students

All Students (281)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	44	65%	52%	13
<b>Question Type</b>				
Constructed Response	3	47%	35%	12
Essay	7	44%	24%	20
Selected Response	34	75%	65%	10
<b>Domain / Cluster</b>				
<b>Language</b>	13	73%	60%	13
Conventions of Standard English	3	53%	33%	20
Vocabulary Acquisition and Use	10	79%	69%	10
<b>Reading</b>	27	71%	60%	11
Craft and Structure	6	77%	67%	10
Integration of Knowledge and Ideas	8	57%	47%	10
Key Ideas and Details	13	76%	66%	10
<b>Writing</b>	4	37%	17%	20
Production and Distribution of Writing	4	37%	17%	20

# ELA Grade 3

## Curriculum Standards Analysis - Students With Disabilities

Students w/ Disabilities Students (52)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	44	48%	38%	11
<b>Question Type</b>				
Constructed Response	3	31%	23%	8
Essay	7	29%	14%	15
Selected Response	34	59%	49%	10
<b>Domain / Cluster</b>				
<b>Language</b>	<b>13</b>	<b>58%</b>	<b>45%</b>	<b>13</b>
Conventions of Standard English	3	39%	20%	19
Vocabulary Acquisition and Use	10	63%	52%	11
<b>Reading</b>	<b>27</b>	<b>54%</b>	<b>45%</b>	<b>9</b>
Craft and Structure	6	60%	50%	10
Integration of Knowledge and Ideas	8	42%	35%	7
Key Ideas and Details	13	59%	49%	10
<b>Writing</b>	<b>4</b>	<b>22%</b>	<b>9%</b>	<b>13</b>
Production and Distribution of Writing	4	22%	9%	13

# ELA Grade 3

## Curriculum Standards Analysis - High Needs

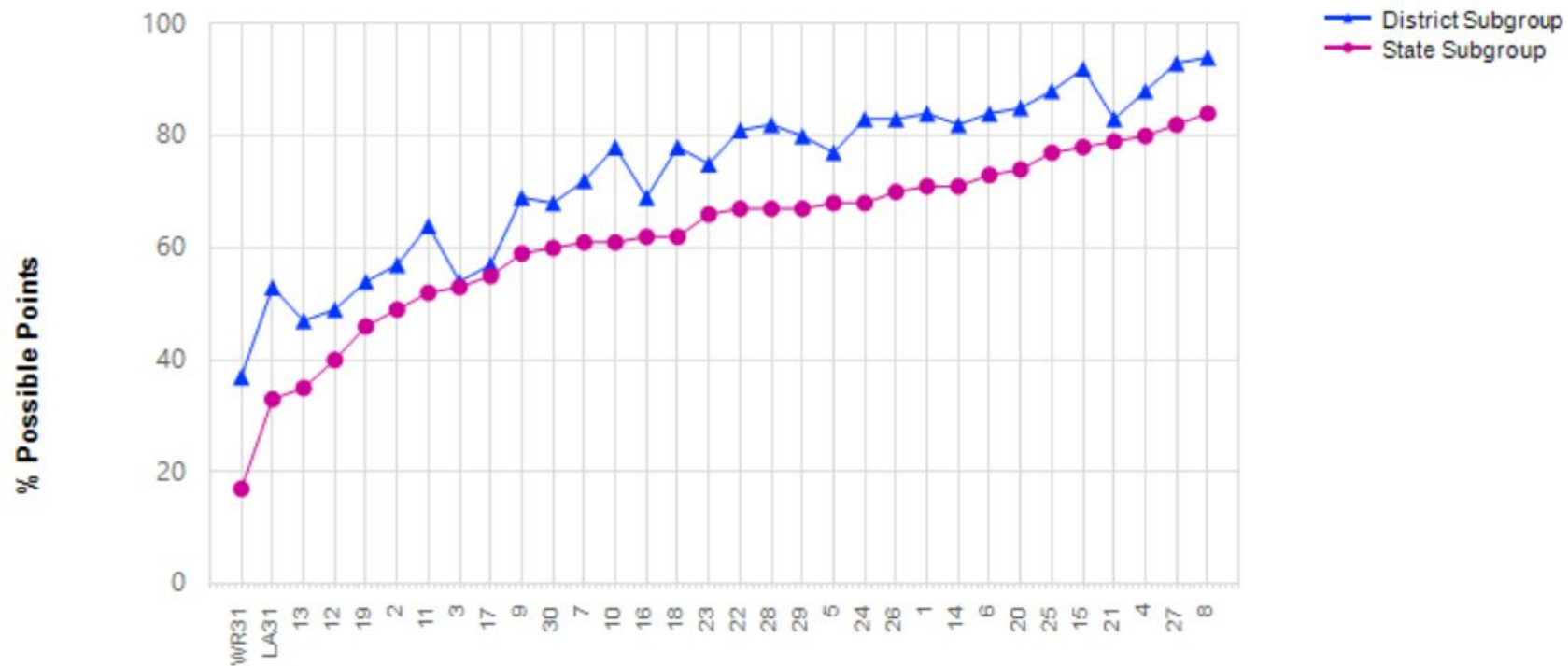
High Needs Students (75)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	44	54%	45%	9
<b>Question Type</b>				
Constructed Response	3	35%	29%	6
Essay	7	34%	19%	15
Selected Response	34	63%	57%	6
<b>Domain / Cluster</b>				
<b>Language</b>	13	62%	52%	10
Conventions of Standard English	3	44%	26%	18
Vocabulary Acquisition and Use	10	68%	60%	8
<b>Reading</b>	27	58%	52%	6
Craft and Structure	6	62%	58%	4
Integration of Knowledge and Ideas	8	47%	41%	6
Key Ideas and Details	13	64%	57%	7
<b>Writing</b>	4	28%	13%	15
Production and Distribution of Writing	4	28%	13%	15

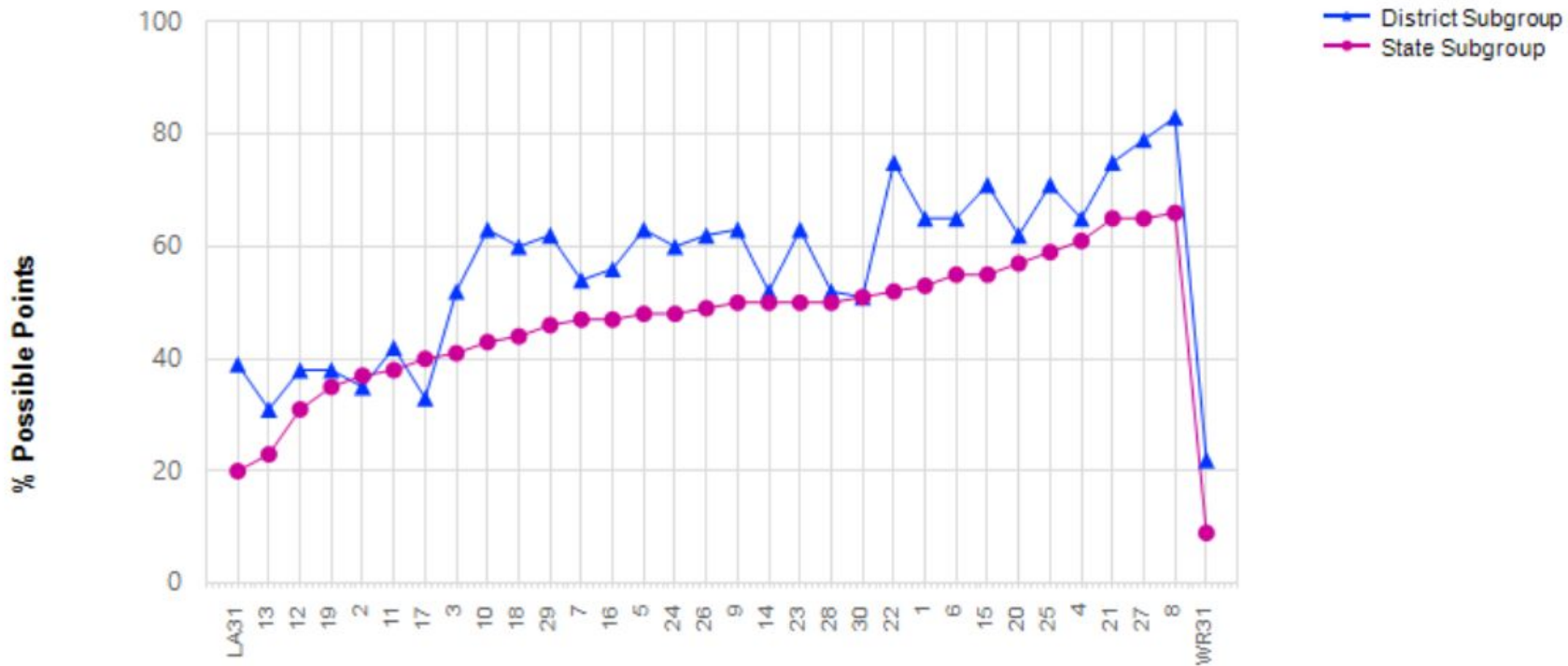
# ELA Grade 3

## Item Analysis - All Students



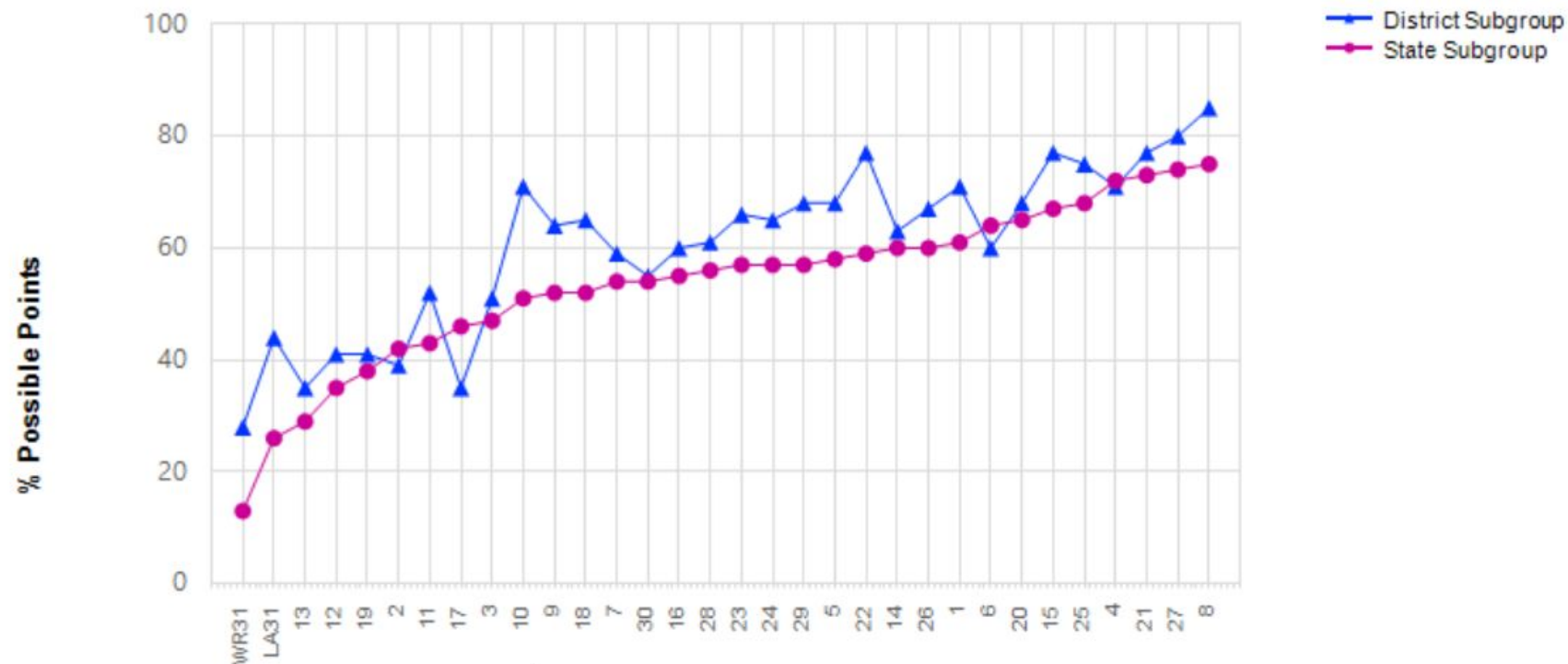
# ELA Grade 3

## Item Analysis - Students With Disabilities



# ELA Grade 3

## Item Analysis - High Needs





# ELA Grade 3 - Performance Summary

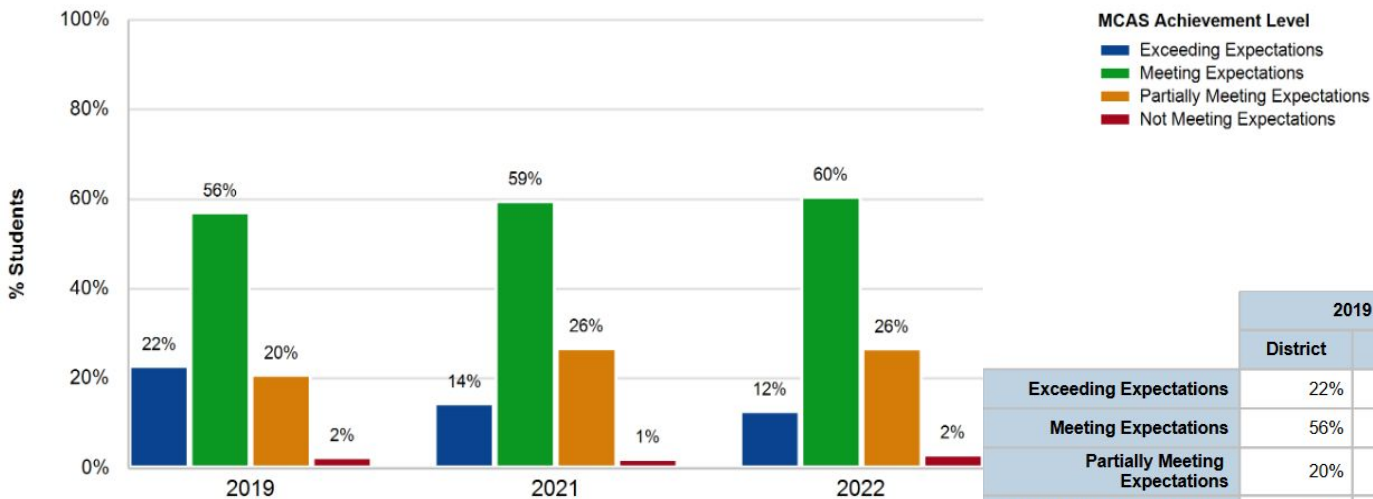
- 71% of ALL students Meeting/Exceeding for District; 44% of ALL students Meeting/Exceeding for State.
- Compared to the state, Grade 3 ELA students as a whole performed 13% higher in the language domain, 11% higher in the reading domain, and a noteworthy 20% higher in the writing domain. They also performed ABOVE the state average on all 31 test items.
- Compared to the state, Grade 3 ELA SWD performed 13% higher in the language domain, 9% higher in the reading domain, and 13% higher in the writing domain. This subgroup performed ABOVE the state average on 28 of 31 test items. The most significant challenge areas were identifying a main idea and the effect of a repeated phrase.
- Compared to the state, Grade 3 ELA HN students performed 10% higher in the language domain, 6% higher in the reading domain, and 15% higher in the writing domain. This subgroup performed ABOVE the state average on 27 of 31 test items. The most significant challenge area was discerning a main idea in a passage.

# Grade 4 ELA

# ELA Grade 4

## Achievement Distribution by Year - School

Student Group : All Students



	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	22%	9%	14%	6%	12%	4%
Meeting Expectations	56%	43%	59%	43%	60%	34%
Partially Meeting Expectations	20%	39%	26%	38%	26%	46%
Not Meeting Expectations	2%	9%	1%	13%	2%	16%
Average Scaled Score	516	502	512	498	509	493
N Students	304	69,814	299	65,055	301	65,013
Participation Rate			99%	97%	100%	99%
Mean SGP	62	50			58	50

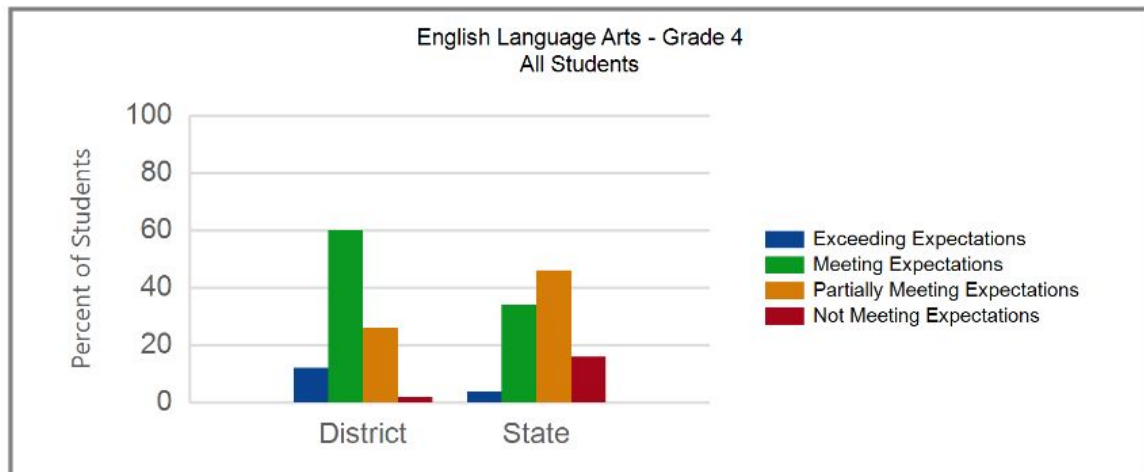
# ELA Grade 4

## Achievement Analysis - All Students

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	36	12	4
Meeting Expectations	180	60	34
Partially Meeting Expectations	78	26	46
Not Meeting Expectations	7	2	16
<b>Total Included</b>	<b>301</b>		

### All Students



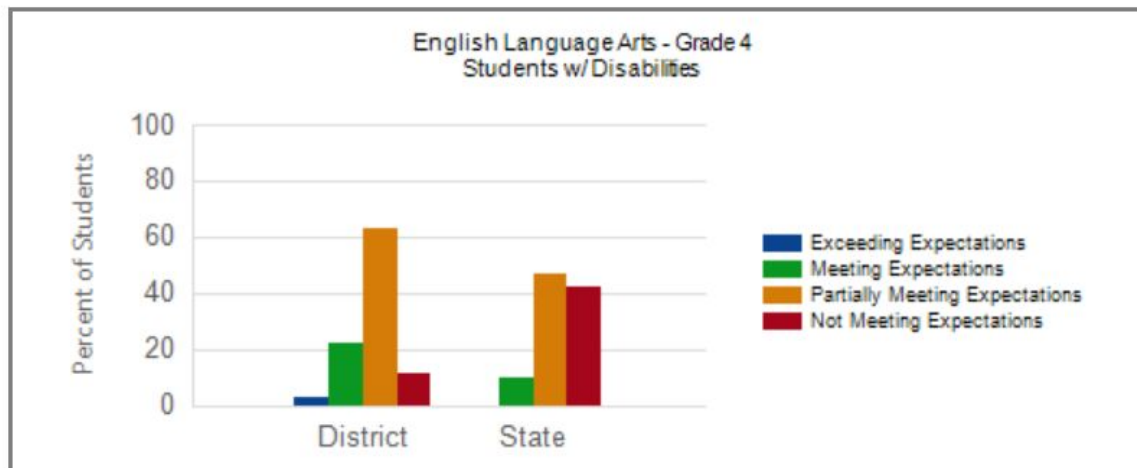
# ELA Grade 4

## Achievement Analysis - Students With Disabilities

### Students w/ Disabilities

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	2	3	0
Meeting Expectations	14	22	10
Partially Meeting Expectations	40	63	47
Not Meeting Expectations	7	11	42
<b>Total Included</b>	<b>63</b>		



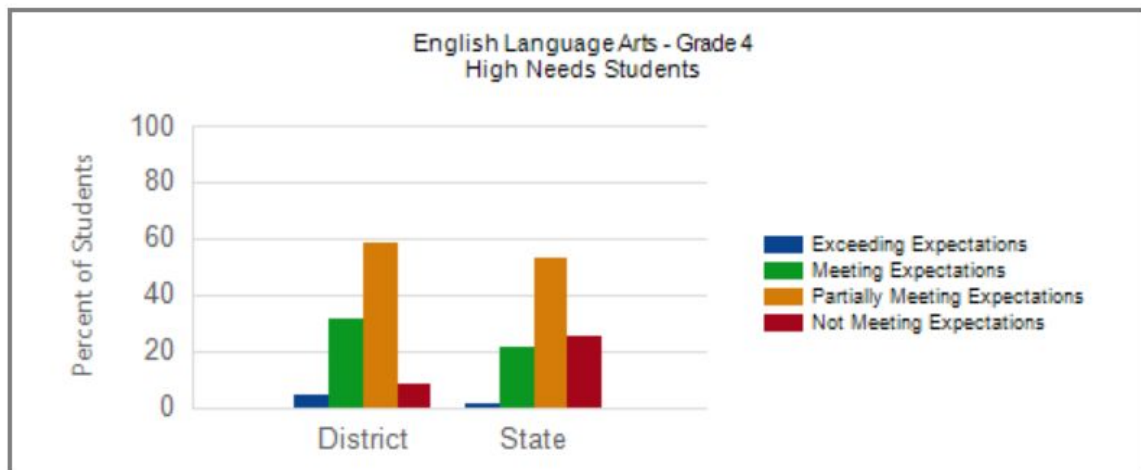
# ELA Grade 4

## Achievement Analysis - High Needs

### High Needs Students

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	3	4	1
Meeting Expectations	26	31	21
Partially Meeting Expectations	49	58	53
Not Meeting Expectations	7	8	25
<b>Total Included</b>	<b>85</b>		



# ELA Grade 4

## Curriculum Standards Analysis - All Students

All Students (301)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All Items	44	68%	54%	14
<b>Question Type</b>				
Constructed Response	3	67%	40%	27
Essay	7	52%	34%	18
Selected Response	34	75%	63%	12
<b>Domain / Cluster</b>				
<b>Language</b>	<b>12</b>	<b>71%</b>	<b>56%</b>	<b>15</b>
Conventions of Standard English	5	60%	44%	16
Knowledge of Language	1	70%	55%	15
Vocabulary Acquisition and Use	6	80%	66%	14
<b>Reading</b>	<b>28</b>	<b>75%</b>	<b>61%</b>	<b>14</b>
Craft and Structure	8	73%	59%	14
Integration of Knowledge and Ideas	2	59%	54%	5
Key Ideas and Details	18	77%	63%	14
<b>Writing</b>	<b>4</b>	<b>46%</b>	<b>29%</b>	<b>17</b>
Production and Distribution of Writing	4	46%	29%	17

# ELA Grade 4

## Curriculum Standards Analysis - Students With Disabilities

Students w/ Disabilities Students (63)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	44	50%	38%	12
<b>Question Type</b>				
Constructed Response	3	43%	22%	21
Essay	7	31%	17%	14
Selected Response	34	58%	48%	10
<b>Domain / Cluster</b>				
<b>Language</b>	12	49%	39%	10
Conventions of Standard English	5	38%	27%	11
Knowledge of Language	1	40%	34%	6
Vocabulary Acquisition and Use	6	61%	49%	12
<b>Reading</b>	28	58%	46%	12
Craft and Structure	8	55%	45%	10
Integration of Knowledge and Ideas	2	40%	40%	0
Key Ideas and Details	18	62%	47%	15
<b>Writing</b>	4	26%	14%	12
Production and Distribution of Writing	4	26%	14%	12



# ELA Grade 4

## Curriculum Standards Analysis - High Needs

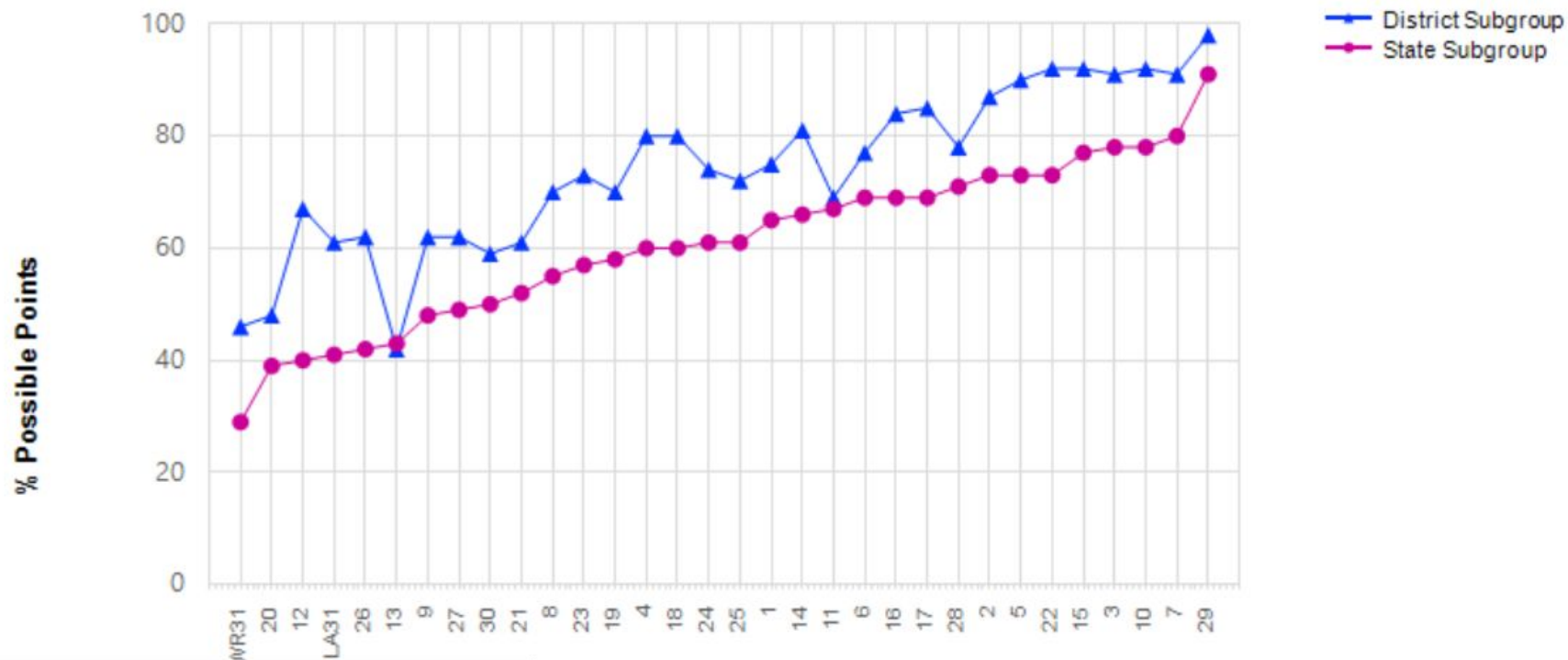
High Needs Students (85)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	44	54%	46%	8
<b>Question Type</b>				
Constructed Response	3	47%	32%	15
Essay	7	37%	26%	11
Selected Response	34	61%	55%	6
<b>Domain / Cluster</b>				
<b>Language</b>	<b>12</b>	<b>54%</b>	<b>47%</b>	<b>7</b>
Conventions of Standard English	5	44%	36%	8
Knowledge of Language	1	42%	43%	-1
Vocabulary Acquisition and Use	6	64%	57%	7
<b>Reading</b>	<b>28</b>	<b>61%</b>	<b>53%</b>	<b>8</b>
Craft and Structure	8	57%	51%	6
Integration of Knowledge and Ideas	2	43%	47%	-4
Key Ideas and Details	18	65%	55%	10
<b>Writing</b>	<b>4</b>	<b>31%</b>	<b>21%</b>	<b>10</b>
Production and Distribution of Writing	4	31%	21%	10

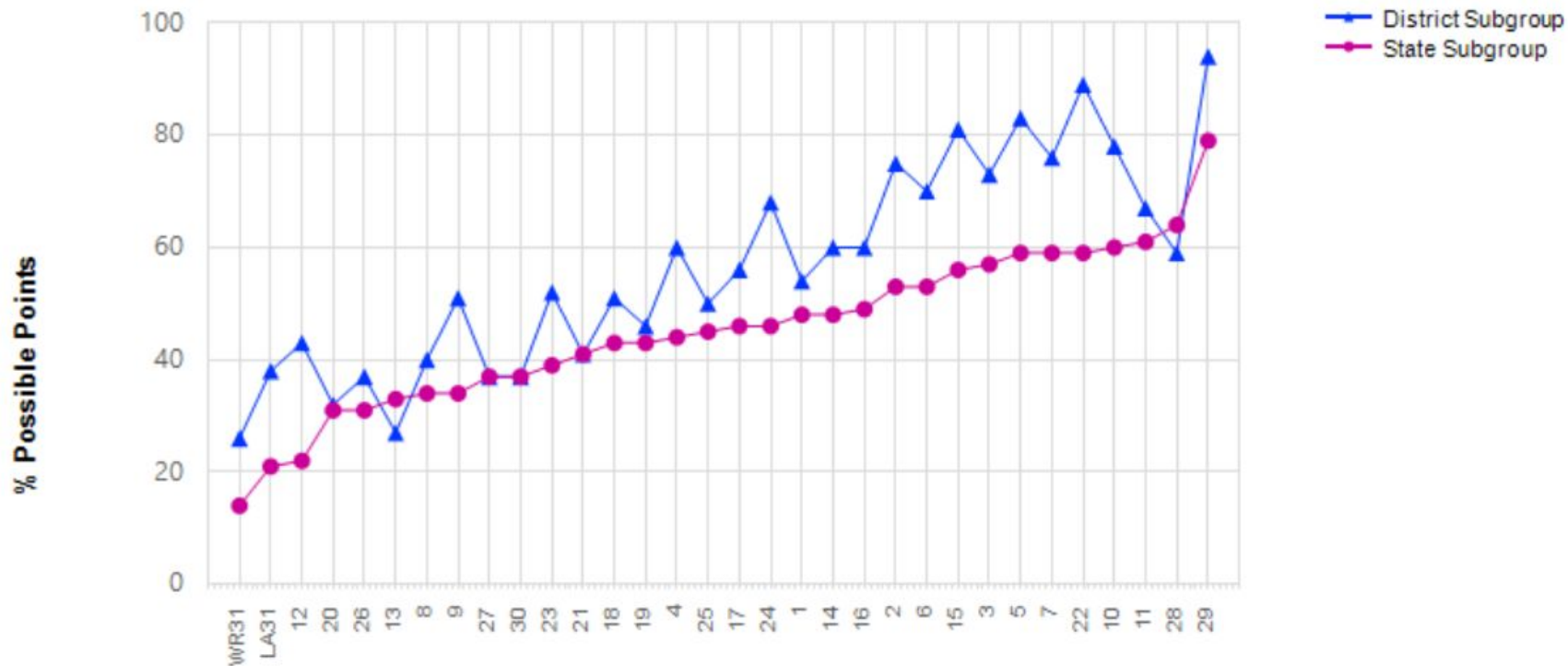
# ELA Grade 4

## Item Analysis - All Students



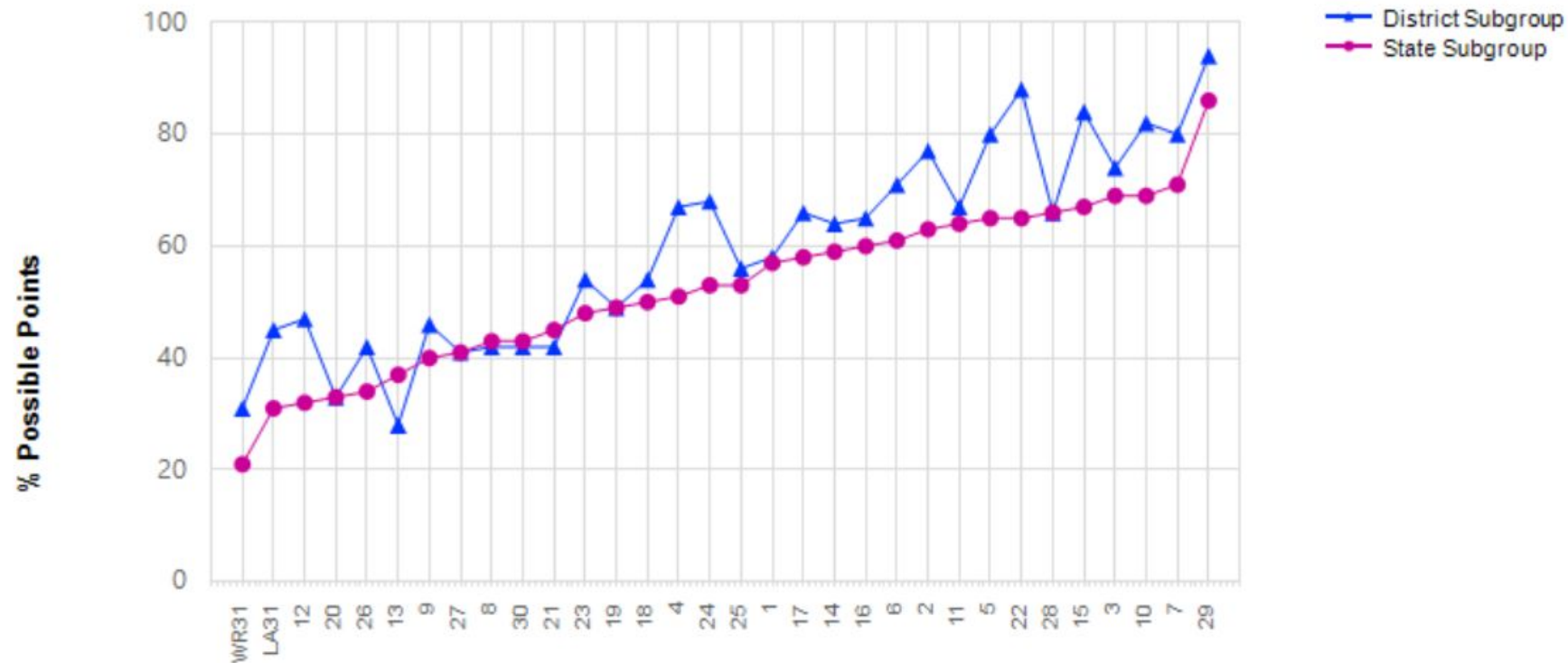
# ELA Grade 4

## Item Analysis - Students With Disabilities



# ELA Grade 4

## Item Analysis - High Needs



# ELA Grade 4 - Performance Summary

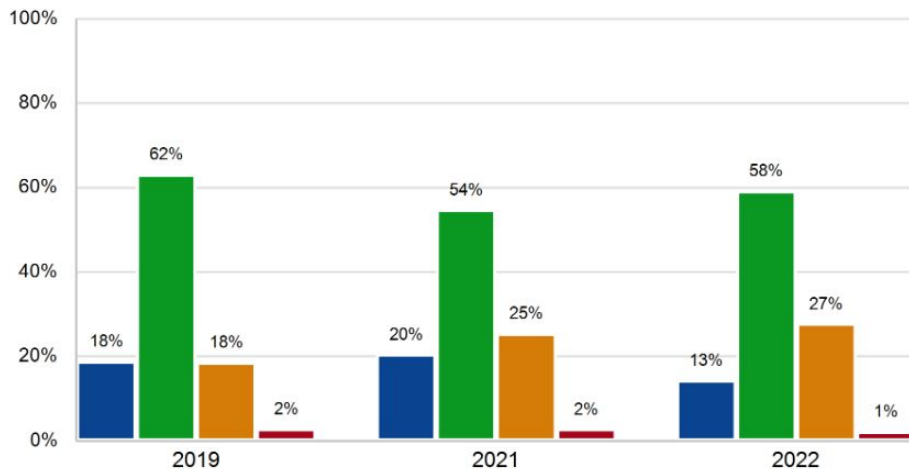
- 72% of ALL students Meeting/Exceeding for District; 38% of ALL students Meeting/Exceeding for State.
- Compared to the state, Grade 4 ELA students as a whole performed 15% higher in the language domain, 14% higher in the reading domain, and a noteworthy 17% higher in the writing domain. They also performed ABOVE the state average on 30 of 31 test items.
- Compared to the state, Grade 4 ELA SWD performed 10% higher in the language domain, 12% higher in the reading domain, and 12% higher in the writing domain. This subgroup performed ABOVE the state average on 26 of 31 test items. The most significant challenge areas were identifying a theme and determining the role of an illustration.
- Compared to the state, Grade 4 ELA HN students performed 7% higher in the language domain, 8% higher in the reading domain, and 10% higher in the writing domain. This subgroup performed ABOVE the state average on 23 of 31 test items. The most significant challenge areas were determining the role of an illustration and the importance of a specific section of a passage in relation to the larger text.

# Grade 5 ELA

# ELA Grade 5

## Achievement Distribution by Year - School

Student Group : All Students



MCAS Achievement Level

- Exceeding Expectations
- Meeting Expectations
- Partially Meeting Expectations
- Not Meeting Expectations

	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	18%	7%	20%	8%	13%	5%
Meeting Expectations	62%	45%	54%	39%	58%	36%
Partially Meeting Expectations	18%	39%	25%	41%	27%	46%
Not Meeting Expectations	2%	9%	2%	12%	1%	13%
Average Scaled Score	515	501	512	497	510	495
N Students	361	72,129	321	65,454	298	66,199
Participation Rate			100%	97%	100%	99%
Mean SGP	59	50	44	35	64	50

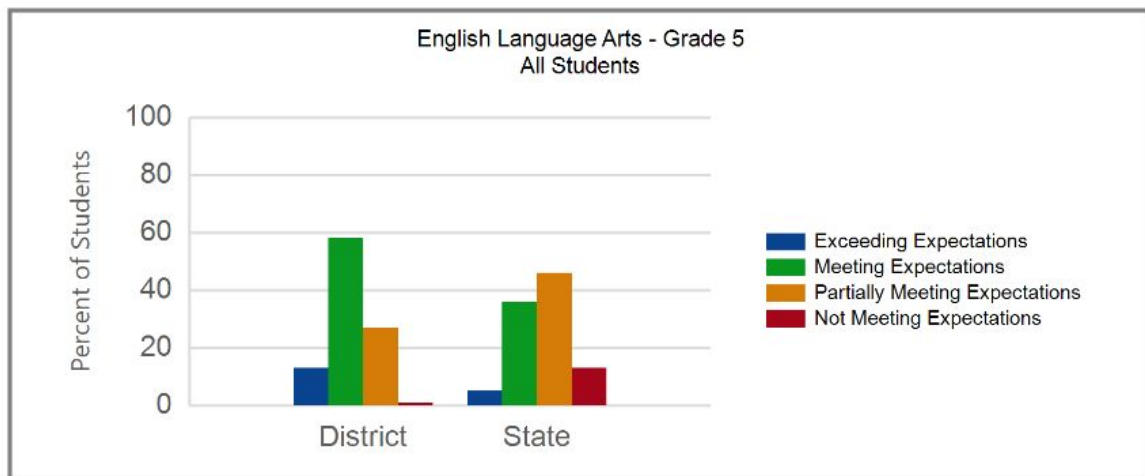
# ELA Grade 5

## Achievement Analysis - All Students

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	40	13	5
Meeting Expectations	174	58	36
Partially Meeting Expectations	80	27	46
Not Meeting Expectations	4	1	13
<b>Total Included</b>	<b>298</b>		

### All Students





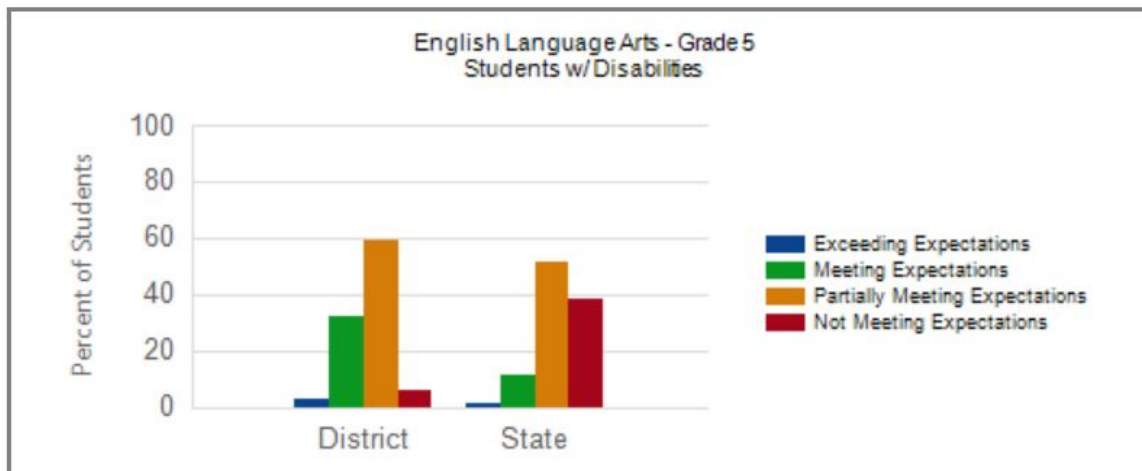
# ELA Grade 5

## Achievement Analysis - Students With Disabilities

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	2	3	1
Meeting Expectations	22	32	11
Partially Meeting Expectations	41	59	51
Not Meeting Expectations	4	6	38
<b>Total Included</b>	<b>69</b>		

Students w/ Disabilities



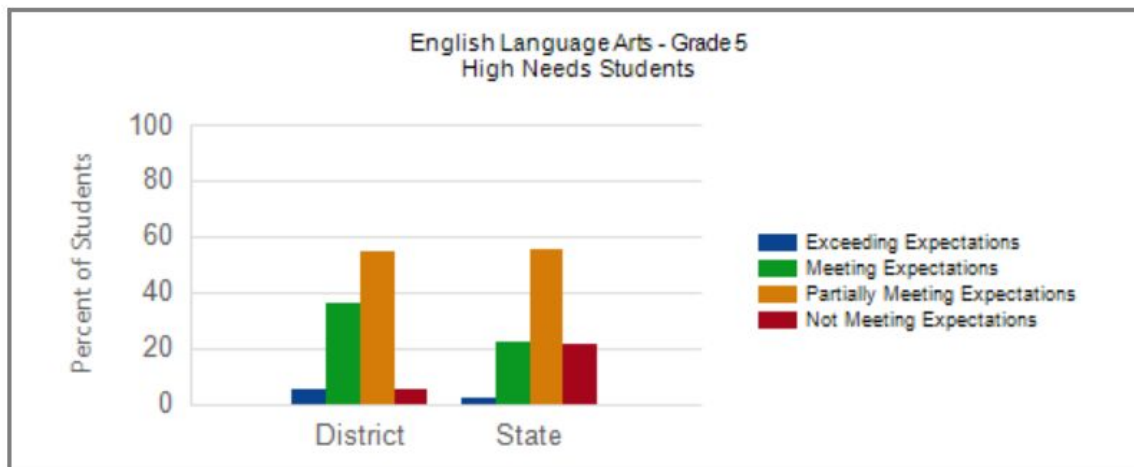
# ELA Grade 5

## Achievement Analysis - High Needs

### High Needs Students

Participation Rate: 100%

English Language Arts	N Students Included	% District	% State
Exceeding Expectations	4	5	2
Meeting Expectations	31	36	22
Partially Meeting Expectations	46	54	55
Not Meeting Expectations	4	5	21
<b>Total Included</b>	<b>85</b>		



# ELA Grade 5

## Curriculum Standards Analysis - All Students

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All Students (298)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	48	70%	54%	16
<b>Question Type</b>				
Essay	14	54%	32%	22
Selected Response	34	83%	72%	11
<b>Domain / Cluster</b>				
<b>Language</b>	14	78%	61%	17
Conventions of Standard English	6	62%	40%	22
Knowledge of Language	2	90%	77%	13
Vocabulary Acquisition and Use	6	89%	77%	12
<b>Reading</b>	26	81%	70%	11
Craft and Structure	12	83%	72%	11
Integration of Knowledge and Ideas	5	82%	72%	10
Key Ideas and Details	9	77%	66%	11
<b>Writing</b>	8	47%	26%	21
Production and Distribution of Writing	8	47%	26%	21

# ELA Grade 5

## Curriculum Standards Analysis - Students With Disabilities

Students w/ Disabilities Students (69)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	48	54%	37%	17
<b>Question Type</b>				
Essay	14	31%	16%	15
Selected Response	34	72%	54%	18
<b>Domain / Cluster</b>				
<b>Language</b>	<b>14</b>	<b>61%</b>	<b>42%</b>	<b>19</b>
Conventions of Standard English	6	39%	21%	18
Knowledge of Language	2	78%	55%	23
Vocabulary Acquisition and Use	6	77%	59%	18
<b>Reading</b>	<b>26</b>	<b>71%</b>	<b>53%</b>	<b>18</b>
Craft and Structure	12	72%	55%	17
Integration of Knowledge and Ideas	5	73%	55%	18
Key Ideas and Details	9	68%	50%	18
<b>Writing</b>	<b>8</b>	<b>26%</b>	<b>12%</b>	<b>14</b>
Production and Distribution of Writing	8	26%	12%	14

# ELA Grade 5

## Curriculum Standards Analysis - High Needs

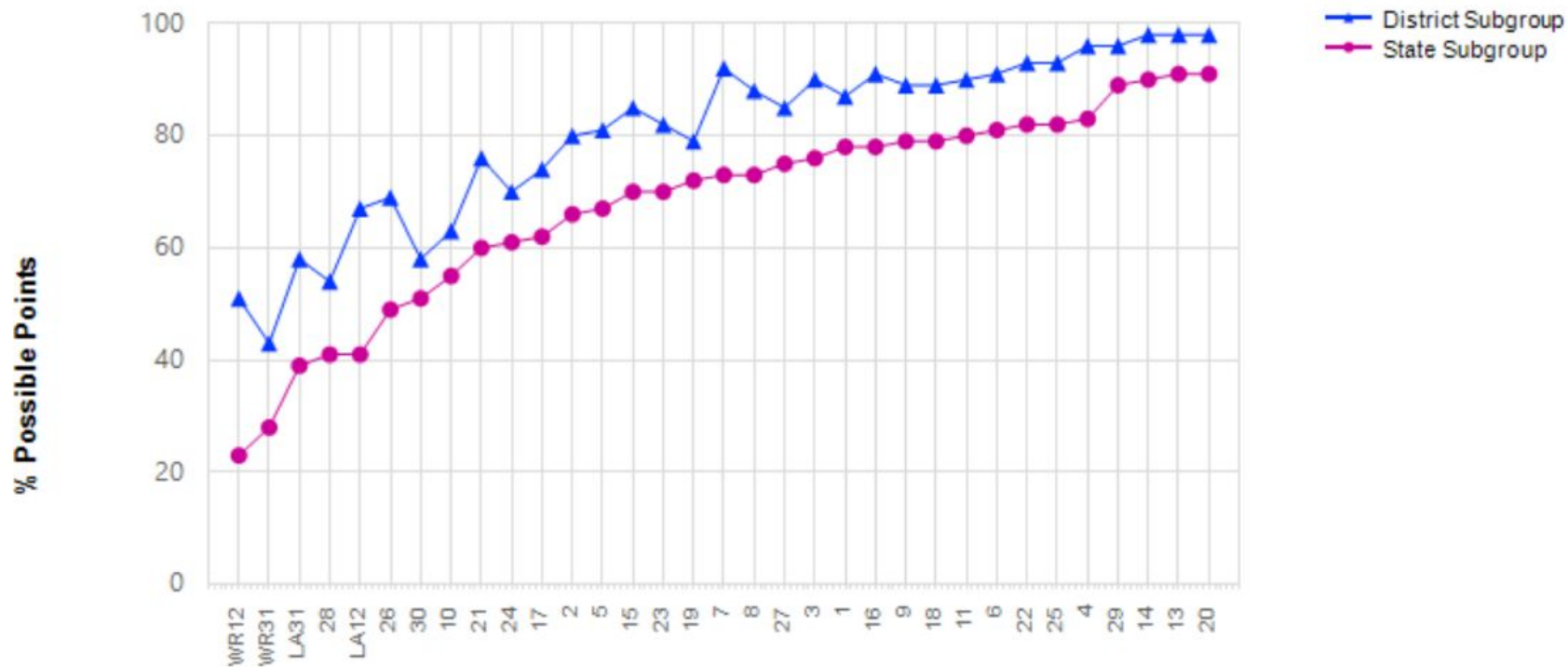
High Needs Students (85)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>English Language Arts</b>				
All items	48	57%	46%	11
<b>Question Type</b>				
Essay	14	36%	24%	12
Selected Response	34	74%	63%	11
<b>Domain / Cluster</b>				
<b>Language</b>	<b>14</b>	<b>64%</b>	<b>52%</b>	<b>12</b>
Conventions of Standard English	6	43%	31%	12
Knowledge of Language	2	79%	67%	12
Vocabulary Acquisition and Use	6	79%	69%	10
<b>Reading</b>	<b>26</b>	<b>72%</b>	<b>62%</b>	<b>10</b>
Craft and Structure	12	74%	64%	10
Integration of Knowledge and Ideas	5	75%	65%	10
Key Ideas and Details	9	69%	58%	11
<b>Writing</b>	<b>8</b>	<b>31%</b>	<b>19%</b>	<b>12</b>
Production and Distribution of Writing	8	31%	19%	12

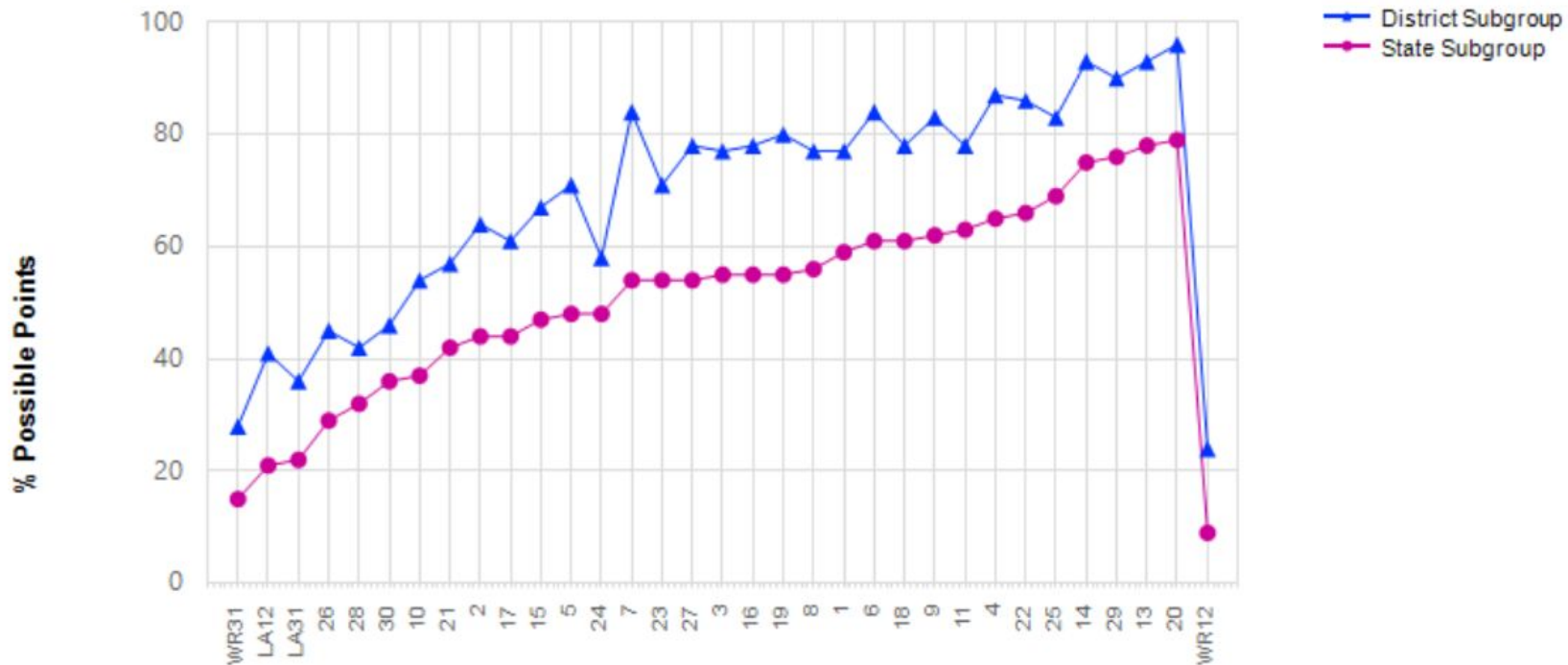
# ELA Grade 5

## Item Analysis - All Students



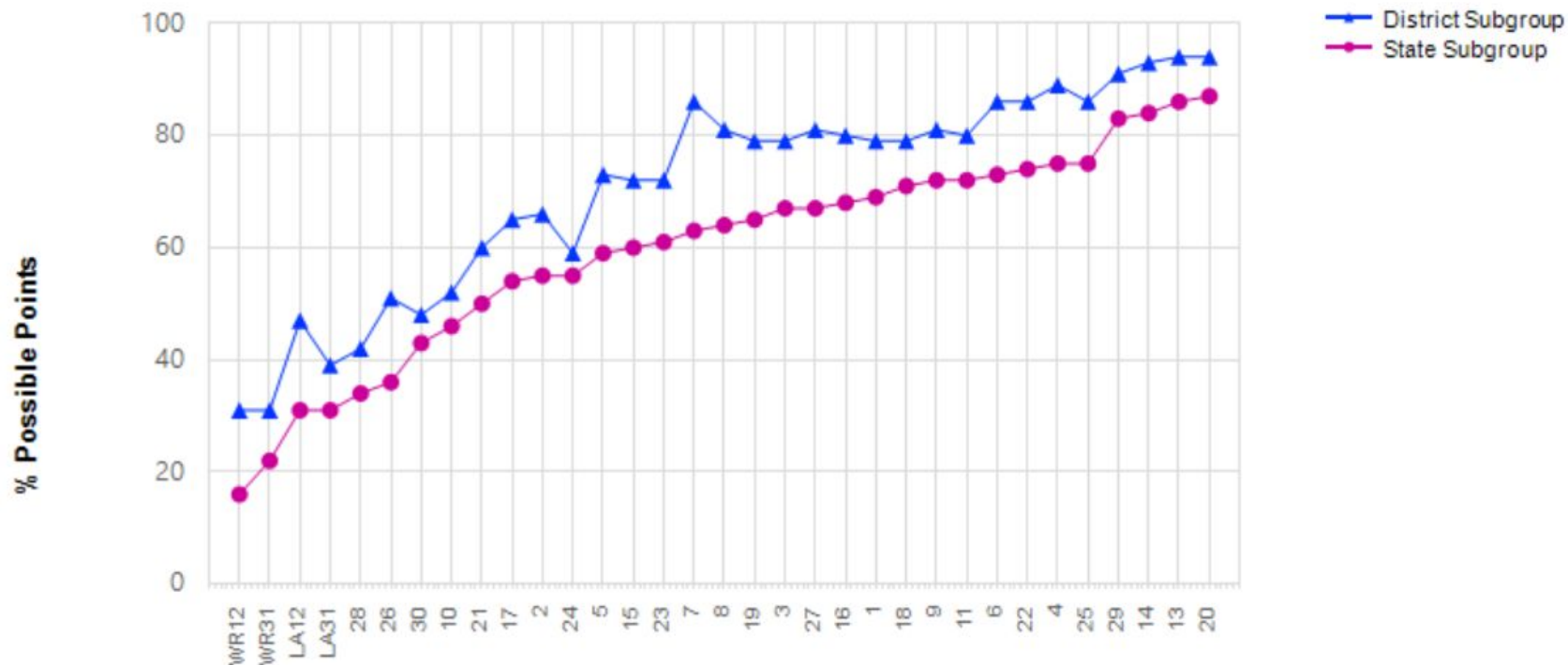
# ELA Grade 5

## Item Analysis - Students With Disabilities



# ELA Grade 5

## Item Analysis - High Needs





# ELA Grade 5 - Performance Summary

- 71% of ALL students Meeting/Exceeding for District; 41% of ALL students Meeting/Exceeding for State.
- Compared to the state, Grade 5 ELA students as a whole performed 17% higher in the language domain, 11% higher in the reading domain, and a noteworthy 21% higher in the writing domain. They also performed ABOVE the state average on all 31 test items.
- Compared to the state, Grade 5 ELA SWD performed 19% higher in the language domain, 18% higher in the reading domain, and 14% higher in the writing domain. This subgroup performed ABOVE the state average on all 31 test items.
- Compared to the state, Grade 5 ELA HN students performed 12% higher in the language domain, 10% higher in the reading domain, and 12% higher in the writing domain. This subgroup performed ABOVE the state average on all 31 test items.

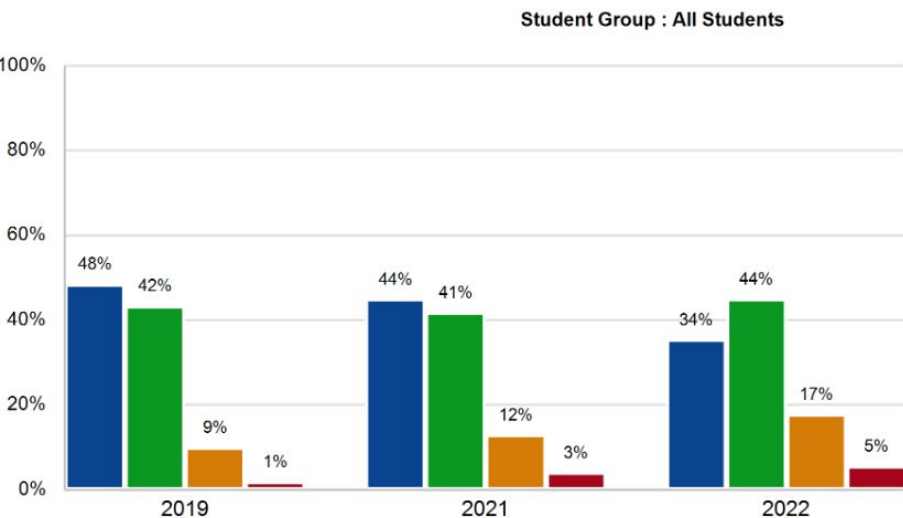
# Elementary ELA Action Steps

- Adopt a new, fully-aligned K-5 reading program for Fall 2023.
- Continue our focus on optimizing MTSS efficacy in grades K-5.
- Implement iReady screener as well as the product's accompanying myPath lessons targeting specific skill and standard deficits in Grades 3-5.
- Continue development of common writing-across-the-curriculum tasks in science and social studies.
- Increase consistent implementation of *Empowering Writers* strategies in crafting narrative, expository, and opinion pieces.
- Train reading specialists in *Keys to Literacy* strategies to optimize push-in support outcomes, especially in the areas of vocabulary and comprehension.
- Collaborate with special educators, reading specialists, and interventionists to review MCAS data and plan strategies for remediating subgroups' challenge areas.

# Grade 6 ELA

# ELA Grade 6

## Achievement Distribution by Year - School



**MCAS Achievement Level**

- Exceeding Expectations
- Meeting Expectations
- Partially Meeting Expectations
- Not Meeting Expectations

	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	48%	47%	13%	44%	44%	12%	34%	34%	8%
Meeting Expectations	42%	42%	41%	41%	41%	35%	44%	43%	33%
Partially Meeting Expectations	9%	9%	33%	12%	12%	31%	17%	17%	36%
Not Meeting Expectations	1%	2%	13%	3%	3%	22%	5%	5%	22%
Average Scaled Score	528	528	501	525	525	497	518	517	493
N Students	311	319	72,257	291	294	66,466	302	306	66,273
Participation Rate				99%	98%	96%	99%	98%	99%
Mean SGP	69	69	50	62	62	37	65	65	50

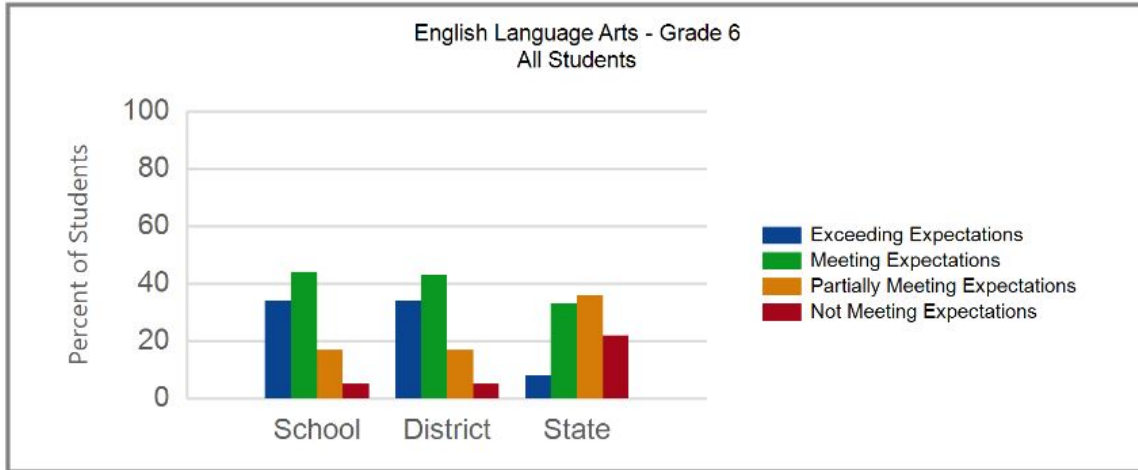
# ELA Grade 6

## Achievement Analysis - All Students

**Participation Rate: 99%**

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	104	34	34	8
Meeting Expectations	133	44	43	33
Partially Meeting Expectations	51	17	17	36
Not Meeting Expectations	14	5	5	22
<b>Total Included</b>	<b>302</b>			

### All Students



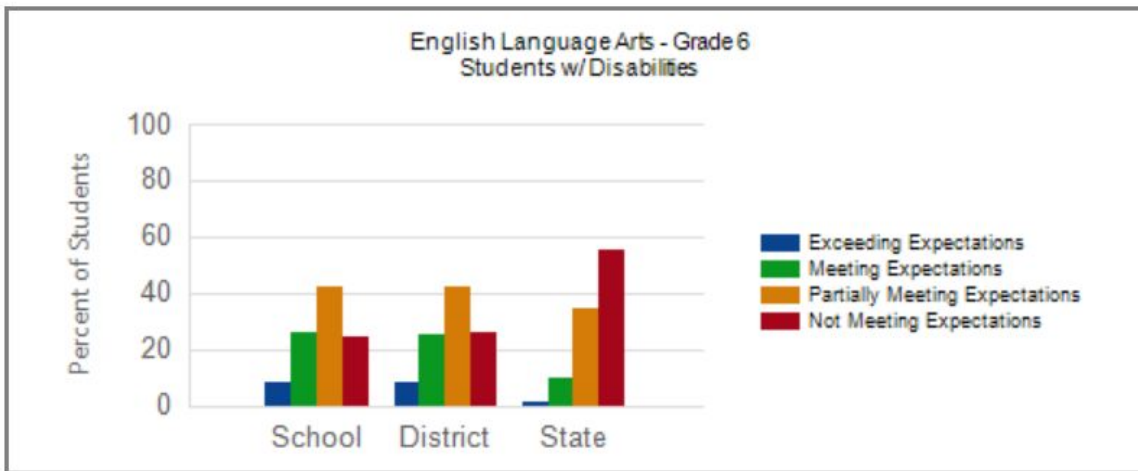
# ELA Grade 6

## Achievement Analysis - Students With Disabilities

### Students w/ Disabilities

Participation Rate: 98%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	4	8	8	1
Meeting Expectations	13	26	25	10
Partially Meeting Expectations	21	42	42	34
Not Meeting Expectations	12	24	26	55
<b>Total Included</b>	<b>50</b>			



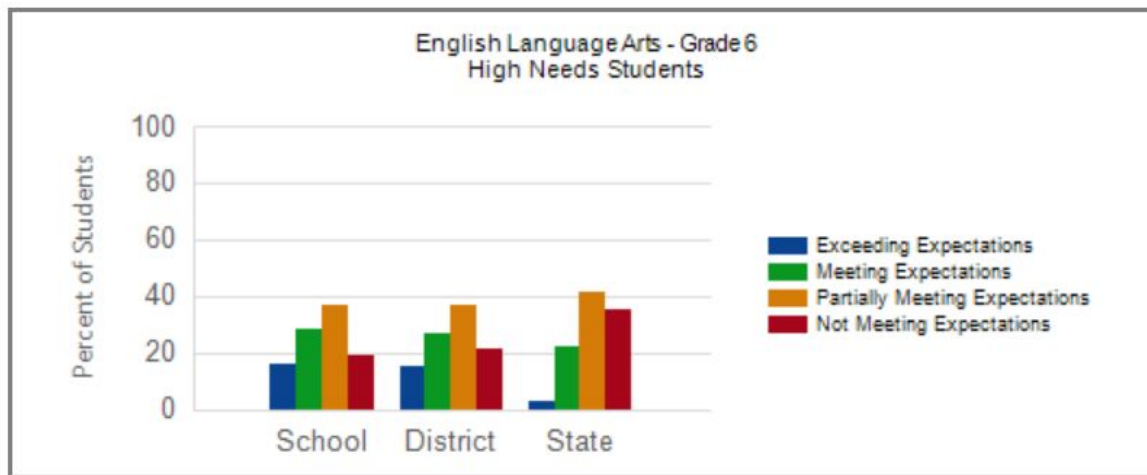
# ELA Grade 6

## Achievement Analysis - High Needs

Participation Rate: 99%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	11	16	15	3
Meeting Expectations	19	28	27	22
Partially Meeting Expectations	25	37	37	41
Not Meeting Expectations	13	19	21	35
<b>Total Included</b>	<b>68</b>			

### High Needs Students



# ELA Grade 6

## Curriculum Standards Analysis - All Students

All Students (300)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	71%	71%	51%	20
<b>Question Type</b>					
Essay	16	65%	64%	36%	28
Selected Response	34	78%	78%	65%	13
<b>Domain / Cluster</b>					
<b>Language</b>	<b>13</b>	<b>81%</b>	<b>81%</b>	<b>58%</b>	<b>23</b>
Conventions of Standard English	8	80%	80%	52%	28
Vocabulary Acquisition and Use	5	83%	82%	67%	16
<b>Reading</b>	<b>27</b>	<b>76%</b>	<b>76%</b>	<b>64%</b>	<b>12</b>
Craft and Structure	13	77%	76%	64%	13
Integration of Knowledge and Ideas	4	66%	66%	55%	11
Key Ideas and Details	10	80%	79%	68%	11
<b>Writing</b>	<b>10</b>	<b>57%</b>	<b>56%</b>	<b>31%</b>	<b>26</b>
Production and Distribution of Writing	10	57%	56%	31%	26



# ELA Grade 6

## Curriculum Standards Analysis - Students With Disabilities

Students w/ Disabilities Students (48)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	50%	49%	34%	16
<b>Question Type</b>					
Essay	16	38%	36%	19%	19
Selected Response	34	61%	60%	47%	14
<b>Domain / Cluster</b>					
<b>Language</b>	<b>13</b>	<b>56%</b>	<b>54%</b>	<b>37%</b>	<b>19</b>
Conventions of Standard English	8	53%	51%	31%	22
Vocabulary Acquisition and Use	5	63%	60%	48%	14
<b>Reading</b>	<b>27</b>	<b>60%</b>	<b>59%</b>	<b>47%</b>	<b>14</b>
Craft and Structure	13	59%	58%	46%	13
Integration of Knowledge and Ideas	4	51%	50%	38%	13
Key Ideas and Details	10	66%	65%	52%	14
<b>Writing</b>	<b>10</b>	<b>33%</b>	<b>32%</b>	<b>17%</b>	<b>16</b>
Production and Distribution of Writing	10	33%	32%	17%	16

# ELA Grade 6

## Curriculum Standards Analysis - High Needs

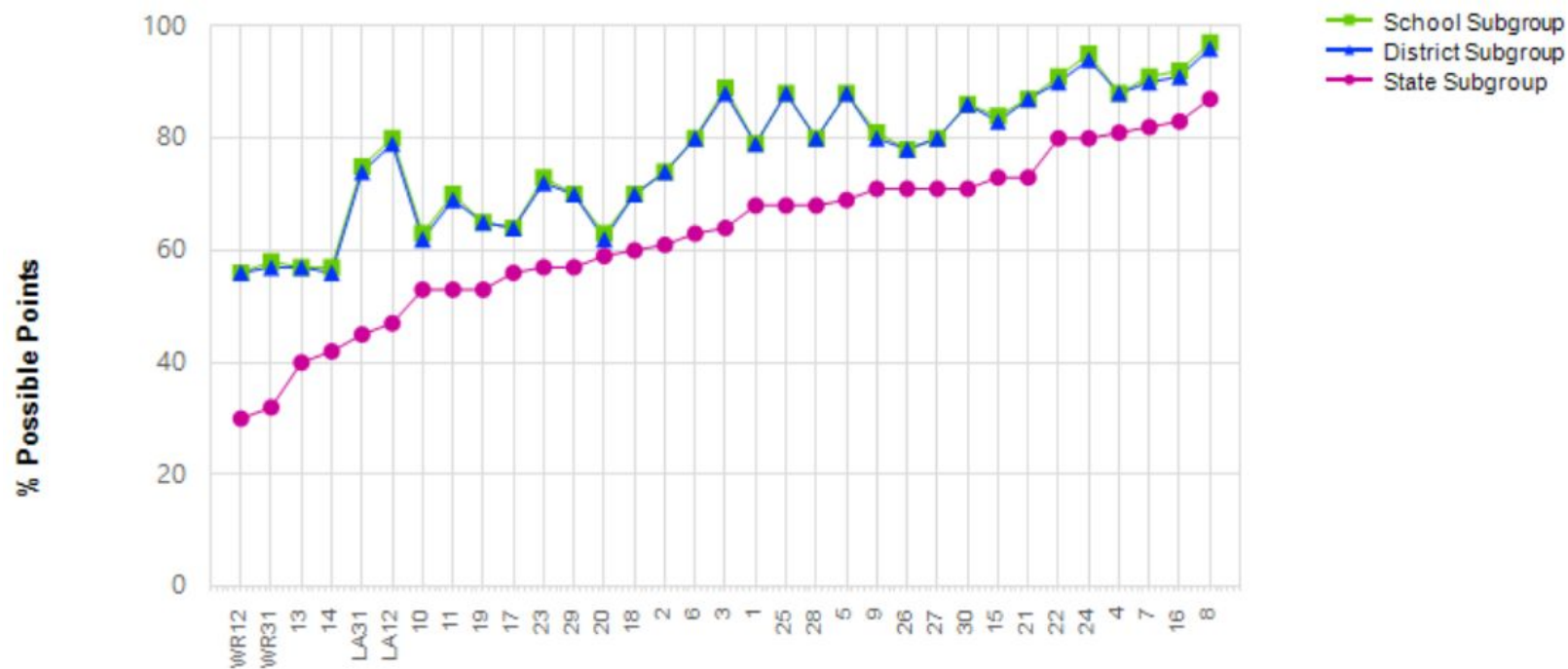
High Needs Students (66)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	55%	54%	43%	12
<b>Question Type</b>					
Essay	16	44%	42%	29%	15
Selected Response	34	65%	64%	56%	9
<b>Domain / Cluster</b>					
<b>Language</b>	<b>13</b>	<b>62%</b>	<b>60%</b>	<b>48%</b>	<b>14</b>
Conventions of Standard English	8	59%	57%	42%	16
Vocabulary Acquisition and Use	5	67%	66%	58%	9
<b>Reading</b>	<b>27</b>	<b>64%</b>	<b>63%</b>	<b>55%</b>	<b>9</b>
Craft and Structure	13	63%	62%	54%	9
Integration of Knowledge and Ideas	4	53%	53%	45%	8
Key Ideas and Details	10	69%	68%	60%	9
<b>Writing</b>	<b>10</b>	<b>38%</b>	<b>37%</b>	<b>25%</b>	<b>14</b>
Production and Distribution of Writing	10	38%	37%	25%	14

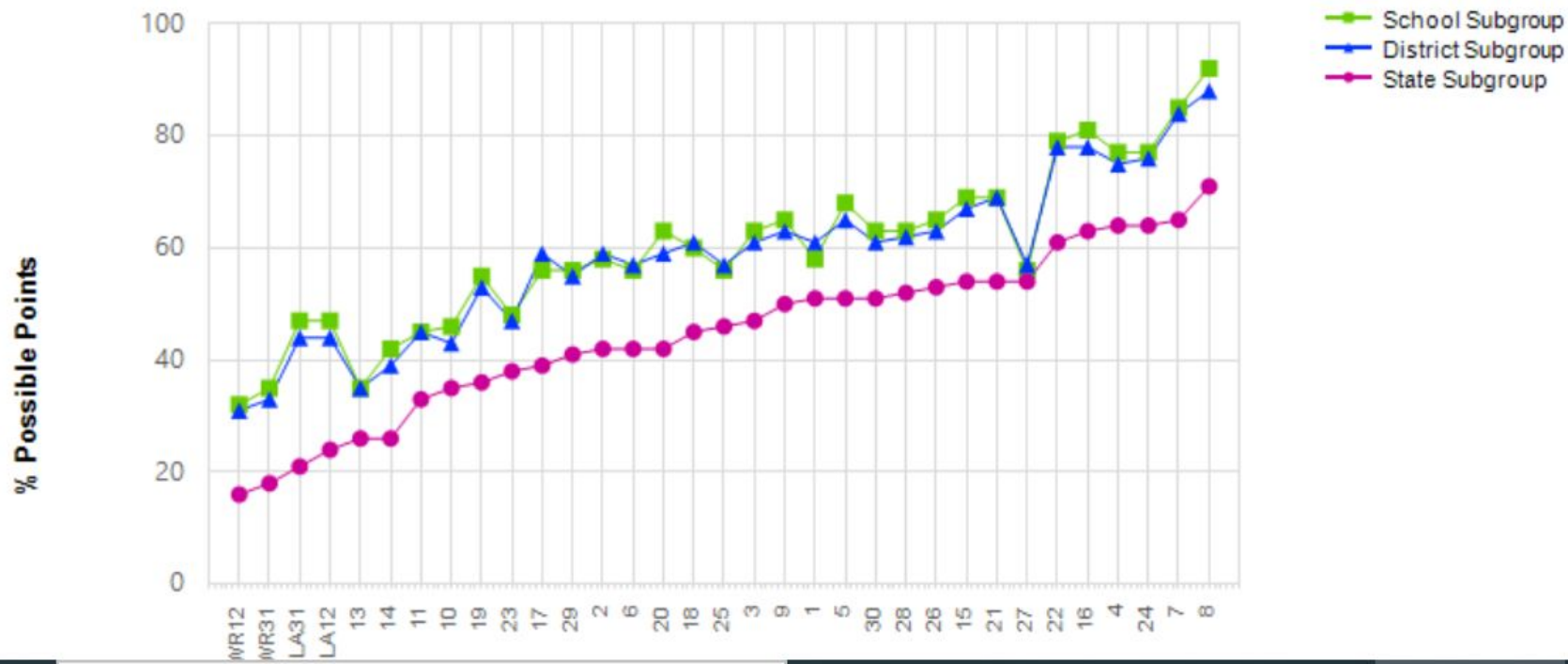
# ELA Grade 6

## Item Analysis - All Students



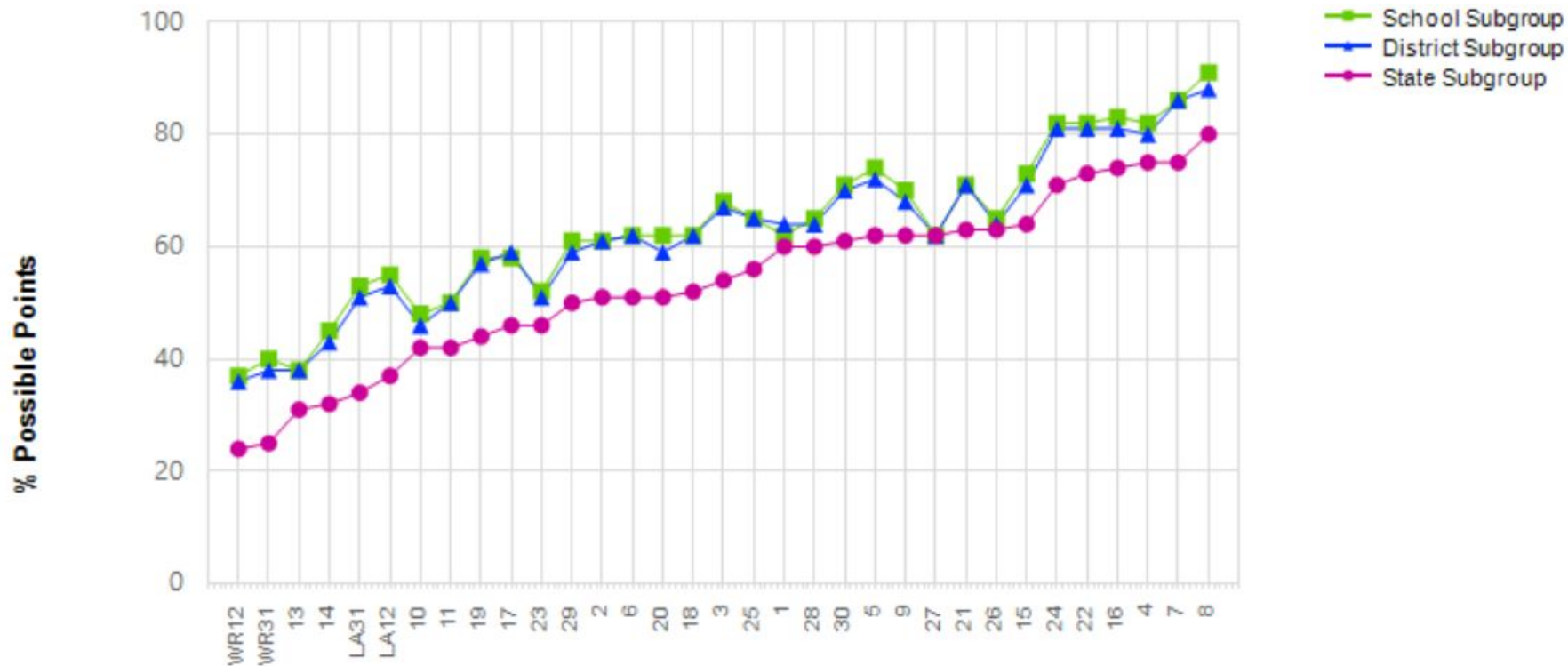
# ELA Grade 6

## Item Analysis - Students With Disabilities



# ELA Grade 6

## Item Analysis - High Needs



# ELA Grade 6 - Performance Summary

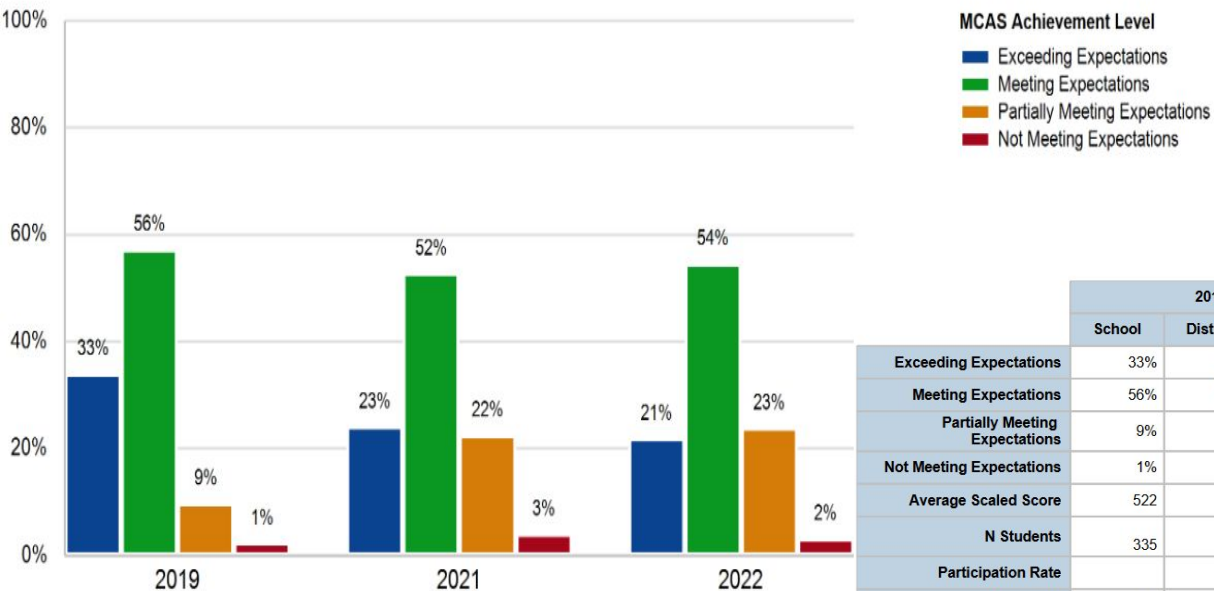
- 78% of ALL students Meeting/Exceeding for District; 41% of ALL students Meeting/Exceeding for State.
- Compared to the state, HMS Grade 6 ELA students as a whole performed 23% higher in the language domain, 12% higher in the reading domain, and a noteworthy 26% higher in the writing domain. They also performed ABOVE the state average on all 31 test items.
- Compared to the state, HMS Grade 6 ELA SWD performed 19% higher in the language domain, 14% higher in the reading domain, and 16% higher in the writing domain. This subgroup performed ABOVE the state average on all 31 test items.
- Compared to the state, HMS Grade 6 ELA HN students performed 14% higher in the language domain, 9% higher in the reading domain, and 14% higher in the writing domain. This subgroup performed ABOVE the state average on 30 of 31 test items. The most significant challenge area involved drawing an inference.

# Grade 7 ELA

# ELA Grade 7

## Achievement Distribution by Year - School

Student Group : All Students



	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	33%	33%	8%	23%	23%	6%	21%	21%	5%
Meeting Expectations	56%	56%	40%	52%	52%	37%	54%	53%	36%
Partially Meeting Expectations	9%	9%	38%	22%	22%	37%	23%	23%	40%
Not Meeting Expectations	1%	2%	13%	3%	4%	20%	2%	3%	19%
Average Scaled Score	522	522	499	515	514	494	512	512	493
N Students	335	340	71,185	314	320	67,604	257	260	67,872
Participation Rate				96%	96%	94%	98%	98%	98%
Mean SGP	58	58	50	52	52	36	52	52	50



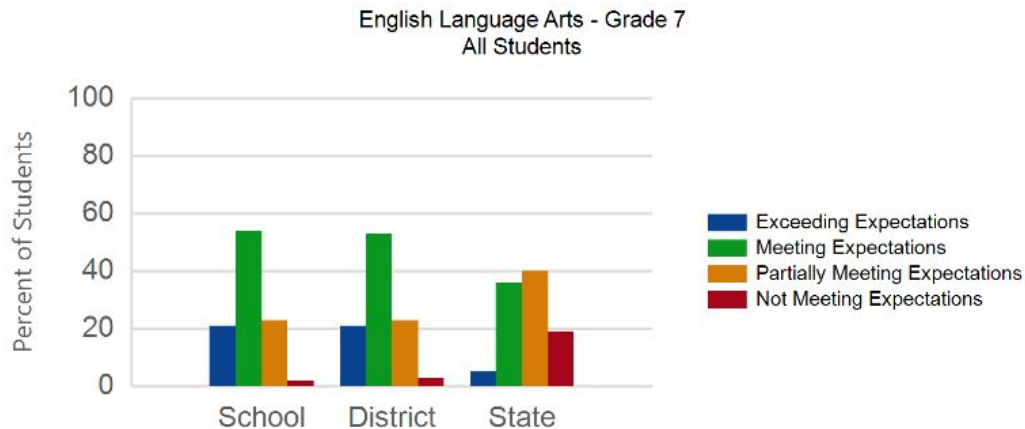
# ELA Grade 7

## Achievement Analysis - All Students

Participation Rate: 98%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	54	21	21	5
Meeting Expectations	138	54	53	36
Partially Meeting Expectations	59	23	23	40
Not Meeting Expectations	6	2	3	19
<b>Total Included</b>	<b>257</b>			

### All Students



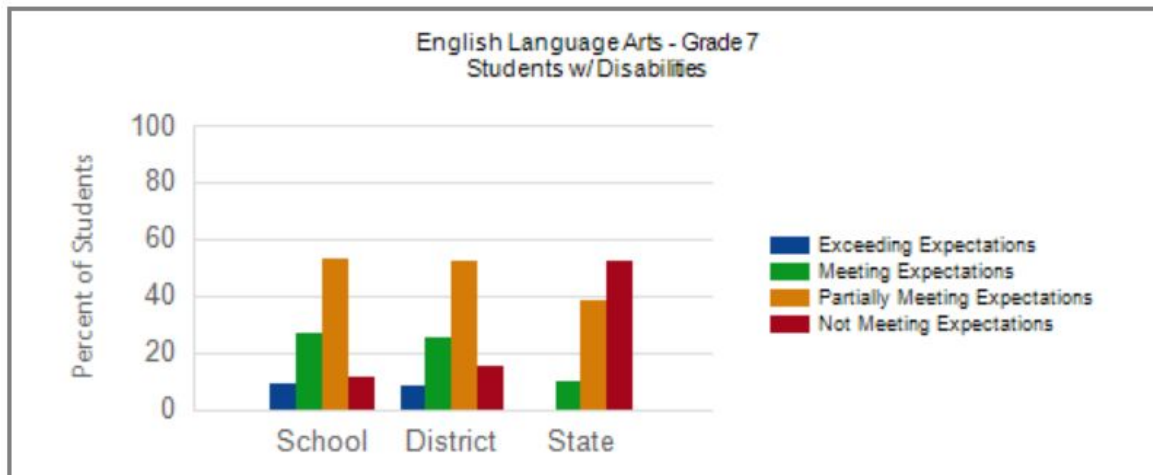
# ELA Grade 7

## Achievement Analysis - Students With Disabilities

### Students w/ Disabilities

Participation Rate: 100%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	4	9	8	0
Meeting Expectations	12	27	25	10
Partially Meeting Expectations	24	53	52	38
Not Meeting Expectations	5	11	15	52
<b>Total Included</b>	<b>45</b>			



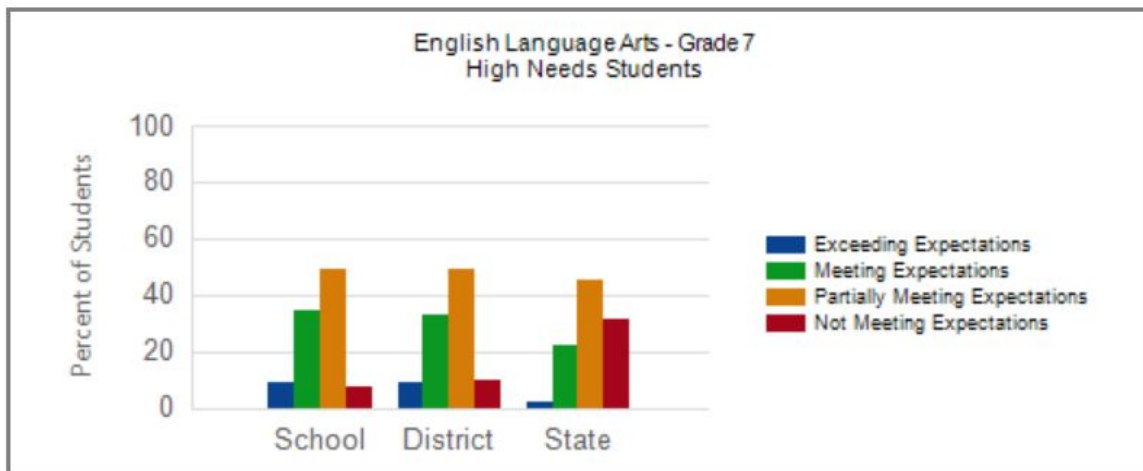
# ELA Grade 7

## Achievement Analysis - High Needs

Participation Rate: 99%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	6	9	9	2
Meeting Expectations	23	34	33	22
Partially Meeting Expectations	33	49	49	45
Not Meeting Expectations	5	7	10	31
<b>Total Included</b>	<b>67</b>			

### High Needs Students



# ELA Grade 7

## Curriculum Standards Analysis - All Students

All Students (257)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	71%	71%	53%	18
<b>Question Type</b>					
Essay	16	67%	66%	41%	25
Selected Response	34	75%	75%	63%	12
<b>Domain / Cluster</b>					
<b>Language</b>	<b>11</b>	<b>81%</b>	<b>81%</b>	<b>60%</b>	<b>21</b>
Conventions of Standard English	8	82%	81%	56%	26
Vocabulary Acquisition and Use	3	80%	79%	71%	8
<b>Reading</b>	<b>29</b>	<b>74%</b>	<b>74%</b>	<b>62%</b>	<b>12</b>
Craft and Structure	12	72%	72%	59%	13
Integration of Knowledge and Ideas	3	66%	66%	57%	9
Key Ideas and Details	14	78%	78%	66%	12
<b>Writing</b>	<b>10</b>	<b>57%</b>	<b>57%</b>	<b>35%</b>	<b>23</b>
Production and Distribution of Writing	10	57%	57%	35%	23

# ELA Grade 7

## Curriculum Standards Analysis - Students With Disabilities

Students w/ Disabilities Students (45)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	54%	53%	34%	20
<b>Question Type</b>					
Essay	16	48%	47%	22%	26
Selected Response	34	59%	58%	46%	13
<b>Domain / Cluster</b>					
<b>Language</b>	<b>11</b>	<b>62%</b>	<b>60%</b>	<b>39%</b>	<b>23</b>
Conventions of Standard English	8	60%	58%	33%	28
Vocabulary Acquisition and Use	3	65%	63%	54%	11
<b>Reading</b>	<b>29</b>	<b>58%</b>	<b>58%</b>	<b>45%</b>	<b>13</b>
Craft and Structure	12	54%	54%	42%	12
Integration of Knowledge and Ideas	3	56%	55%	43%	14
Key Ideas and Details	14	62%	61%	48%	14
<b>Writing</b>	<b>10</b>	<b>41%</b>	<b>40%</b>	<b>19%</b>	<b>22</b>
Production and Distribution of Writing	10	41%	40%	19%	22

# ELA Grade 7

## Curriculum Standards Analysis - High Needs

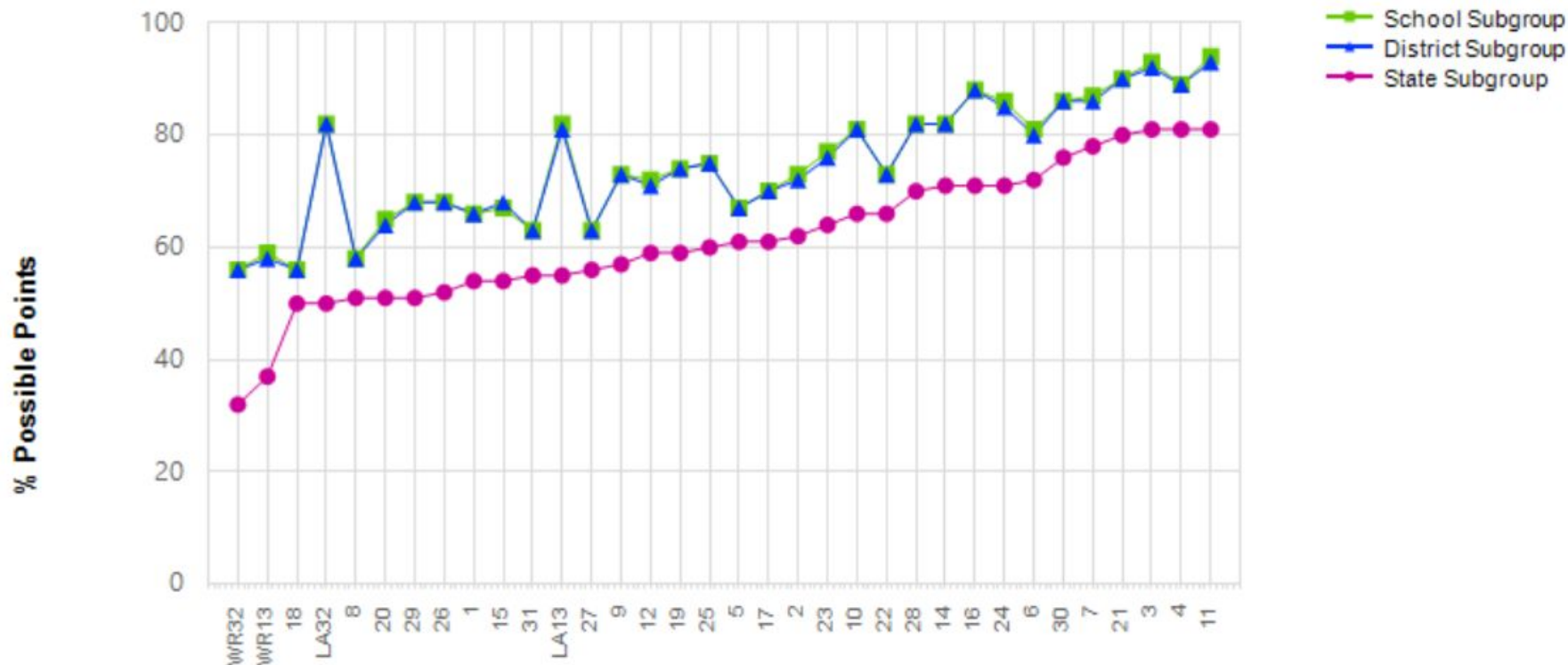
High Needs Students (67)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	57%	56%	44%	13
<b>Question Type</b>					
Essay	16	53%	52%	33%	20
Selected Response	34	61%	61%	55%	7
<b>Domain / Cluster</b>					
<b>Language</b>	<b>11</b>	<b>66%</b>	<b>65%</b>	<b>50%</b>	<b>16</b>
Conventions of Standard English	8	66%	65%	45%	21
Vocabulary Acquisition and Use	3	66%	65%	63%	3
<b>Reading</b>	<b>29</b>	<b>61%</b>	<b>60%</b>	<b>54%</b>	<b>7</b>
Craft and Structure	12	58%	58%	50%	8
Integration of Knowledge and Ideas	3	56%	56%	50%	6
Key Ideas and Details	14	64%	64%	57%	7
<b>Writing</b>	<b>10</b>	<b>44%</b>	<b>43%</b>	<b>28%</b>	<b>17</b>
Production and Distribution of Writing	10	44%	43%	28%	17

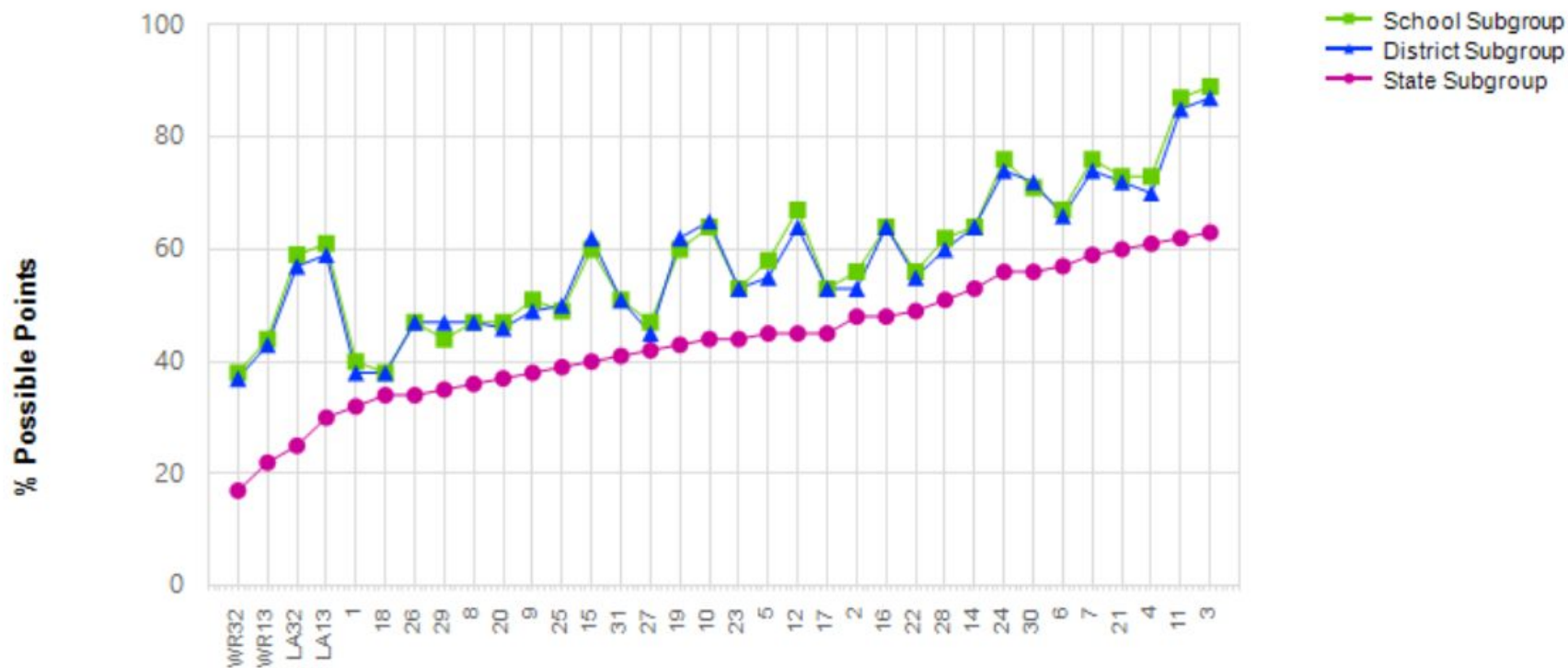
# ELA Grade 7

## Item Analysis - All Students



# ELA Grade 7

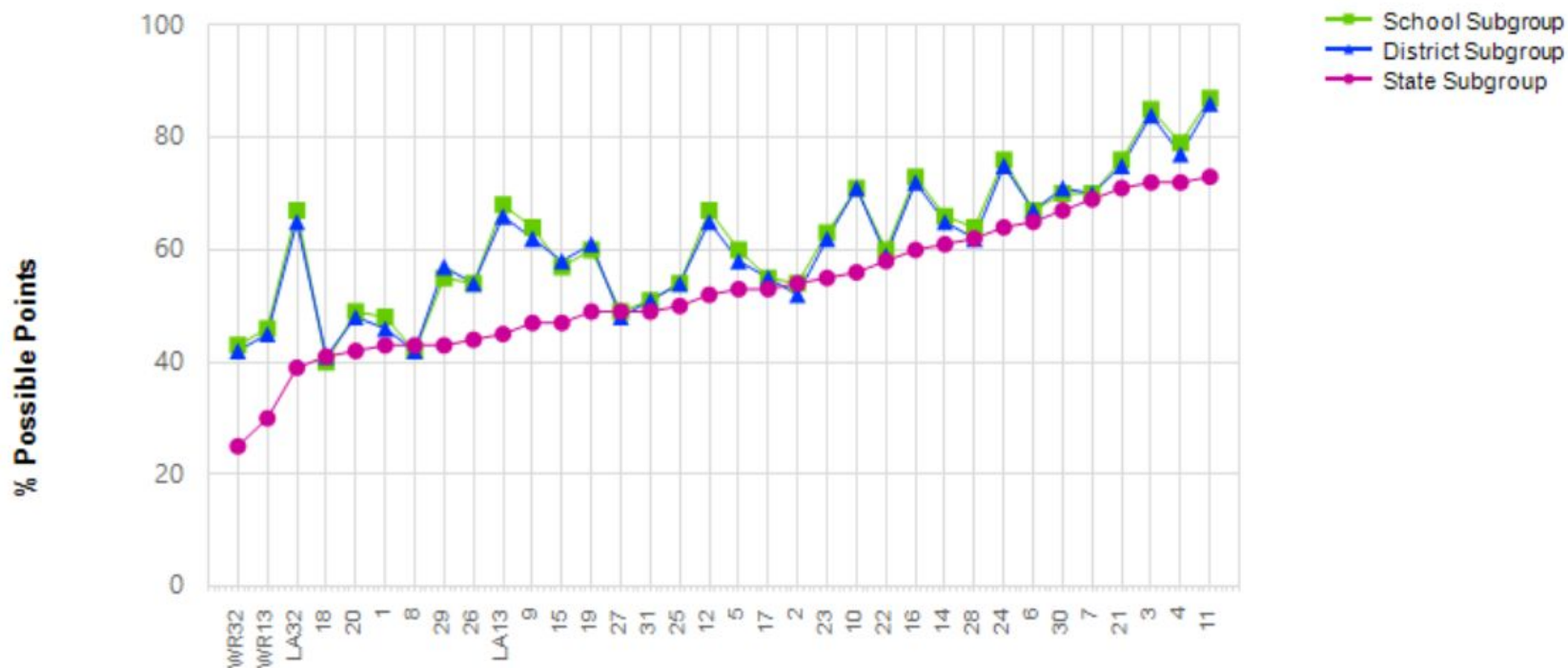
## Item Analysis - Students With Disabilities





# ELA Grade 7

## Item Analysis - High Needs



# ELA Grade 7 - Performance Summary

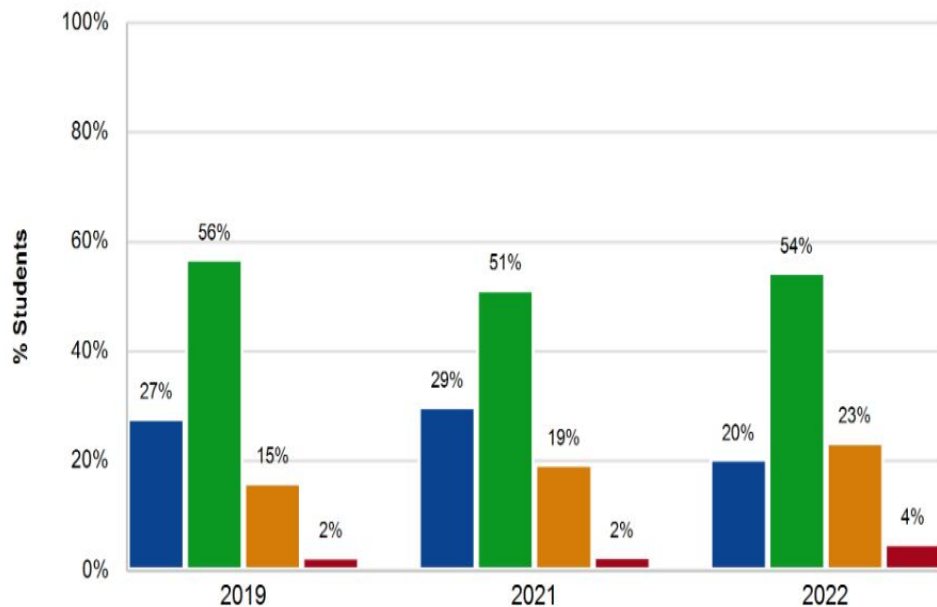
- 75% of ALL students Meeting/Exceeding for District; 41% of ALL students Meeting/Exceeding for State.
- Compared to the state, HMS Grade 7 ELA students as a whole performed 21% higher in the language domain, 12% higher in the reading domain, and a noteworthy 23% higher in the writing domain. They also performed ABOVE the state average on all 32 test items.
- Compared to the state, HMS Grade 7 ELA SWD performed 23% higher in the language domain, 13% higher in the reading domain, and 22% higher in the writing domain. This subgroup performed ABOVE the state average on all 32 test items.
- Compared to the state, HMS Grade 7 ELA HN students performed 16% higher in the language domain, 7% higher in the reading domain, and 17% higher in the writing domain. This subgroup performed ABOVE the state average on 28 of 32 test items. The most significant challenge areas involved drawing an inference and analyzing sentence structure.

# Grade 8 ELA

# ELA Grade 8

## Achievement Distribution by Year - School

Student Group : All Students



### MCAS Achievement Level

- Exceeding Expectations
- Meeting Expectations
- Partially Meeting Expectations
- Not Meeting Expectations

	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	27%	27%	11%	29%	29%	6%	20%	19%	7%
Meeting Expectations	56%	55%	40%	51%	49%	34%	54%	52%	35%
Partially Meeting Expectations	15%	15%	35%	19%	18%	41%	23%	24%	40%
Not Meeting Expectations	2%	3%	14%	2%	4%	18%	4%	5%	18%
Average Scaled Score	517	517	500	520	519	495	512	512	494
N Students	348	353	70,767	285	293	67,552	287	295	70,160
Participation Rate				99%	99%	93%	97%	97%	98%
Mean SGP	56	56	50	44	44	35	53	53	50

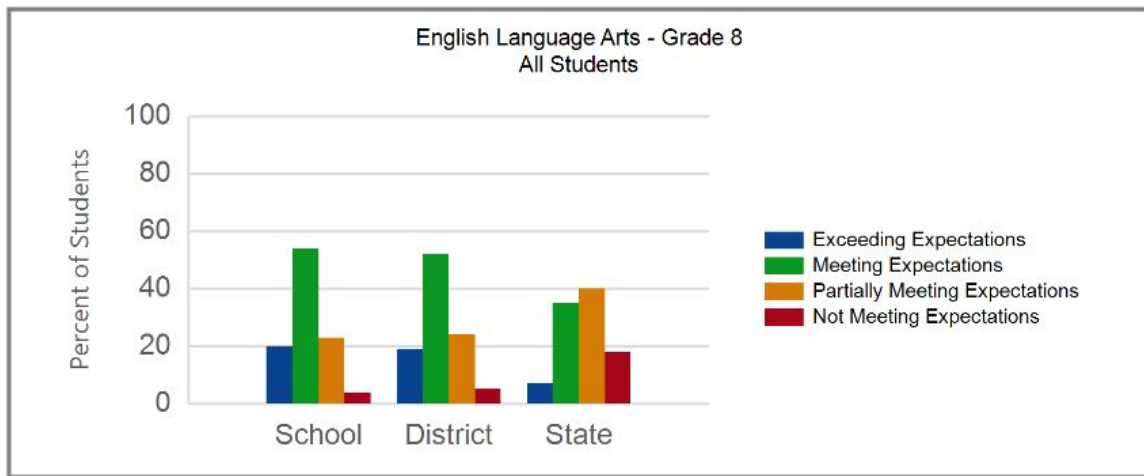
# ELA Grade 8

## Achievement Analysis - All Students

Participation Rate: 97%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	56	20	19	7
Meeting Expectations	154	54	52	35
Partially Meeting Expectations	65	23	24	40
Not Meeting Expectations	12	4	5	18
<b>Total Included</b>	<b>287</b>			

### All Students



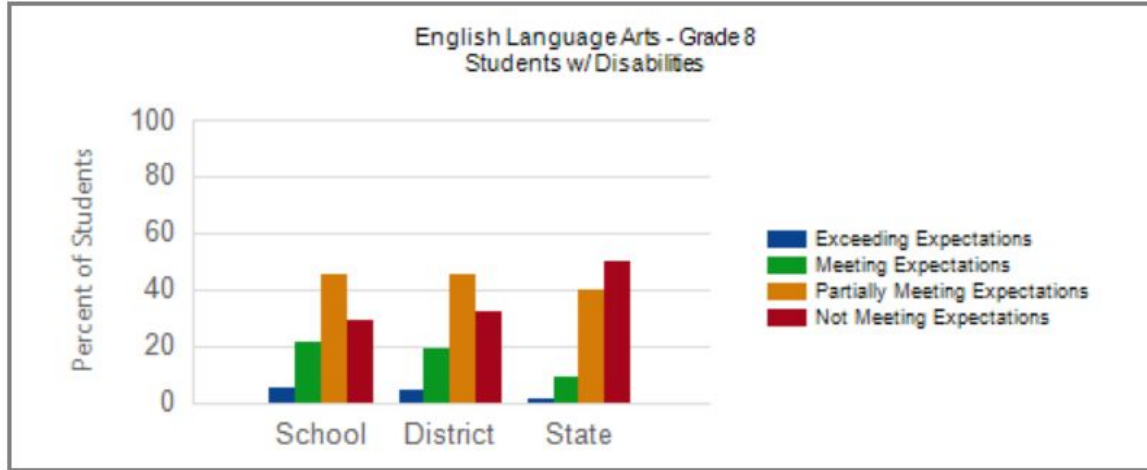
# ELA Grade 8

## Achievement Analysis - Students With Disabilities

### Students w/ Disabilities

Participation Rate: 98%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	2	5	4	1
Meeting Expectations	9	21	19	9
Partially Meeting Expectations	19	45	45	40
Not Meeting Expectations	12	29	32	50
<b>Total Included</b>	<b>42</b>			



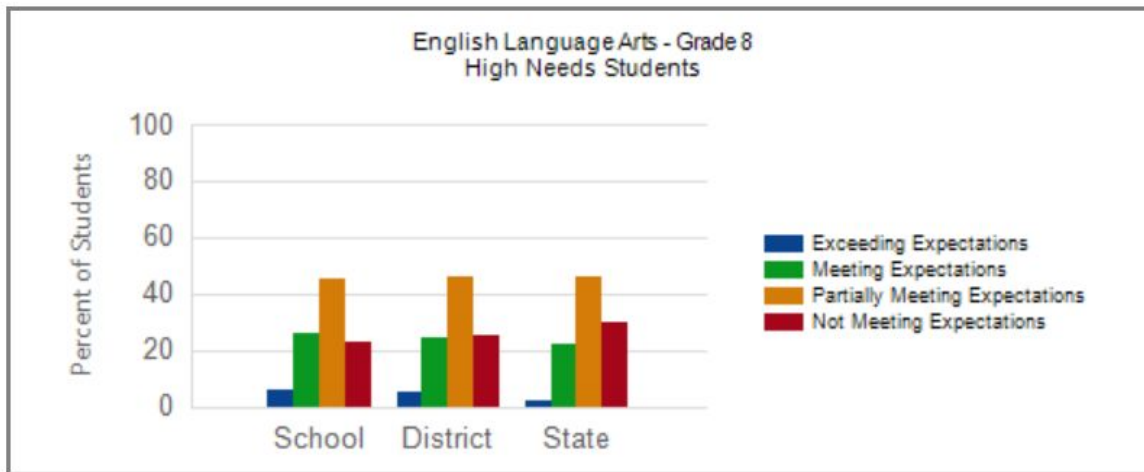
# ELA Grade 8

## Achievement Analysis - High Needs

### High Needs Students

Participation Rate: 98%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	3	6	5	2
Meeting Expectations	14	26	24	22
Partially Meeting Expectations	24	45	46	46
Not Meeting Expectations	12	23	25	30
<b>Total Included</b>	<b>53</b>			



# ELA Grade 8

## Curriculum Standards Analysis - All Students

All Students (284)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	76%	75%	59%	17
<b>Question Type</b>					
Essay	16	72%	71%	46%	26
Selected Response	34	79%	79%	72%	8
<b>Domain / Cluster</b>					
<b>Language</b>	<b>12</b>	<b>83%</b>	<b>83%</b>	<b>66%</b>	<b>17</b>
Conventions of Standard English	7	86%	85%	61%	25
Knowledge of Language	1	92%	92%	83%	9
Vocabulary Acquisition and Use	4	76%	76%	70%	6
<b>Reading</b>	<b>28</b>	<b>79%</b>	<b>79%</b>	<b>71%</b>	<b>8</b>
Craft and Structure	11	77%	77%	69%	8
Key Ideas and Details	17	81%	81%	73%	8
<b>Writing</b>	<b>10</b>	<b>63%</b>	<b>62%</b>	<b>38%</b>	<b>25</b>
Production and Distribution of Writing	10	63%	62%	38%	25



# ELA Grade 8

## Curriculum Standards Analysis - Students With Disabilities

Students w/ Disabilities Students (39)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	53%	53%	40%	13
<b>Question Type</b>					
Essay	16	41%	39%	24%	17
Selected Response	34	65%	65%	55%	10
<b>Domain / Cluster</b>					
<b>Language</b>	<b>12</b>	<b>60%</b>	<b>59%</b>	<b>44%</b>	<b>16</b>
Conventions of Standard English	7	53%	51%	35%	19
Knowledge of Language	1	85%	84%	70%	15
Vocabulary Acquisition and Use	4	65%	65%	53%	13
<b>Reading</b>	<b>28</b>	<b>64%</b>	<b>65%</b>	<b>55%</b>	<b>9</b>
Craft and Structure	11	61%	61%	52%	10
Key Ideas and Details	17	66%	67%	57%	9
<b>Writing</b>	<b>10</b>	<b>35%</b>	<b>33%</b>	<b>20%</b>	<b>16</b>
Production and Distribution of Writing	10	35%	33%	20%	16

# ELA Grade 8

## Curriculum Standards Analysis - High Needs

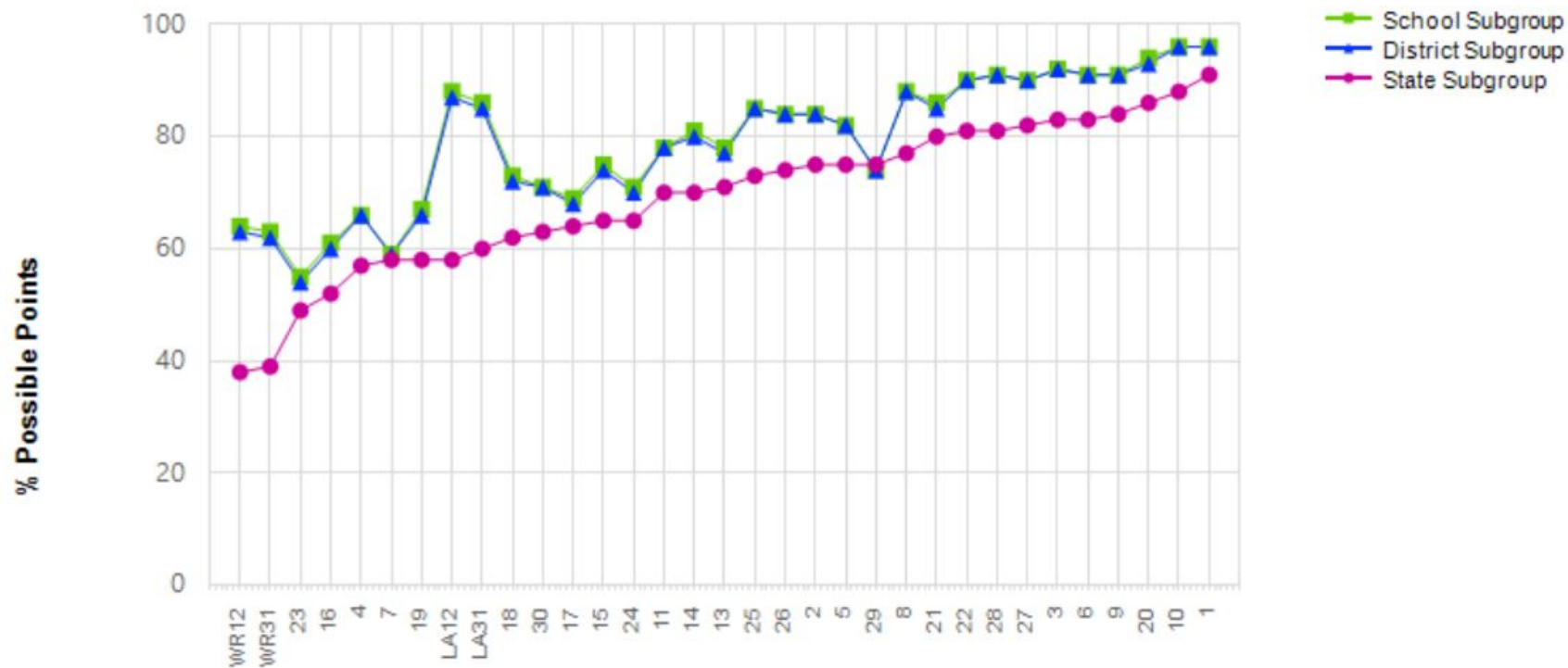
High Needs Students (50)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	50	58%	56%	51%	7
<b>Question Type</b>					
Essay	16	48%	45%	36%	12
Selected Response	34	67%	66%	64%	3
<b>Domain / Cluster</b>					
<b>Language</b>	<b>12</b>	<b>65%</b>	<b>63%</b>	<b>56%</b>	<b>9</b>
Conventions of Standard English	7	60%	58%	50%	10
Knowledge of Language	1	86%	85%	78%	8
Vocabulary Acquisition and Use	4	69%	67%	62%	7
<b>Reading</b>	<b>28</b>	<b>66%</b>	<b>66%</b>	<b>64%</b>	<b>2</b>
Craft and Structure	11	63%	62%	61%	2
Key Ideas and Details	17	68%	68%	66%	2
<b>Writing</b>	<b>10</b>	<b>41%</b>	<b>39%</b>	<b>30%</b>	<b>11</b>
Production and Distribution of Writing	10	41%	39%	30%	11

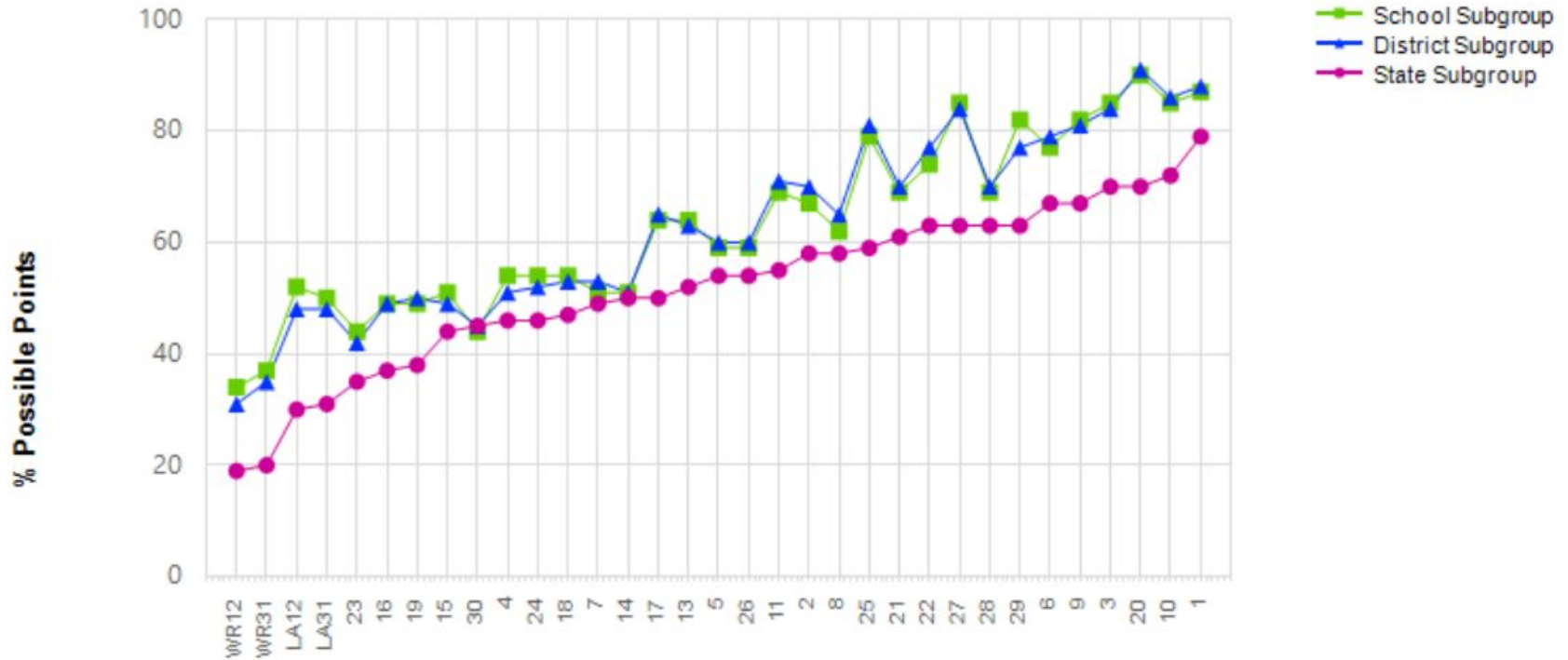
# ELA Grade 8

## Item Analysis - All Students



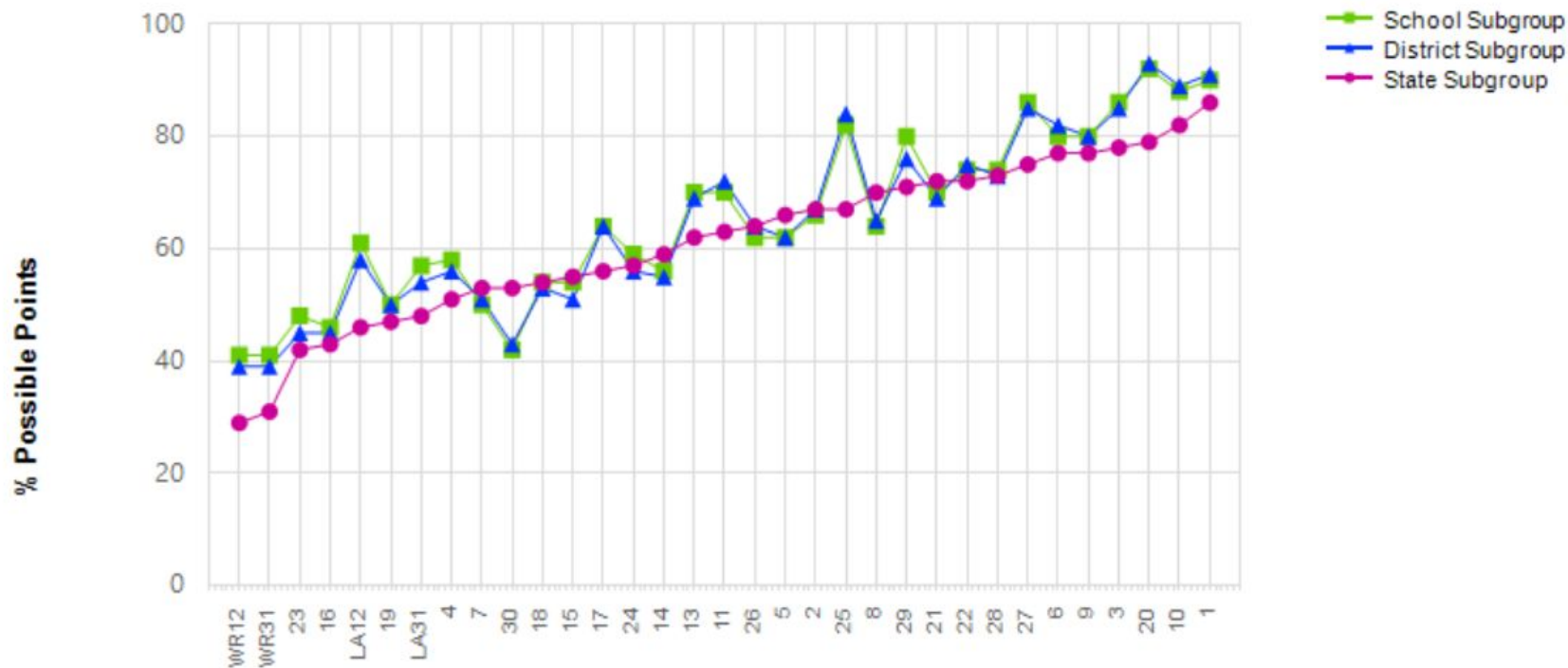
# ELA Grade 8

## Item Analysis - Students With Disabilities



# ELA Grade 8

## Item Analysis - High Needs



# ELA Grade 8 - Performance Summary

- 74% of ALL students Meeting/Exceeding for District; 42% of ALL students Meeting/Exceeding for State.
- Compared to the state, HMS Grade 8 ELA students as a whole performed 17% higher in the language domain, 8% higher in the reading domain, and a noteworthy 25% higher in the writing domain. They also performed ABOVE the state average on 30 of 31 test items. Challenge area included making a comparison across passages.
- Compared to the state, HMS Grade 8 ELA SWD performed 16% higher in the language domain, 9% higher in the reading domain, and 16% higher in the writing domain. This subgroup performed ABOVE the state average on 30 of 31 test items. Challenge area included identifying differences in character attitudes.
- Compared to the state, HMS Grade 8 ELA HN students performed 9% higher in the language domain, 2% higher in the reading domain, and 11% higher in the writing domain. This subgroup performed ABOVE the state average on 21 of 31 test items. The most significant challenge areas involved identifying symbolic images, comparing characters' attitudes and experiences across passages.

# Middle School ELA Action Steps

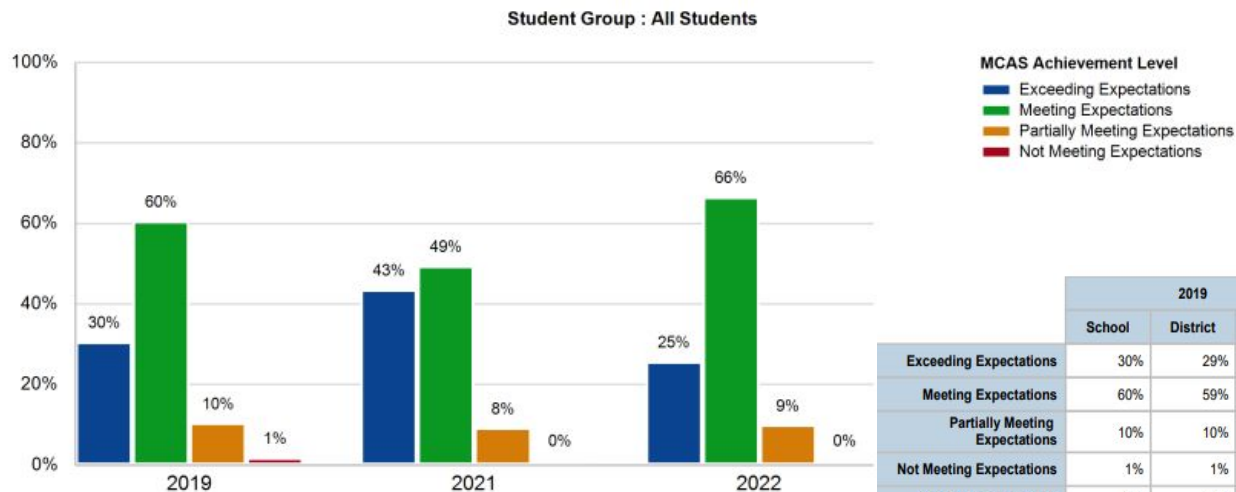
- Prioritize building MTSS efficacy in grades 6-8 through Tier 2 interventions provided by Reading Lab courses and other supports.
- Train reading specialists in *Keys to Literacy* strategies to initiate push-in coaching support, especially in the areas of academic vocabulary and comprehension.
- Collaborate with special educators, reading specialists, and interventionists to review MCAS data and plan strategies for remediating subgroups' challenge areas.
- Expand access for push-in support from writing specialist to accommodate all class periods.
- Continue vertical articulation of a grammar program targeting grade-level language standards.
- Implement literature circles that generate interest in independent reading while targeting key academic standards.

# Grade 10 ELA



# ELA Grade 10

## Achievement Distribution by Year - School



	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	30%	29%	13%	43%	42%	19%	25%	25%	9%
Meeting Expectations	60%	59%	48%	49%	48%	45%	66%	65%	49%
Partially Meeting Expectations	10%	10%	31%	8%	8%	27%	9%	9%	34%
Not Meeting Expectations	1%	1%	8%	0%	1%	9%	0%	1%	8%
Average Scaled Score	522	522	506	527	527	507	520	520	503
N Students	313	319	70,815	323	330	64,305	286	289	67,396
Participation Rate				98%	99%	90%	99%	99%	98%
Mean SGP	64	64	49	64	64	53	52	52	50

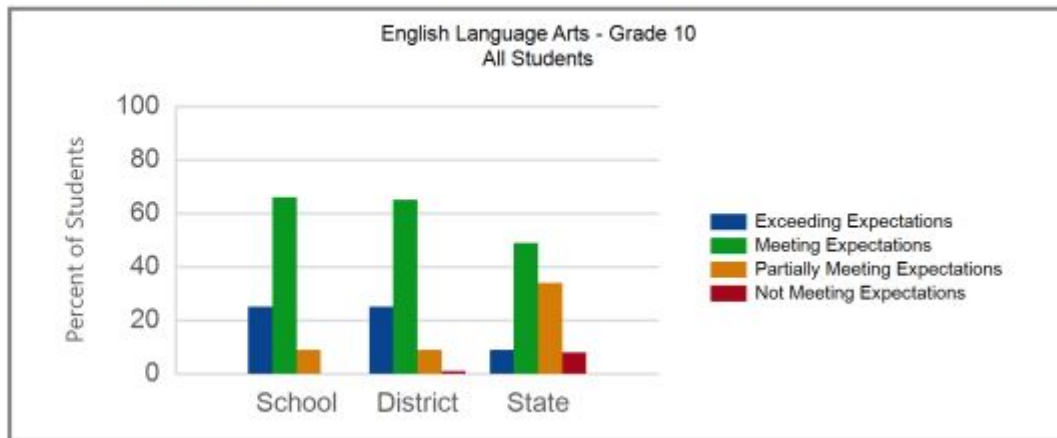
# ELA Grade 10

## Achievement Analysis - All Students

Participation Rate: 99%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	71	25	25	9
Meeting Expectations	188	66	65	49
Partially Meeting Expectations	26	9	9	34
Not Meeting Expectations	1	0	1	8
<b>Total Included</b>	<b>286</b>			

### All Students



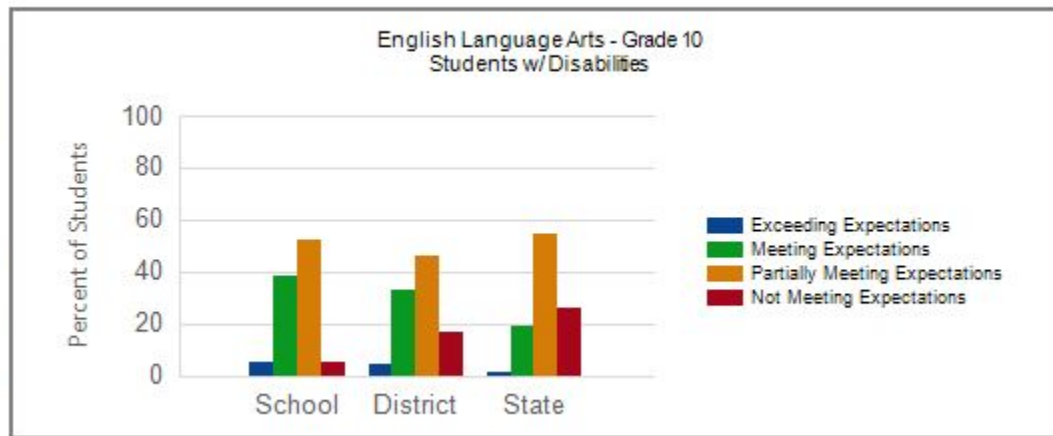
# ELA Grade 10

## Achievement Analysis - Students With Disabilities

### Students w/ Disabilities

Participation Rate: 100%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	1	5	4	1
Meeting Expectations	8	38	33	19
Partially Meeting Expectations	11	52	46	54
Not Meeting Expectations	1	5	17	26
Total Included	21			



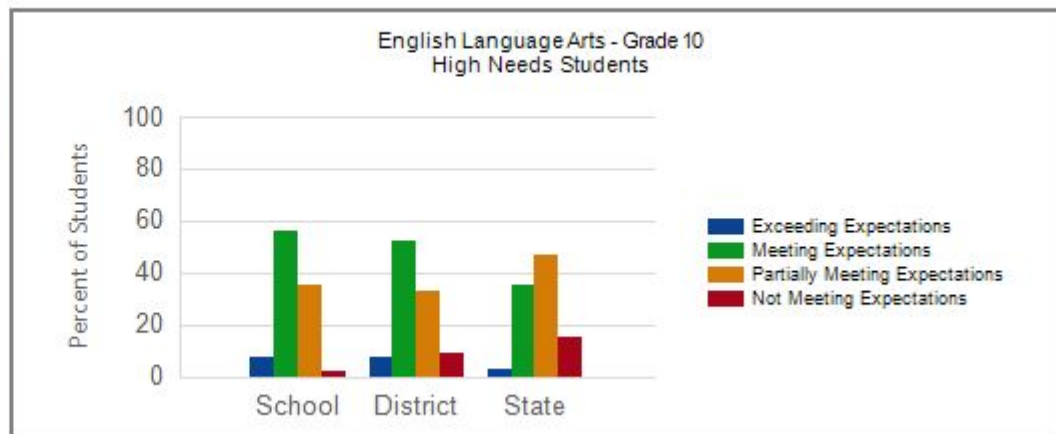
# ELA Grade 10

## Achievement Analysis - High Needs

Participation Rate: 100%

English Language Arts	N Students Included	% School	% District	% State
Exceeding Expectations	3	7	7	3
Meeting Expectations	24	56	52	35
Partially Meeting Expectations	15	35	33	47
Not Meeting Expectations	1	2	9	15
Total Included	43			

### High Needs Students



# ELA Grade 10

## Curriculum Standards Analysis - All Students

All Students (286)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	51	85%	85%	71%	14
<b>Question Type</b>					
Essay	16	82%	82%	62%	20
Selected Response	35	86%	86%	75%	10
<b>Domain / Cluster</b>					
<b>Language</b>	<b>11</b>	<b>95%</b>	<b>95%</b>	<b>80%</b>	<b>15</b>
Conventions of Standard English	8	95%	95%	78%	17
Vocabulary Acquisition and Use	3	95%	95%	86%	10
<b>Reading</b>	<b>30</b>	<b>84%</b>	<b>84%</b>	<b>74%</b>	<b>11</b>
Craft and Structure	10	81%	81%	72%	10
Integration of Knowledge and Ideas	4	86%	86%	78%	9
Key Ideas and Details	16	86%	86%	75%	11
<b>Writing</b>	<b>10</b>	<b>73%</b>	<b>73%</b>	<b>52%</b>	<b>21</b>
Production and Distribution of Writing	10	73%	73%	52%	21

# ELA Grade 10

## Curriculum Standards Analysis - Students With Disabilities

Students w/ Disabilities Students (21)

Standards: MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	51	68%	68%	55%	13
<b>Question Type</b>					
Essay	16	63%	63%	41%	22
Selected Response	35	71%	71%	61%	10
<b>Domain / Cluster</b>					
<b>Language</b>	<b>11</b>	<b>81%</b>	<b>81%</b>	<b>61%</b>	<b>20</b>
Conventions of Standard English	8	80%	80%	57%	23
Vocabulary Acquisition and Use	3	84%	84%	72%	12
<b>Reading</b>	<b>30</b>	<b>69%</b>	<b>69%</b>	<b>59%</b>	<b>9</b>
Craft and Structure	10	63%	63%	58%	5
Integration of Knowledge and Ideas	4	68%	68%	63%	5
Key Ideas and Details	16	72%	72%	59%	13
<b>Writing</b>	<b>10</b>	<b>53%</b>	<b>53%</b>	<b>34%</b>	<b>20</b>
Production and Distribution of Writing	10	53%	53%	34%	20

# ELA Grade 10

## Curriculum Standards Analysis - High Needs

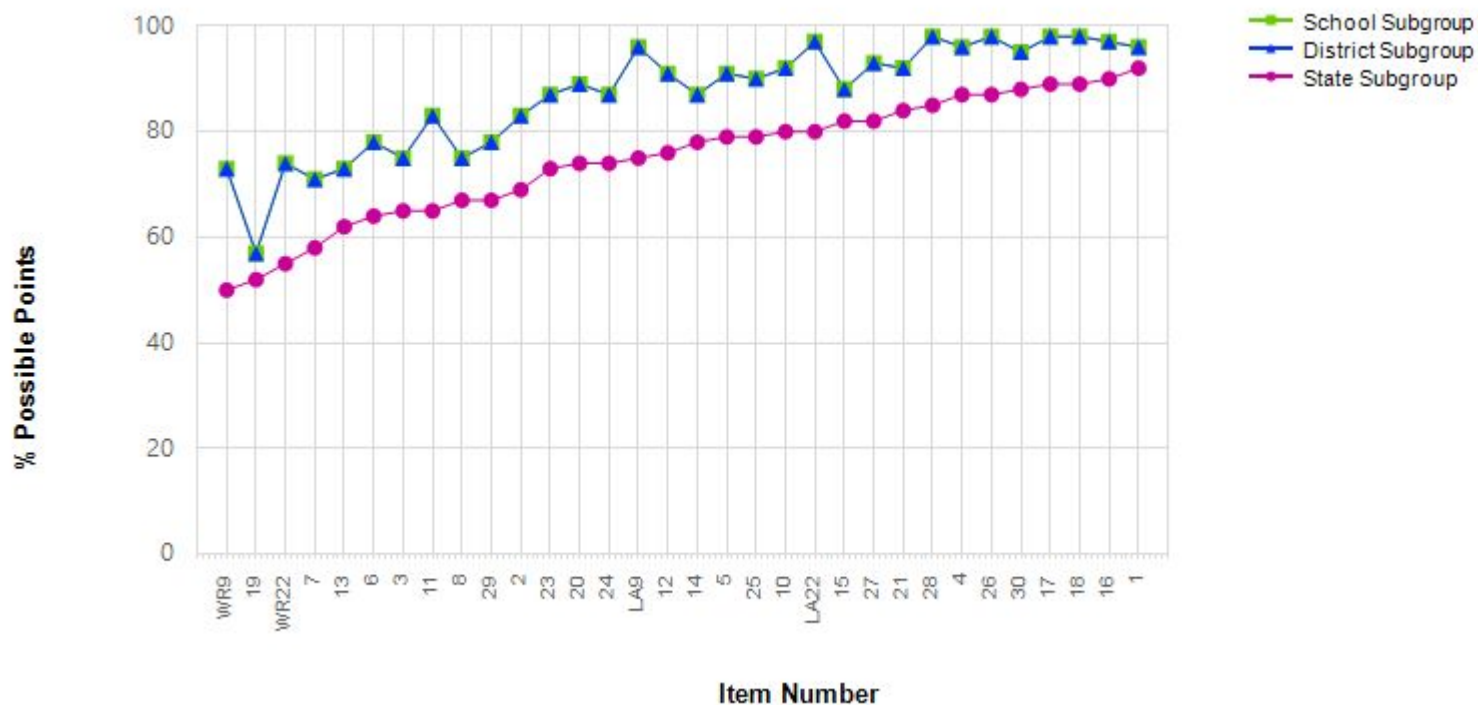
**High Needs Students (43)**

**Standards:** MA 2017 Standards Show results with <10 students: No

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>English Language Arts</b>					
All items	51	75%	75%	63%	12
<b>Question Type</b>					
Essay	16	70%	70%	52%	18
Selected Response	35	77%	77%	67%	10
<b>Domain / Cluster</b>					
<b>Language</b>	<b>11</b>	<b>87%</b>	<b>87%</b>	<b>71%</b>	<b>16</b>
Conventions of Standard English	8	86%	86%	68%	18
Vocabulary Acquisition and Use	3	88%	88%	79%	9
<b>Reading</b>	<b>30</b>	<b>75%</b>	<b>75%</b>	<b>66%</b>	<b>9</b>
Craft and Structure	10	73%	73%	64%	8
Integration of Knowledge and Ideas	4	77%	77%	69%	8
Key Ideas and Details	16	77%	77%	66%	10
<b>Writing</b>	<b>10</b>	<b>60%</b>	<b>60%</b>	<b>43%</b>	<b>17</b>
Production and Distribution of Writing	10	60%	60%	43%	17

# ELA Grade 10

## Item Analysis - All Students

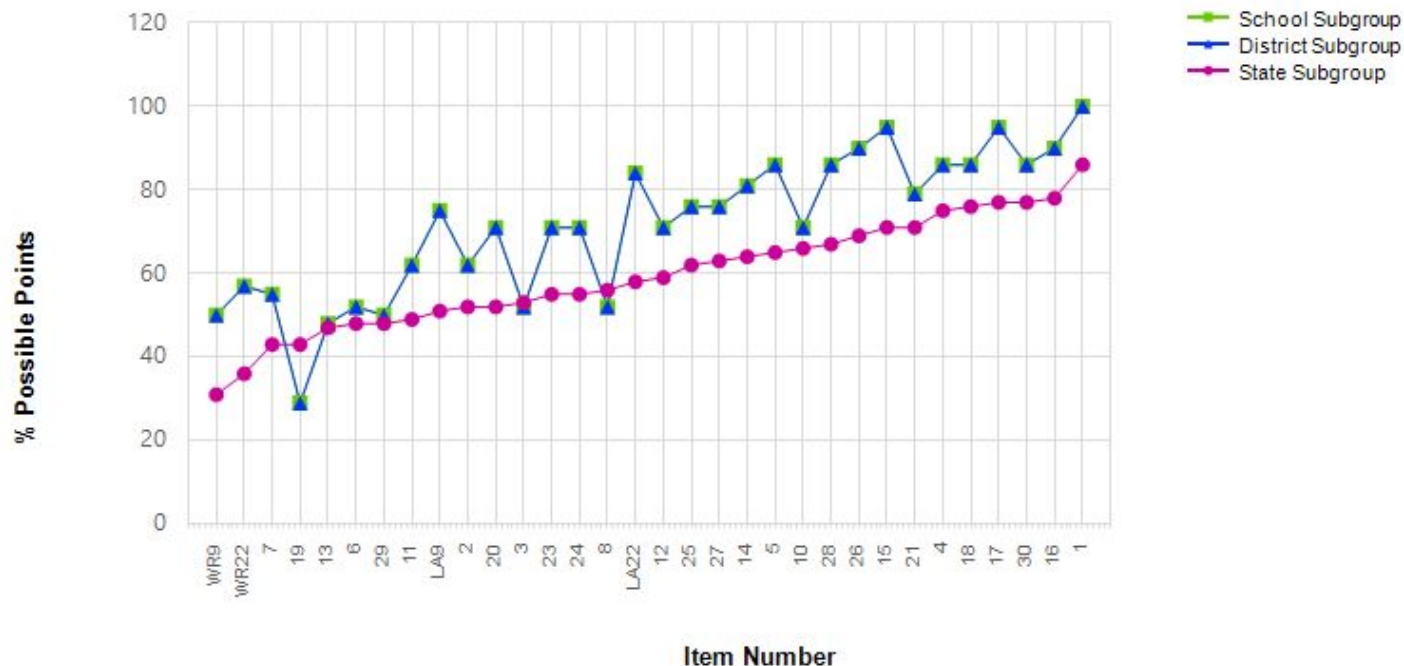




# ELA Grade 10

## Item Analysis - Students With Disabilities

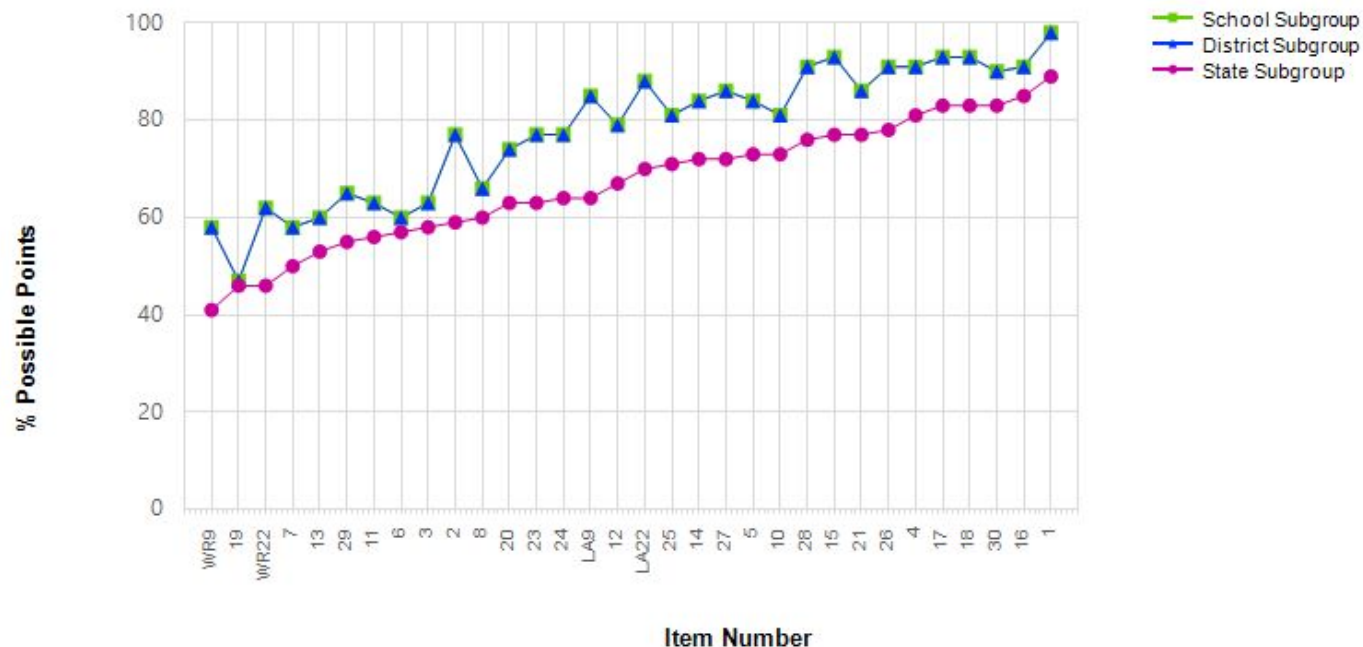
Students w/ Disabilities: 21



# ELA Grade 10

## Item Analysis - High Needs

High Needs Students: 43



# ELA Grade 10 - Performance Summary

- 91% of ALL students Meeting/Exceeding for District; 58% of ALL students Meeting/Exceeding for State.
- Compared to the state, HHS Grade 10 ELA students as a whole performed 15% higher in the language domain, 11% higher in the reading domain, and a noteworthy 21% higher in the writing domain. They also performed ABOVE the state average on all 30 test items.
- Compared to the state, HHS Grade 10 ELA SWD performed 20% higher in the language domain, 9% higher in the reading domain, and 20% higher in the writing domain. This subgroup performed ABOVE the state average on 27 of 30 test items. The most significant challenge areas included determining tone and comparing paragraph function across two different texts.
- Compared to the state, HHS Grade 10 ELA HN students performed 16% higher in the language domain, 9% higher in the reading domain, and 17% higher in the writing domain. This subgroup performed ABOVE the state average on all 30 test items.

# High School ELA Action Steps

- Maintain robust writing program requiring 15 pieces of writing per year, representing an array of modes, purposes, and lengths.
- Maintain reading selections that demand proficiency with a representative range of text complexity.
- Collaborate with special educators and reading specialist to review MCAS data and plan strategies for remediating subgroups' challenge areas.
- Continue vertical articulation of a grammar program targeting grade-level language standards.
- Expand implementation of literature circles that generate interest in independent reading while targeting key academic standards.

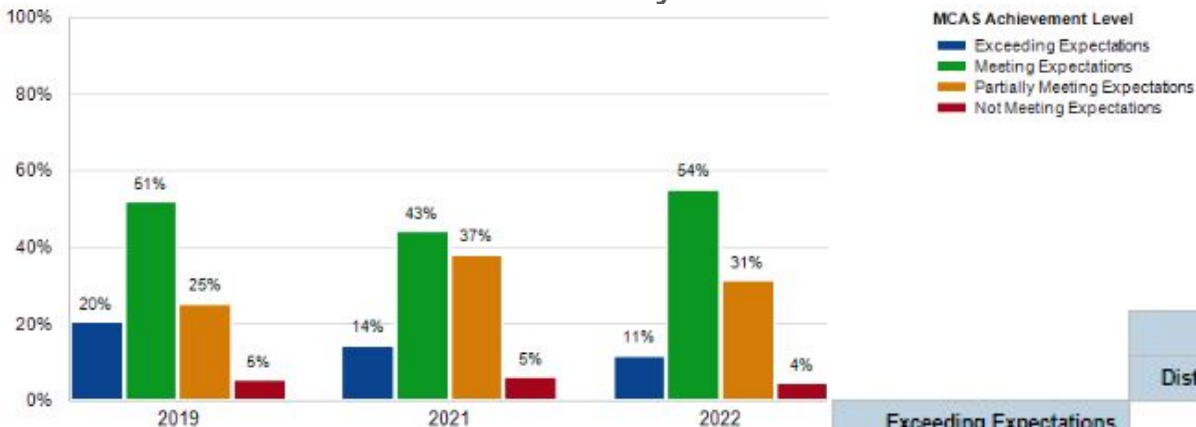
# Math MCAS Data

SPRING 2022

# Grade 3 Math

# Math Grade 3

## Achievement Distribution by Year - District



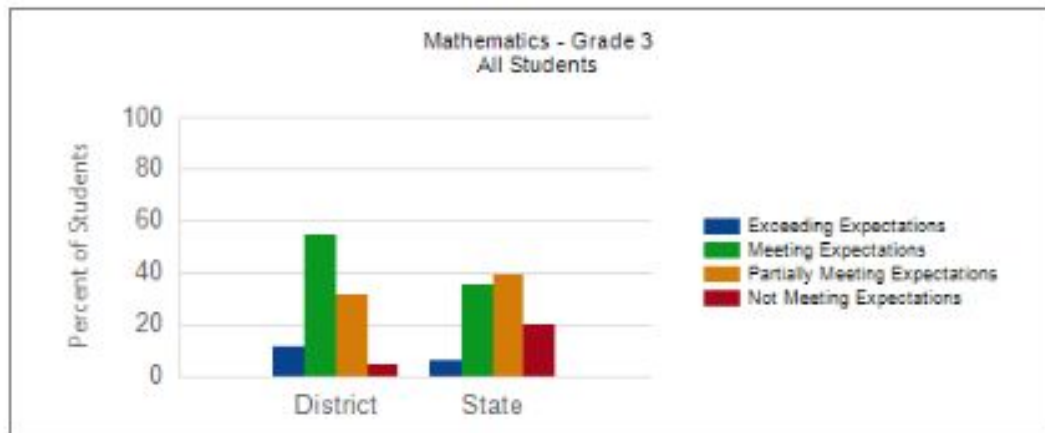
	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	20%	9%	14%	5%	11%	6%
Meeting Expectations	51%	40%	43%	28%	54%	35%
Partially Meeting Expectations	25%	38%	37%	40%	31%	39%
Not Meeting Expectations	5%	13%	5%	26%	4%	20%
Average Scaled Score	512	499	505	488	508	493
N Students	329	67,998	299	63,599	281	64,650
Participation Rate			100%	97%	100%	99%
Mean SGP						

# Math Grade 3

## Achievement Analysis - All Students

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	31	11	6
Meeting Expectations	153	54	35
Partially Meeting Expectations	88	31	39
Not Meeting Expectations	11	4	20
Total Included	281		



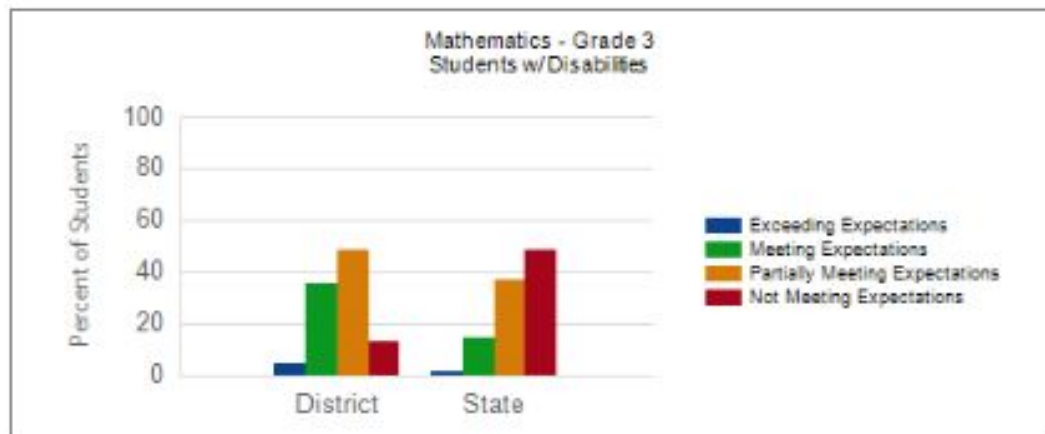


# Math Grade 3

## Achievement Analysis - Disability Status

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	2	4	1
Meeting Expectations	18	35	14
Partially Meeting Expectations	25	48	37
Not Meeting Expectations	7	13	48
Total Included	52		

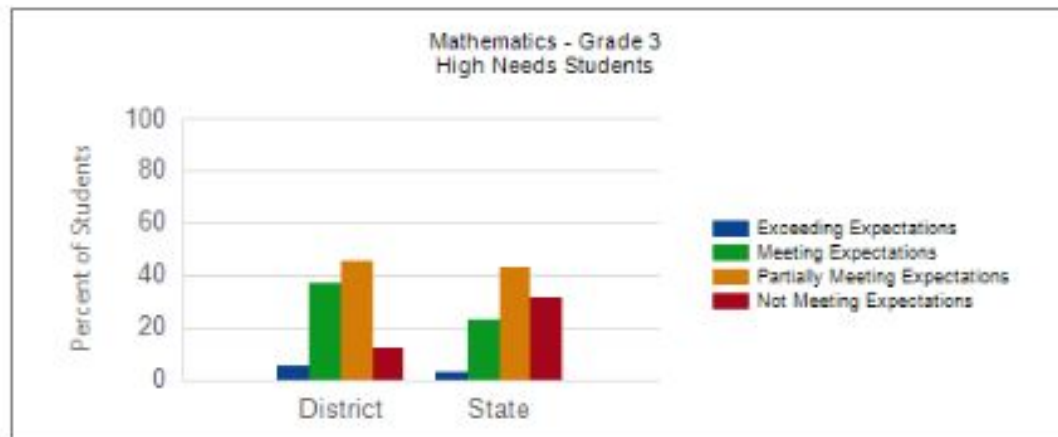


# Math Grade 3

## Achievement Analysis - High Needs

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	4	5	3
Meeting Expectations	28	37	23
Partially Meeting Expectations	34	45	43
Not Meeting Expectations	9	12	31
Total Included	75		



# Math Grade 3

## Curriculum Standards Analysis All Students

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	48	68%	54%	14
<b>Question Type</b>				
Constructed Response	12	63%	49%	14
Short Answer	13	68%	55%	13
Selected Response	23	69%	55%	14
<b>Domain / Cluster</b>				
<b>Geometry</b>	5	57%	43%	14
Reason with shapes and their attributes.	5	57%	43%	14
<b>Measurement and Data</b>	12	68%	55%	13
Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1	47%	40%	7
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	7	64%	50%	14
Represent and interpret data.	2	72%	58%	14
Solve problems involving measurement and estimation of intervals of time	2	91%	75%	16
<b>Number and Operations in Base Ten</b>	7	67%	54%	13
Use place value understanding and properties of operations to perform multi-digit arithmetic.	7	67%	54%	13
<b>Number and Operations—Fractions</b>	10	77%	64%	13
Develop understanding of fractions as numbers for fractions with denominators 2	10	77%	64%	13
<b>Operations and Algebraic Thinking</b>	14	64%	49%	15
Multiply and divide within 100.	1	57%	47%	10
Represent and solve problems involving multiplication and division.	5	77%	60%	17
Solve problems involving the four operations	5	55%	40%	15
Understand properties of multiplication and the relationship between multiplication and division.	3	61%	46%	15

# Math Grade 3

## Curriculum Standards Analysis Disability Status

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	48	54%	37%	17
<b>Question Type</b>				
Constructed Response	12	48%	31%	17
Short Answer	13	55%	38%	17
Selected Response	23	56%	39%	17
<b>Domain / Cluster</b>				
<b>Geometry</b>	5	45%	31%	14
Reason with shapes and their attributes.	5	45%	31%	14
<b>Measurement and Data</b>	12	58%	39%	19
Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1	31%	33%	-2
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	7	53%	33%	20
Represent and interpret data.	2	66%	43%	23
Solve problems involving measurement and estimation of intervals of time	2	81%	59%	22
<b>Number and Operations in Base Ten</b>	7	50%	34%	16
Use place value understanding and properties of operations to perform multi-digit arithmetic.	7	50%	34%	16
<b>Number and Operations—Fractions</b>	10	65%	48%	17
Develop understanding of fractions as numbers for fractions with denominators 2	10	65%	48%	17
<b>Operations and Algebraic Thinking</b>	14	48%	30%	18
Multiply and divide within 100.	1	50%	31%	19
Represent and solve problems involving multiplication and division.	5	61%	39%	22
Solve problems involving the four operations	5	37%	23%	14
Understand properties of multiplication and the relationship between multiplication and division.	3	42%	27%	15

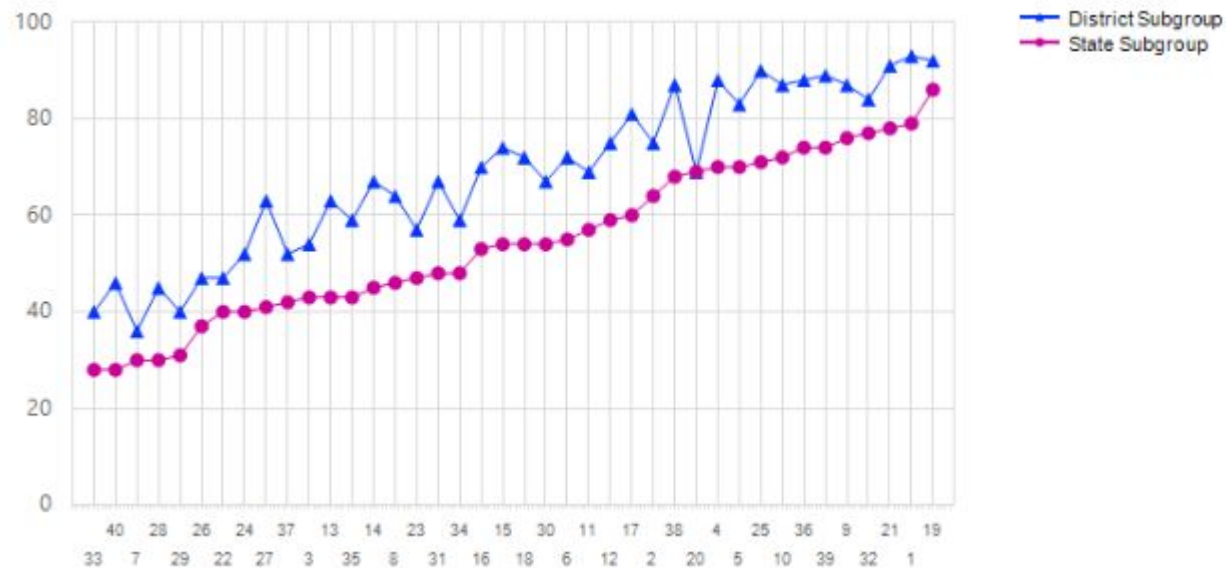
# Math Grade 3

## Curriculum Standards Analysis High Needs

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	48	56%	44%	12
<b>Question Type</b>				
Constructed Response	12	51%	39%	12
Short Answer	13	57%	46%	11
Selected Response	23	58%	46%	12
<b>Domain / Cluster</b>				
<b>Geometry</b>	5	46%	36%	10
Reason with shapes and their attributes.	5	46%	36%	10
<b>Measurement and Data</b>	12	59%	46%	13
Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1	32%	36%	-4
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	7	55%	41%	14
Represent and interpret data.	2	67%	49%	18
Solve problems involving measurement and estimation of intervals of time	2	81%	67%	14
<b>Number and Operations in Base Ten</b>	7	54%	42%	12
Use place value understanding and properties of operations to perform multi-digit arithmetic.	7	54%	42%	12
<b>Number and Operations—Fractions</b>	10	67%	56%	11
Develop understanding of fractions as numbers for fractions with denominators 2	10	67%	56%	11
<b>Operations and Algebraic Thinking</b>	14	50%	39%	11
Multiply and divide within 100.	1	47%	38%	9
Represent and solve problems involving multiplication and division.	5	63%	50%	13
Solve problems involving the four operations	5	41%	30%	11
Understand properties of multiplication and the relationship between multiplication and division.	3	46%	36%	10

# Math Grade 3

## Item Analysis All Students



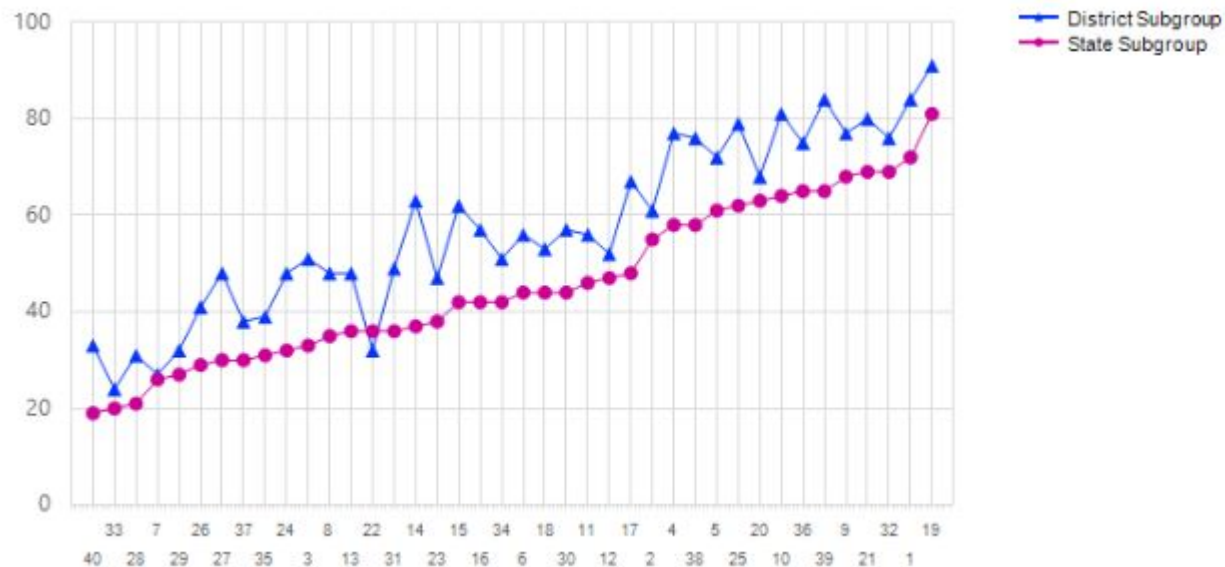
# Math Grade 3

## Item Analysis Disability Status



# Math Grade 3

## Item Analysis High Needs

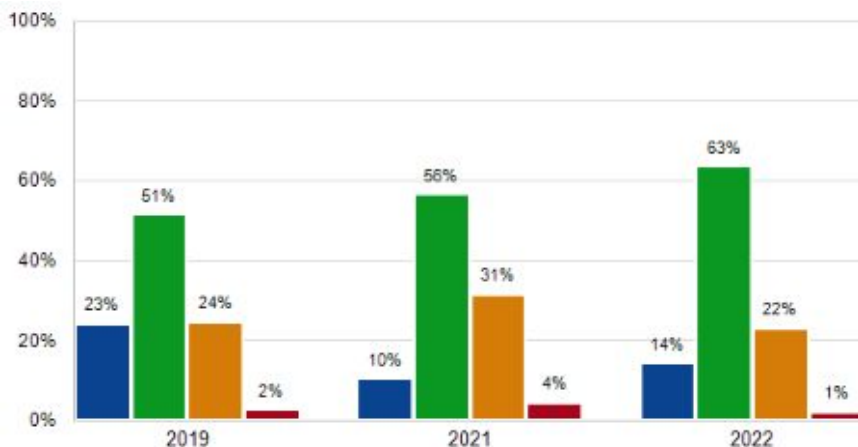




# Grade 4 Math

# Math Grade 4

## Achievement Distribution by Year - District



**MCA S Achievement Level**

- Exceeding Expectations
- Meeting Expectations
- Partially Meeting Expectations
- Not Meeting Expectations

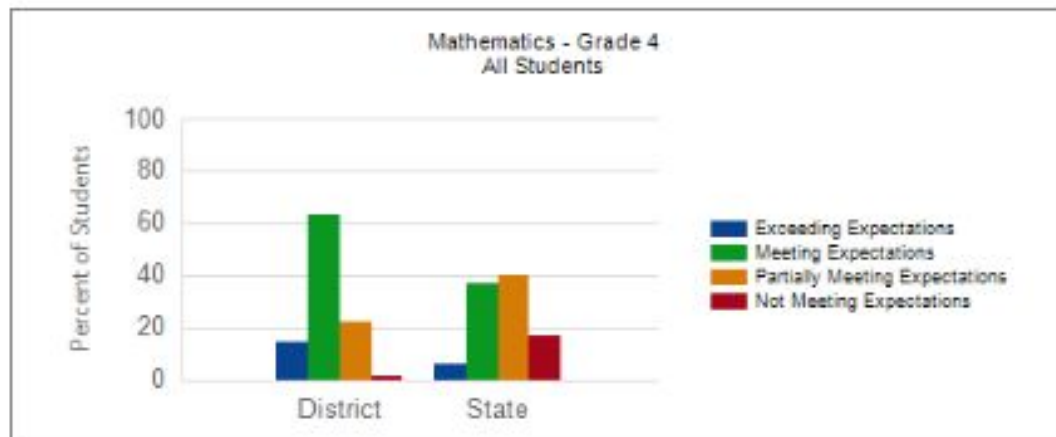
	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	23%	8%	10%	4%	14%	6%
Meeting Expectations	51%	41%	56%	29%	63%	37%
Partially Meeting Expectations	24%	39%	31%	43%	22%	40%
Not Meeting Expectations	2%	12%	4%	24%	1%	17%
Average Scaled Score	513	499	505	488	513	494
N Students	303	69,806	298	65,042	301	65,031
Participation Rate			99%	97%	100%	99%
Mean SGP	63	50			61	50

# Math Grade 4

## Achievement Analysis - All Students

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	41	14	6
Meeting Expectations	189	63	37
Partially Meeting Expectations	67	22	40
Not Meeting Expectations	4	1	17
Total Included	301		

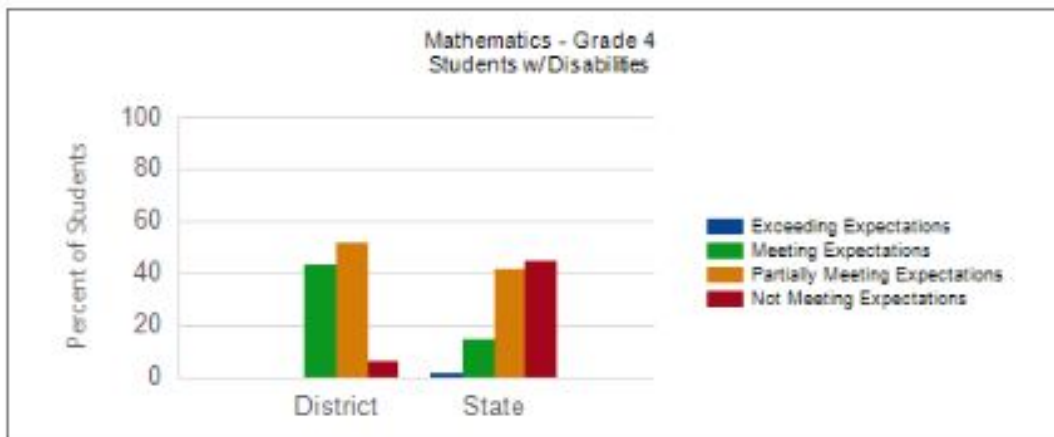


# Math Grade 4

## Achievement Analysis - Disability Status

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	0	0	1
Meeting Expectations	27	43	14
Partially Meeting Expectations	32	51	41
Not Meeting Expectations	4	6	44
Total Included	63		

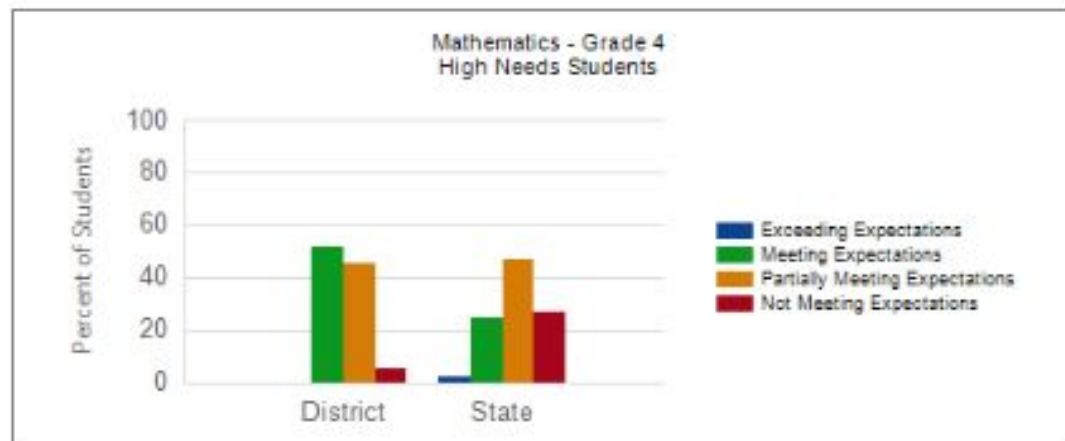


# Math Grade 4

## Achievement Analysis - High Needs

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	0	0	2
Meeting Expectations	43	51	24
Partially Meeting Expectations	38	45	47
Not Meeting Expectations	4	5	27
Total Included	85		



# Math Grade 4

## Curriculum Standards Analysis All Students

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	54	72%	53%	19
<b>Question Type</b>				
Constructed Response	16	74%	55%	19
Short Answer	17	72%	52%	20
Selected Response	21	71%	53%	18
<b>Domain / Cluster</b>				
<b>Geometry</b>	6	67%	47%	20
Draw and identify lines and angles	6	67%	47%	20
<b>Measurement and Data</b>	11	65%	44%	21
Geometric measurement: understand concepts of angle and measure angles.	3	83%	63%	20
Represent and interpret data.	1	57%	30%	27
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	7	58%	37%	21
<b>Number and Operations in Base Ten</b>	10	79%	64%	15
Generalize place value understanding for multi-digit whole numbers less than or equal to 1	6	79%	63%	16
Use place value understanding and properties of operations to perform multi-digit arithmetic on whole numbers less than or equal to 1	4	78%	66%	12
<b>Number and Operations—Fractions</b>	16	75%	55%	20
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers for fractions with denominators 2	4	83%	63%	20
Extend understanding of fraction equivalence and ordering for fractions with denominators 2	3	67%	47%	20
Understand decimal notation for fractions	9	74%	54%	20
<b>Operations and Algebraic Thinking</b>	11	72%	54%	18
Gain familiarity with factors and multiples.	1	37%	25%	12
Generate and analyze patterns.	4	82%	63%	19
Use the four operations with whole numbers to solve problems.	6	71%	53%	18

# Math Grade 4

## Curriculum Standards Analysis Disability Status

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	54	54%	35%	19
<b>Question Type</b>				
Constructed Response	16	58%	35%	23
Short Answer	17	56%	34%	22
Selected Response	21	51%	36%	15
<b>Domain / Cluster</b>				
<b>Geometry</b>	6	54%	33%	21
Draw and identify lines and angles	6	54%	33%	21
<b>Measurement and Data</b>	11	46%	26%	20
Geometric measurement: understand concepts of angle and measure angles.	3	67%	46%	21
Represent and interpret data.	1	41%	14%	27
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	7	38%	20%	18
<b>Number and Operations in Base Ten</b>	10	62%	44%	18
Generalize place value understanding for multi-digit whole numbers less than or equal to 1	6	62%	41%	21
Use place value understanding and properties of operations to perform multi-digit arithmetic on whole numbers less than or equal to 1	4	62%	47%	15
<b>Number and Operations—Fractions</b>	16	54%	35%	19
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers for fractions with denominators 2	4	71%	44%	27
Extend understanding of fraction equivalence and ordering for fractions with denominators 2	3	35%	27%	8
Understand decimal notation for fractions	9	53%	35%	18
<b>Operations and Algebraic Thinking</b>	11	56%	36%	20
Gain familiarity with factors and multiples.	1	25%	16%	9
Generate and analyze patterns.	4	69%	42%	27
Use the four operations with whole numbers to solve problems.	6	53%	35%	18

# Math Grade 4

## Curriculum Standards Analysis High Needs

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	54	57%	44%	13
<b>Question Type</b>				
Constructed Response	16	60%	45%	15
Short Answer	17	59%	43%	16
Selected Response	21	54%	43%	11
<b>Domain / Cluster</b>				
<b>Geometry</b>	6	54%	39%	15
Draw and identify lines and angles	6	54%	39%	15
<b>Measurement and Data</b>	11	50%	33%	17
Geometric measurement: understand concepts of angle and measure angles.	3	71%	54%	17
Represent and interpret data.	1	41%	19%	22
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	7	42%	27%	15
<b>Number and Operations in Base Ten</b>	10	65%	55%	10
Generalize place value understanding for multi-digit whole numbers less than or equal to 1	6	65%	53%	12
Use place value understanding and properties of operations to perform multi-digit arithmetic on whole numbers less than or equal to 1	4	66%	57%	9
<b>Number and Operations—Fractions</b>	16	58%	45%	13
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers for fractions with denominators 2	4	73%	54%	19
Extend understanding of fraction equivalence and ordering for fractions with denominators 2	3	40%	36%	4
Understand decimal notation for fractions	9	58%	44%	14
<b>Operations and Algebraic Thinking</b>	11	58%	44%	14
Gain familiarity with factors and multiples.	1	25%	19%	6
Generate and analyze patterns.	4	71%	52%	19
Use the four operations with whole numbers to solve problems.	6	55%	43%	12



# Math Grade 4

## Item Analysis All Students



# Math Grade 4

## Item Analysis Disability Status



# Math Grade 4

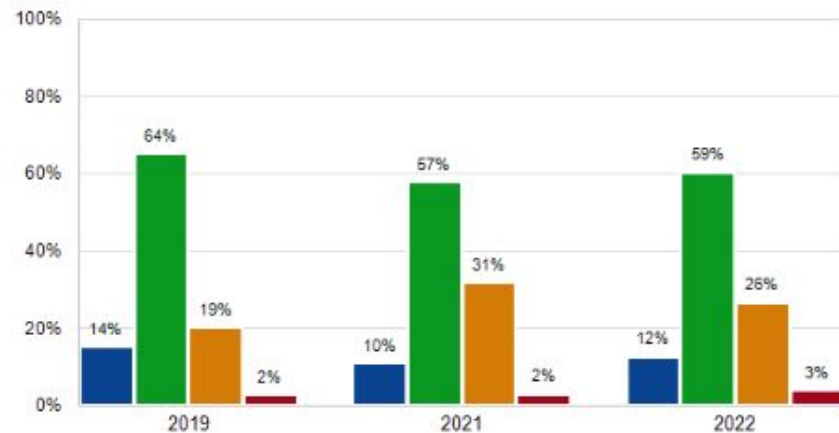
## Item Analysis High Needs



# Grade 5 Math

# Math Grade 5

## Achievement Distribution by Year - District



**MCAS Achievement Level**

- Exceeding Expectations
- Meeting Expectations
- Partially Meeting Expectations
- Not Meeting Expectations

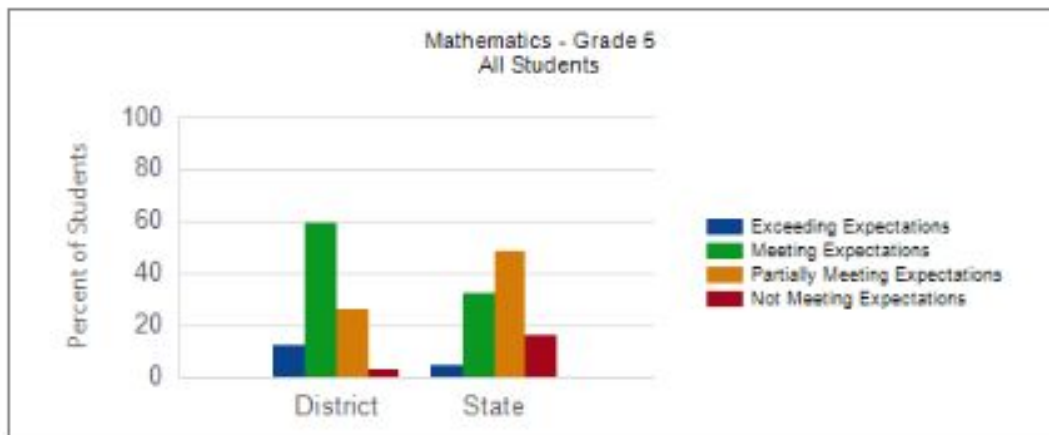
	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	14%	6%	10%	4%	12%	4%
Meeting Expectations	64%	43%	57%	29%	59%	32%
Partially Meeting Expectations	19%	42%	31%	47%	26%	48%
Not Meeting Expectations	2%	10%	2%	20%	3%	16%
Average Scaled Score	513	499	508	490	510	493
N Students	381	72,132	320	65,390	298	66,231
Participation Rate			99%	97%	100%	99%
Mean SGP	59	50	47	32	62	50

# Math Grade 5

## Achievement Analysis - All Students

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	35	12	4
Meeting Expectations	177	59	32
Partially Meeting Expectations	77	26	48
Not Meeting Expectations	9	3	16
Total Included	298		

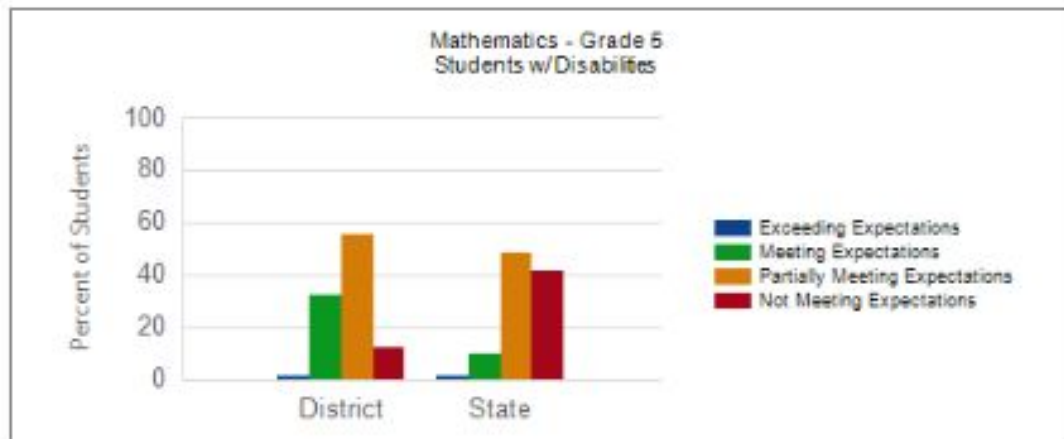


# Math Grade 5

## Achievement Analysis - Disability Status

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	1	1	1
Meeting Expectations	22	32	10
Partially Meeting Expectations	38	55	48
Not Meeting Expectations	8	12	41
Total Included	69		

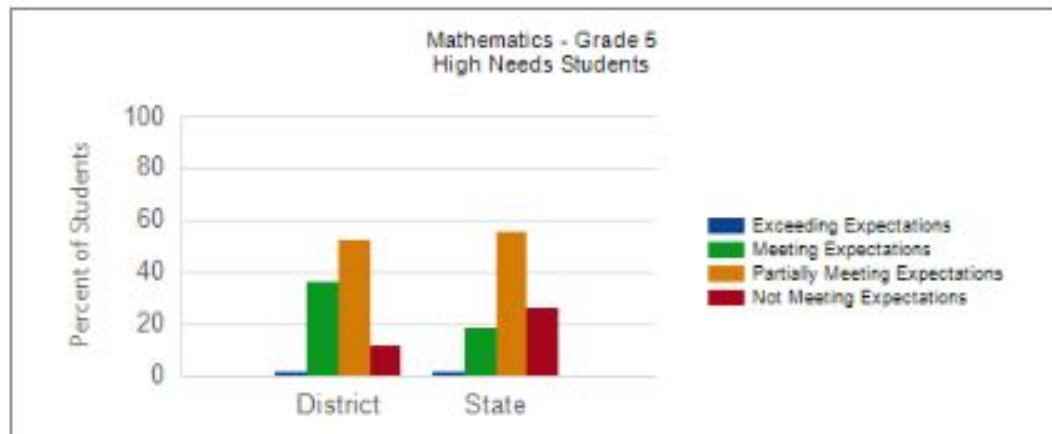


# Math Grade 5

## Achievement Analysis - High Needs

Participation Rate: 100%

Mathematics	N Students Included	% District	% State
Exceeding Expectations	1	1	1
Meeting Expectations	31	38	18
Partially Meeting Expectations	44	52	55
Not Meeting Expectations	9	11	26
Total Included	85		





# Math Grade 5

## Curriculum Standards Analysis All Students

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	54	70%	51%	19
<b>Question Type</b>				
Constructed Response	16	66%	48%	18
Short Answer	9	76%	52%	24
Selected Response	29	70%	52%	18
<b>Domain / Cluster</b>				
<b>Geometry</b>	7	76%	58%	18
Classify two-dimensional figures into categories based on their properties.	2	65%	47%	18
Graph points on the coordinate plane to solve real-world and mathematical problems.	5	81%	62%	19
<b>Measurement and Data</b>	9	64%	46%	18
Convert like measurement units within a given measurement system.	1	54%	28%	26
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	5	64%	51%	13
Represent and interpret data.	3	67%	44%	23
<b>Number and Operations in Base Ten</b>	16	71%	53%	18
Perform operations with multi-digit whole numbers and with decimals to hundredths.	9	65%	47%	18
Understand the place value system.	7	78%	61%	17
<b>Number and Operations—Fractions</b>	14	69%	47%	22
Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	12	66%	46%	20
Use equivalent fractions as a strategy to add and subtract fractions.	2	83%	54%	29
<b>Operations and Algebraic Thinking</b>	8	69%	52%	17
Analyze patterns and relationships.	4	71%	53%	18
Write and interpret numerical expressions.	4	67%	50%	17

# Math Grade 5

## Curriculum Standards Analysis Disability Status

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	54	52%	33%	19
<b>Question Type</b>				
Constructed Response	16	49%	29%	20
Short Answer	9	59%	31%	28
Selected Response	29	52%	36%	16
<b>Domain / Cluster</b>				
<b>Geometry</b>	7	63%	39%	24
Classify two-dimensional figures into categories based on their properties.	2	52%	35%	17
Graph points on the coordinate plane to solve real-world and mathematical problems.	5	67%	41%	26
<b>Measurement and Data</b>	9	45%	30%	15
Convert like measurement units within a given measurement system.	1	33%	12%	21
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	5	46%	34%	12
Represent and interpret data.	3	49%	30%	19
<b>Number and Operations in Base Ten</b>	16	54%	34%	20
Perform operations with multi-digit whole numbers and with decimals to hundredths.	9	45%	26%	19
Understand the place value system.	7	65%	43%	22
<b>Number and Operations—Fractions</b>	14	50%	31%	19
Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	12	48%	31%	17
Use equivalent fractions as a strategy to add and subtract fractions.	2	65%	30%	35
<b>Operations and Algebraic Thinking</b>	8	51%	34%	17
Analyze patterns and relationships.	4	54%	34%	20
Write and interpret numerical expressions.	4	49%	34%	15

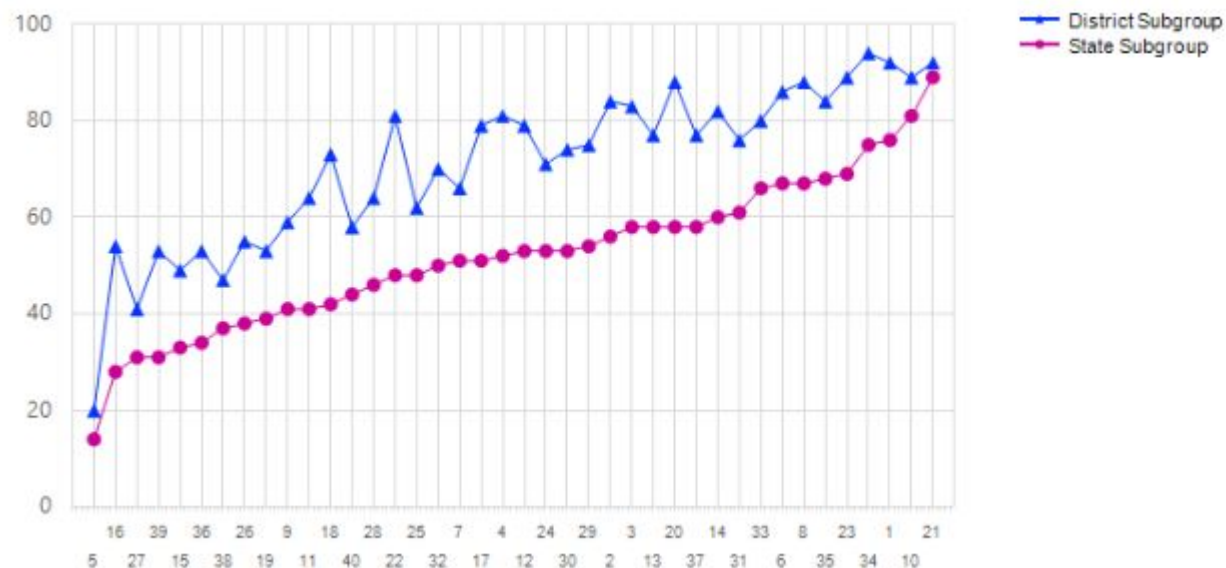
# Math Grade 5

## Curriculum Standards Analysis High Needs

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Mathematics</b>				
All items	54	54%	41%	13
<b>Question Type</b>				
Constructed Response	16	51%	38%	13
Short Answer	9	61%	40%	21
Selected Response	29	54%	43%	11
<b>Domain / Cluster</b>				
<b>Geometry</b>	7	65%	48%	17
Classify two-dimensional figures into categories based on their properties.	2	52%	39%	13
Graph points on the coordinate plane to solve real-world and mathematical problems.	5	70%	51%	19
<b>Measurement and Data</b>	9	48%	36%	12
Convert like measurement units within a given measurement system.	1	35%	16%	19
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	5	48%	42%	6
Represent and interpret data.	3	51%	34%	17
<b>Number and Operations in Base Ten</b>	16	55%	42%	13
Perform operations with multi-digit whole numbers and with decimals to hundredths.	9	47%	35%	12
Understand the place value system.	7	65%	51%	14
<b>Number and Operations—Fractions</b>	14	52%	37%	15
Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	12	49%	36%	13
Use equivalent fractions as a strategy to add and subtract fractions.	2	68%	41%	27
<b>Operations and Algebraic Thinking</b>	8	54%	42%	12
Analyze patterns and relationships.	4	56%	44%	12
Write and interpret numerical expressions.	4	51%	41%	10

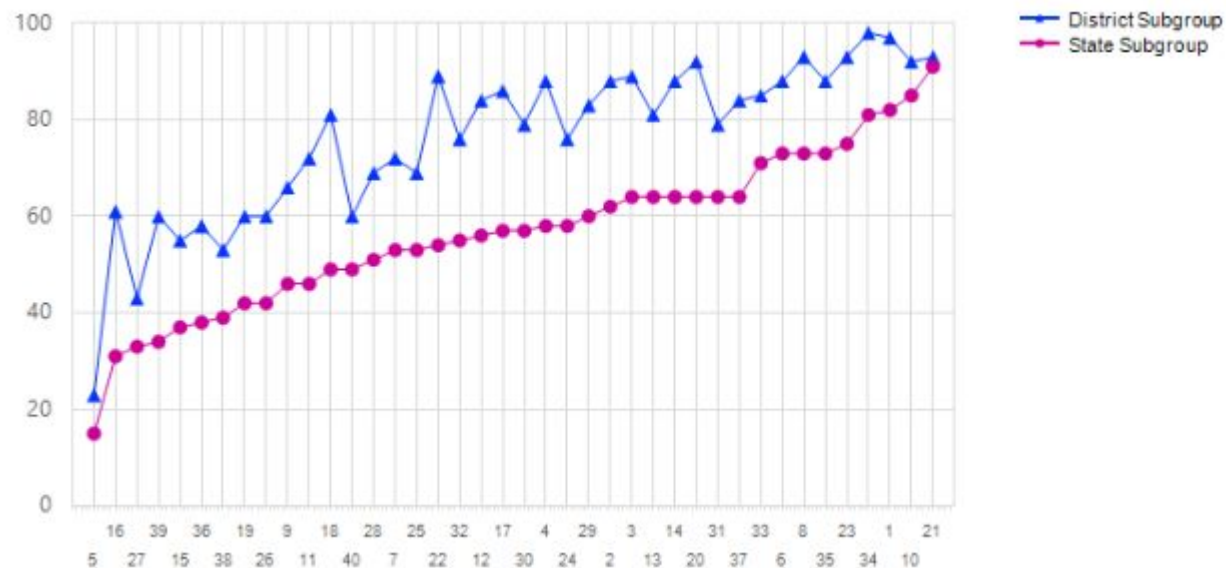
# Math Grade 5

## Item Analysis All Students



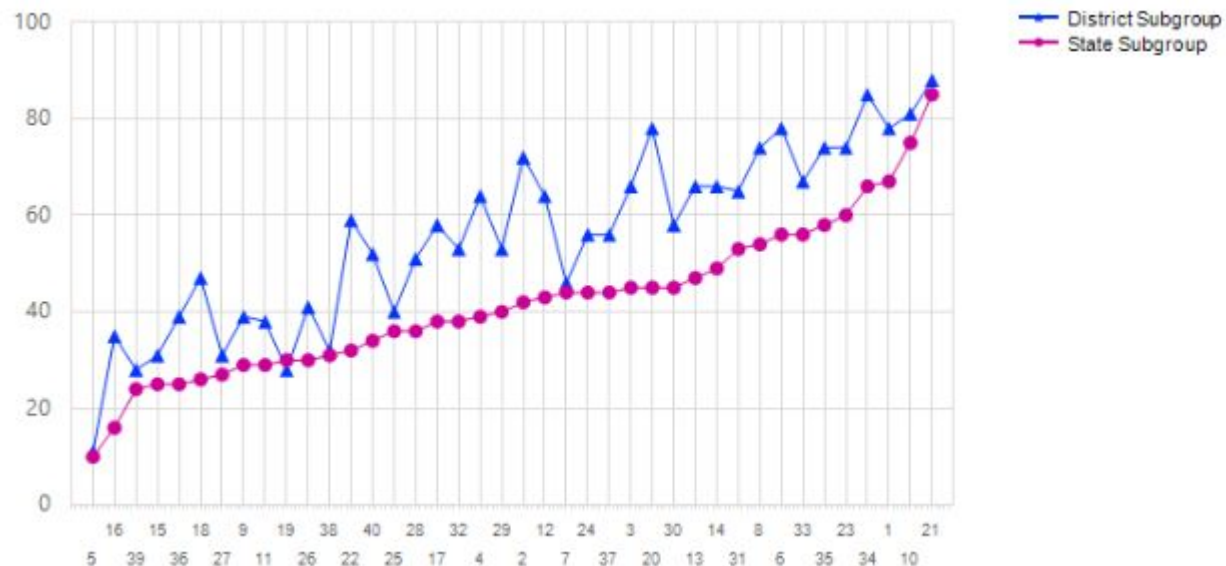
# Math Grade 5

## Item Analysis Disability Status



# Math Grade 5

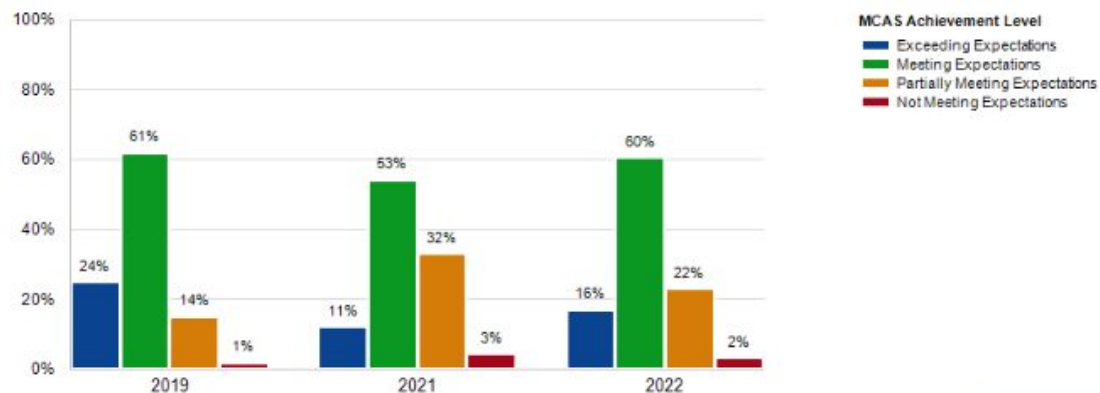
## Item Analysis High Needs



# Grade 6 Math

# Math Grade 6

## Achievement Distribution by Year - District



	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	24%	23%	10%	11%	11%	5%	16%	16%	5%
Meeting Expectations	61%	60%	41%	53%	53%	29%	60%	60%	37%
Partially Meeting Expectations	14%	15%	38%	32%	32%	44%	22%	22%	43%
Not Meeting Expectations	1%	2%	10%	3%	4%	23%	2%	3%	15%
Average Scaled Score	518	518	501	508	508	490	512	511	495
N Students	313	321	72,229	287	290	68,372	300	305	68,235
Participation Rate				97%	97%	95%	99%	98%	99%
Mean SGP	52	52	50	35	35	28	54	54	50

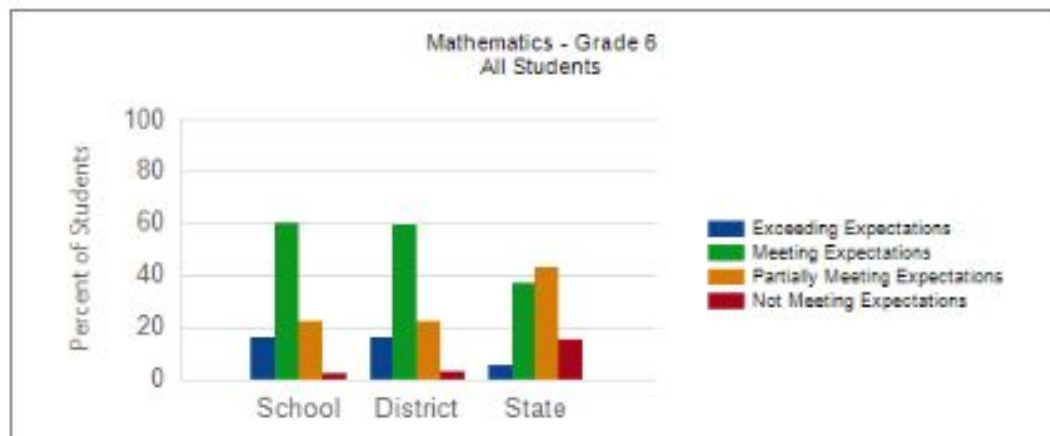


# Math Grade 6

## Achievement Analysis - All Students

Participation Rate: 99%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	48	16	16	5
Meeting Expectations	179	60	59	37
Partially Meeting Expectations	68	22	22	43
Not Meeting Expectations	7	2	3	15
Total Included	300			

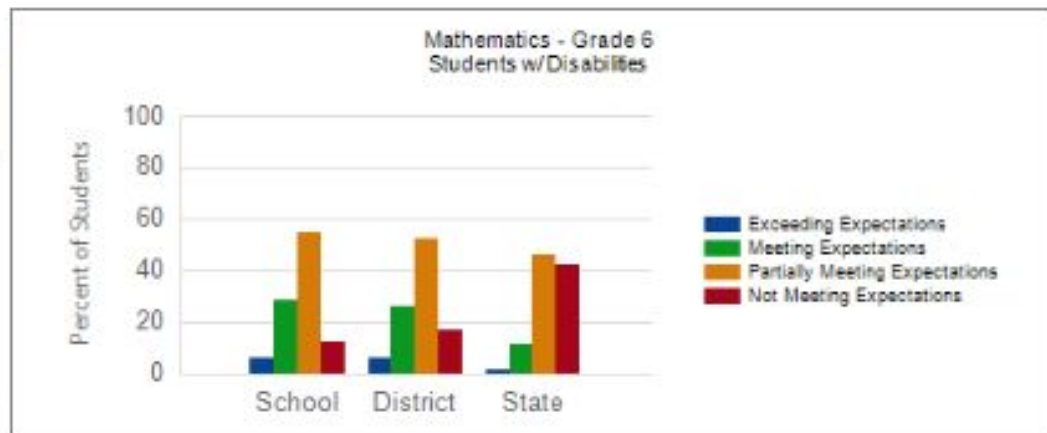


# Math Grade 6

## Achievement Analysis - Disability Status

Participation Rate: 98%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	3	6	6	1
Meeting Expectations	14	28	26	11
Partially Meeting Expectations	27	54	52	48
Not Meeting Expectations	6	12	17	42
Total Included	50			

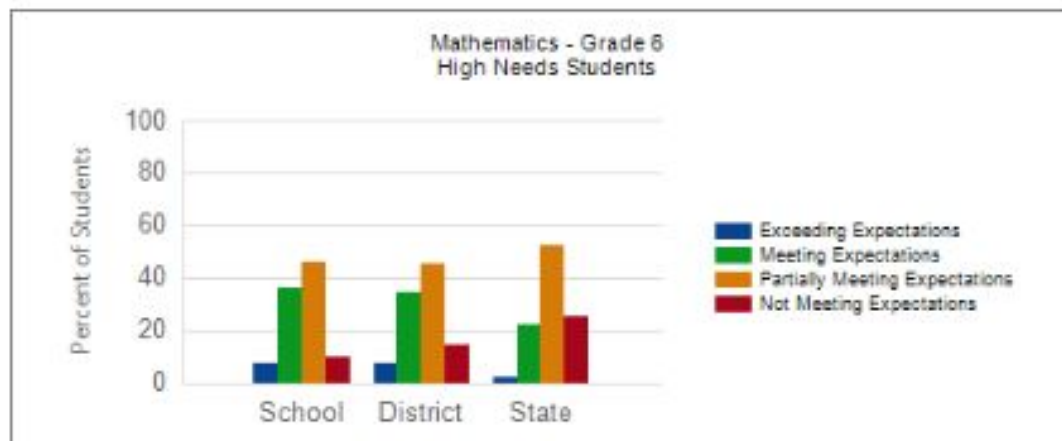


# Math Grade 6

## Achievement Analysis - High Needs

Participation Rate: 97%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	5	7	7	2
Meeting Expectations	24	38	34	22
Partially Meeting Expectations	31	48	45	52
Not Meeting Expectations	7	10	14	25
Total Included	67			



# Math Grade 6

## Curriculum Standards Analysis All Students

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	66%	65%	47%	19
<b>Question Type</b>					
Constructed Response	16	62%	61%	43%	19
Short Answer	9	71%	71%	52%	19
Selected Response	29	66%	65%	48%	18
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	16	66%	65%	49%	17
Apply and extend previous understandings of arithmetic to algebraic expressions.	10	60%	59%	43%	17
Reason about and solve one-variable equations and inequalities.	5	75%	74%	57%	18
Represent and analyze quantitative relationships between dependent and independent variables.	1	75%	74%	59%	16
<b>Geometry</b>	8	60%	59%	38%	22
Solve real-world and mathematical problems involving area	8	60%	59%	38%	22
<b>Ratios and Proportional Relationships</b>	11	72%	71%	58%	14
Understand ratio and rate concepts and use ratio and rate reasoning to solve problems.	11	72%	71%	58%	14
<b>Statistics and Probability</b>	8	69%	68%	44%	26
Develop understanding of statistical variability.	3	69%	68%	34%	35
Summarize and describe distributions.	5	70%	69%	50%	20
<b>The Number System</b>	11	61%	60%	43%	18
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1	42%	42%	29%	14
Apply and extend previous understandings of numbers to the system of rational numbers.	4	79%	79%	58%	21
Compute fluently with multi-digit numbers and find common factors and multiples.	6	52%	51%	35%	16

# Math Grade 6

## Curriculum Standards Analysis Disability Status

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	46%	44%	29%	17
<b>Question Type</b>					
Constructed Response	16	41%	38%	23%	18
Short Answer	9	51%	49%	31%	20
Selected Response	29	48%	46%	31%	17
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	16	44%	42%	29%	15
Apply and extend previous understandings of arithmetic to algebraic expressions.	10	40%	38%	24%	15
Reason about and solve one-variable equations and inequalities.	5	52%	50%	36%	16
Represent and analyze quantitative relationships between dependent and independent variables.	1	44%	42%	40%	3
<b>Geometry</b>	8	39%	37%	21%	18
Solve real-world and mathematical problems involving area	8	39%	37%	21%	18
<b>Ratios and Proportional Relationships</b>	11	54%	52%	38%	16
Understand ratio and rate concepts and use ratio and rate reasoning to solve problems.	11	54%	52%	38%	16
<b>Statistics and Probability</b>	8	57%	53%	29%	29
Develop understanding of statistical variability.	3	58%	53%	20%	37
Summarize and describe distributions.	5	57%	53%	34%	23
<b>The Number System</b>	11	40%	39%	25%	16
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1	19%	17%	10%	9
Apply and extend previous understandings of numbers to the system of rational numbers.	4	60%	59%	39%	21
Compute fluently with multi-digit numbers and find common factors and multiples.	6	31%	29%	18%	13

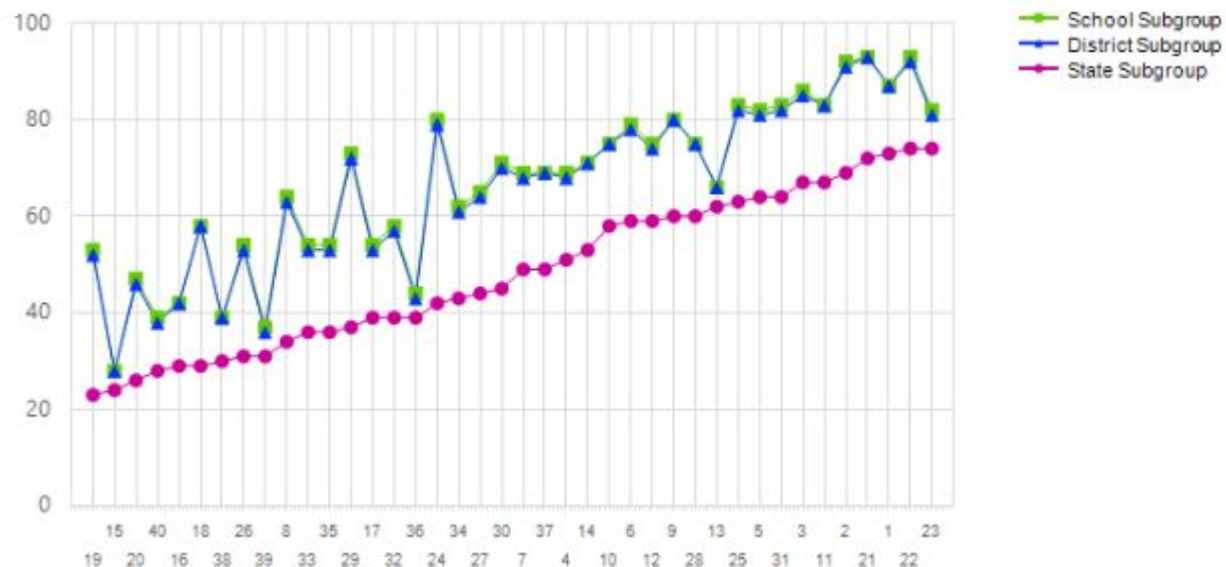
# Math Grade 6

## Curriculum Standards Analysis High Needs

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	51%	49%	37%	14
<b>Question Type</b>					
Constructed Response	16	46%	44%	32%	14
Short Answer	9	56%	54%	41%	15
Selected Response	29	52%	50%	39%	13
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	16	48%	46%	38%	10
Apply and extend previous understandings of arithmetic to algebraic expressions.	10	43%	42%	33%	10
Reason about and solve one-variable equations and inequalities.	5	58%	56%	46%	12
Represent and analyze quantitative relationships between dependent and independent variables.	1	48%	46%	48%	0
<b>Geometry</b>	8	44%	42%	27%	17
Solve real-world and mathematical problems involving area	8	44%	42%	27%	17
<b>Ratios and Proportional Relationships</b>	11	59%	57%	47%	11
Understand ratio and rate concepts and use ratio and rate reasoning to solve problems.	11	59%	57%	47%	11
<b>Statistics and Probability</b>	8	59%	55%	35%	23
Develop understanding of statistical variability.	3	58%	55%	26%	33
Summarize and describe distributions.	5	59%	56%	41%	18
<b>The Number System</b>	11	45%	43%	33%	13
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1	22%	20%	17%	4
Apply and extend previous understandings of numbers to the system of rational numbers.	4	65%	64%	48%	17
Compute fluently with multi-digit numbers and find common factors and multiples.	6	35%	34%	25%	11

# Math Grade 6

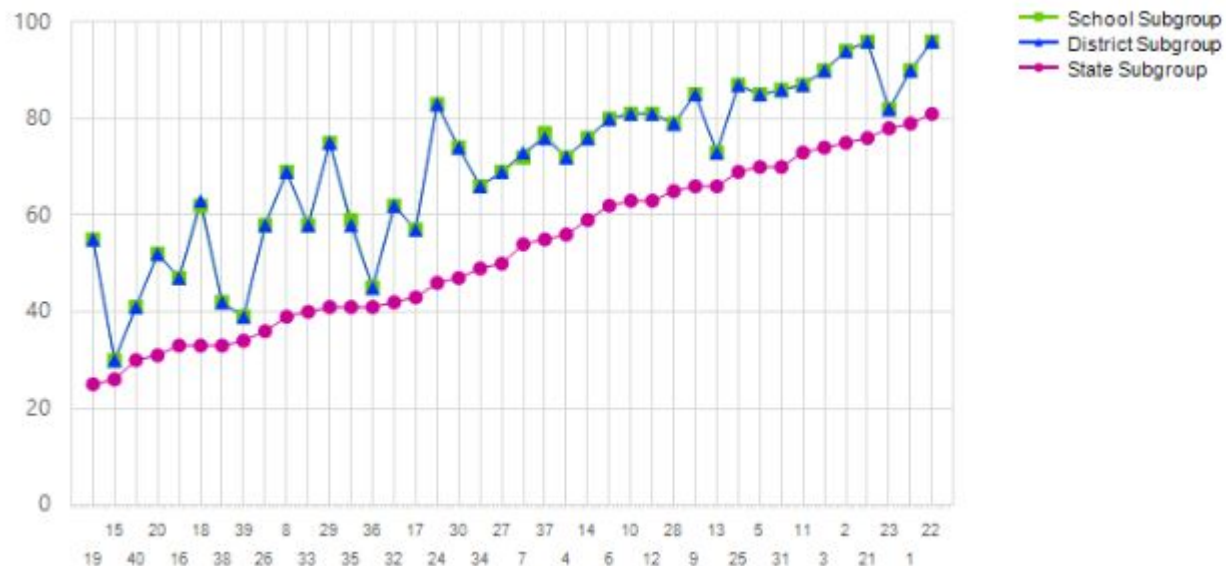
## Item Analysis All Students





# Math Grade 6

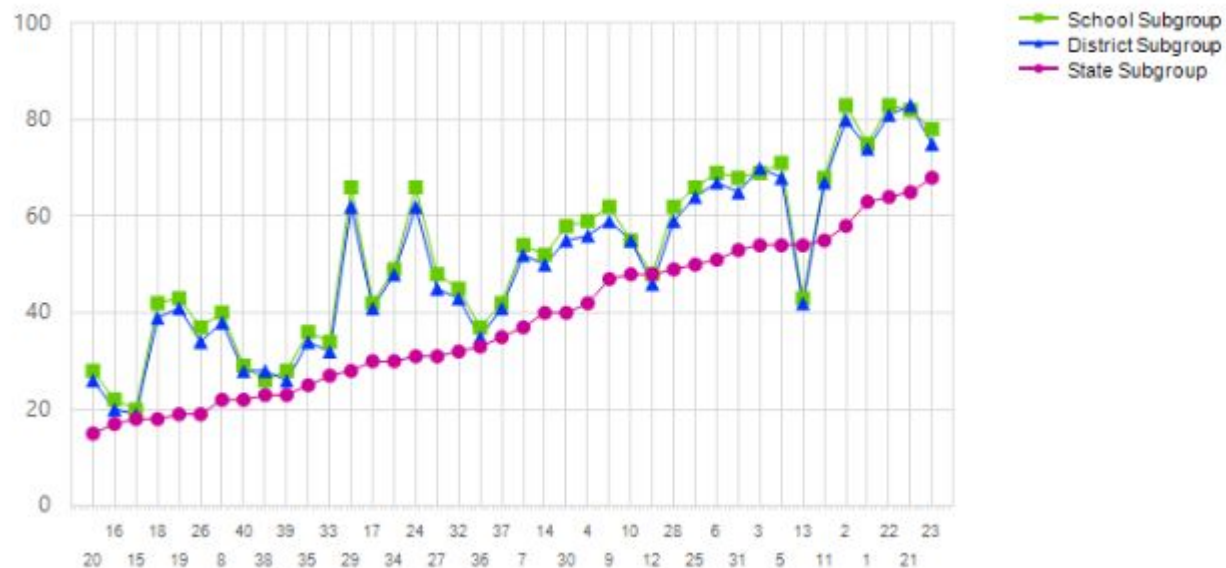
## Item Analysis Disability Status





# Math Grade 6

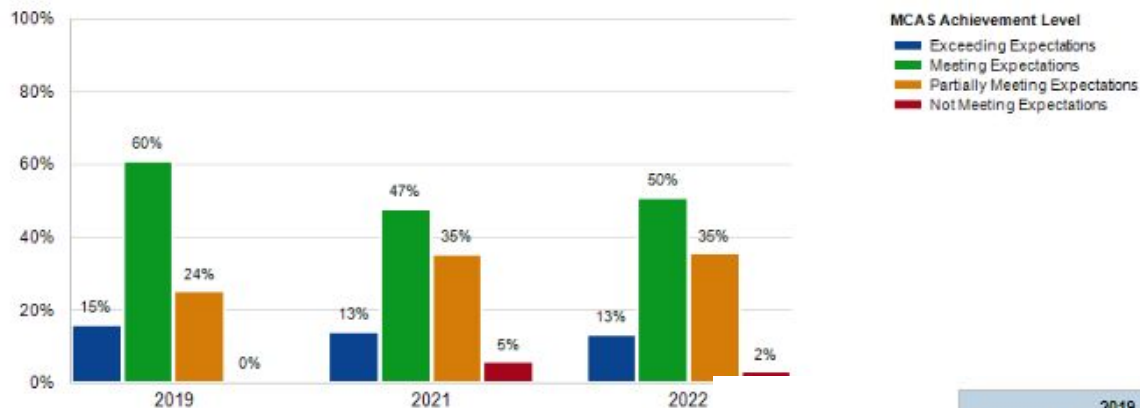
## Item Analysis High Needs



# Grade 7 Math

# Math Grade 7

## Achievement Distribution by Year - District



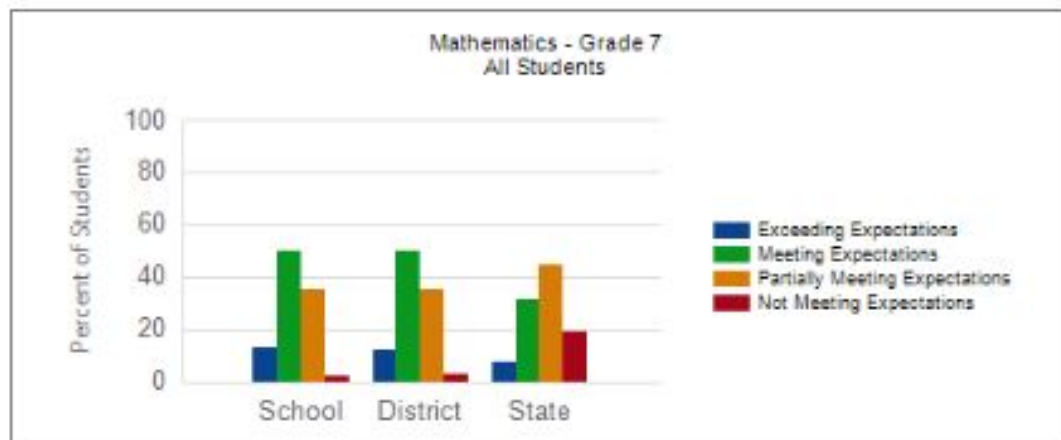
	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	15%	15%	11%	13%	13%	8%	13%	12%	7%
Meeting Expectations	60%	60%	37%	47%	46%	29%	50%	50%	31%
Partially Meeting Expectations	24%	25%	39%	35%	35%	47%	35%	35%	44%
Not Meeting Expectations	0%	1%	13%	5%	6%	18%	2%	3%	19%
Average Scaled Score	511	511	498	507	507	492	506	506	492
N Students	335	340	71,169	315	321	67,530	255	258	67,777
Participation Rate				97%	97%	94%	98%	98%	98%
Mean SGP	35	35	50	34	34	36	46	46	50

# Math Grade 7

## Achievement Analysis - All Students

Participation Rate: 98%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	32	13	12	7
Meeting Expectations	128	50	50	31
Partially Meeting Expectations	89	35	35	44
Not Meeting Expectations	6	2	3	19
Total Included	255			

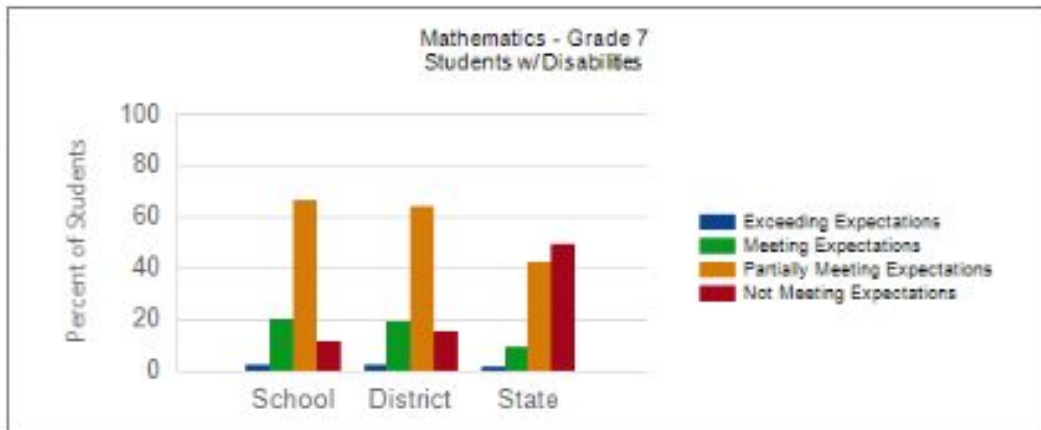


# Math Grade 7

## Achievement Analysis - Disability Status

Participation Rate: 98%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	1	2	2	1
Meeting Expectations	9	20	19	9
Partially Meeting Expectations	29	66	64	42
Not Meeting Expectations	5	11	15	49
Total Included	44			

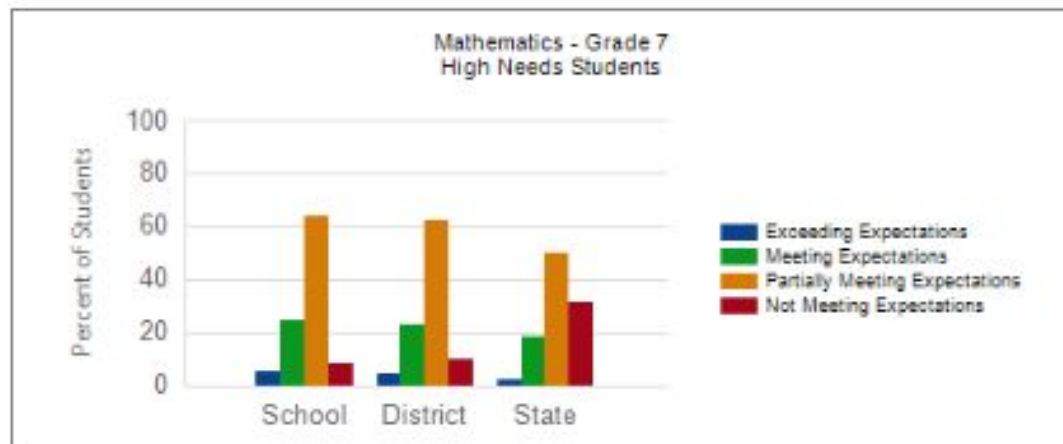


# Math Grade 7

## Achievement Analysis - High Needs

Participation Rate: 97%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	3	5	4	2
Meeting Expectations	16	24	23	18
Partially Meeting Expectations	42	64	62	50
Not Meeting Expectations	5	8	10	31
<b>Total Included</b>	<b>66</b>			



# Math Grade 7

## Curriculum Standards Analysis All Students

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	55%	55%	41%	14
<b>Question Type</b>					
Constructed Response	16	55%	55%	38%	17
Short Answer	13	43%	43%	28%	15
Selected Response	25	62%	62%	50%	12
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	14	51%	50%	36%	14
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	8	55%	55%	40%	15
Use properties of operations to generate equivalent expressions.	6	45%	45%	32%	13
<b>Geometry</b>	8	46%	45%	31%	15
Draw	3	45%	45%	40%	5
Solve real-life and mathematical problems involving angle measure	5	46%	45%	26%	20
<b>Ratios and Proportional Relationships</b>	11	63%	63%	53%	10
Analyze proportional relationships and use them to solve real-world and mathematical problems.	11	63%	63%	53%	10
<b>Statistics and Probability</b>	11	60%	60%	42%	19
Draw informal comparative inferences about two populations.	2	46%	46%	25%	21
Investigate chance processes and develop	8	63%	63%	44%	19
Use random sampling to draw inferences about a population.	1	68%	68%	57%	11
<b>The Number System</b>	10	56%	56%	43%	14
Apply and extend previous understandings of operations with fractions to add	10	56%	56%	43%	14

# Math Grade 7

## Curriculum Standards Analysis Disability Status

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	34%	33%	24%	10
<b>Question Type</b>					
Constructed Response	16	25%	24%	16%	9
Short Answer	13	23%	22%	12%	11
Selected Response	25	46%	45%	35%	11
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	14	26%	26%	18%	8
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	8	29%	28%	20%	8
Use properties of operations to generate equivalent expressions.	6	23%	23%	15%	8
<b>Geometry</b>	8	24%	23%	16%	9
Draw	3	36%	34%	27%	8
Solve real-life and mathematical problems involving angle measure	5	17%	17%	8%	9
<b>Ratios and Proportional Relationships</b>	11	38%	38%	32%	7
Analyze proportional relationships and use them to solve real-world and mathematical problems.	11	38%	38%	32%	7
<b>Statistics and Probability</b>	11	38%	38%	26%	13
Draw informal comparative inferences about two populations.	2	24%	23%	15%	9
Investigate chance processes and develop	8	40%	39%	26%	14
Use random sampling to draw inferences about a population.	1	55%	54%	43%	11
<b>The Number System</b>	10	44%	42%	28%	16
Apply and extend previous understandings of operations with fractions to add	10	44%	42%	28%	16



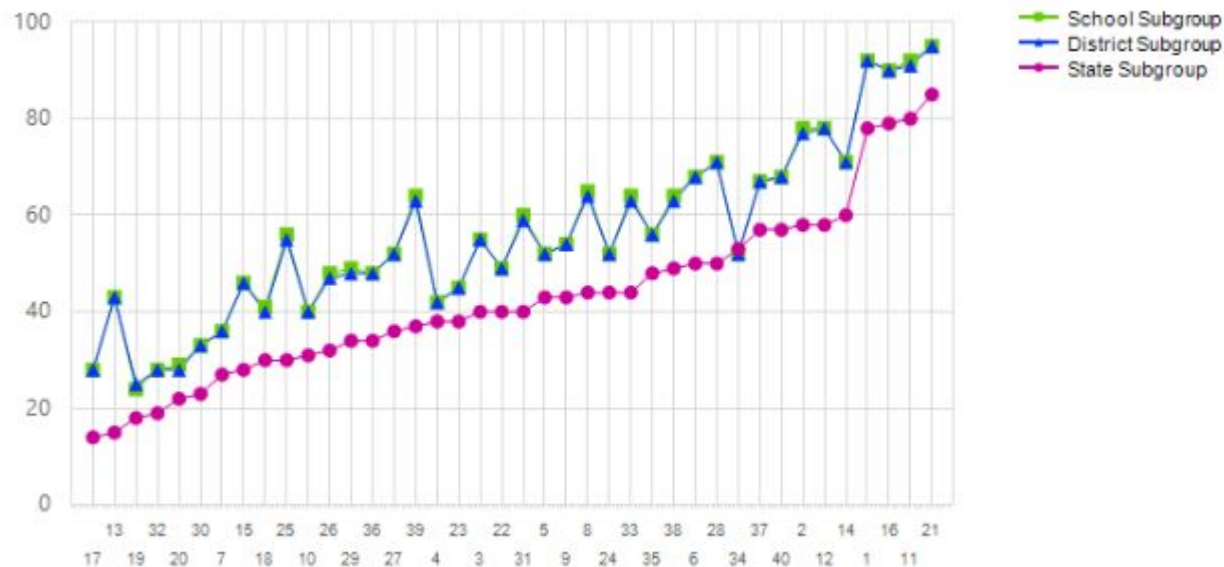
# Math Grade 7

## Curriculum Standards Analysis High Needs

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	37%	37%	31%	6
<b>Question Type</b>					
Constructed Response	16	29%	29%	25%	4
Short Answer	13	26%	26%	18%	8
Selected Response	25	48%	48%	41%	7
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	14	30%	29%	25%	4
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	8	32%	32%	28%	4
Use properties of operations to generate equivalent expressions.	6	27%	26%	22%	5
<b>Geometry</b>	8	26%	25%	21%	5
Draw	3	35%	34%	32%	3
Solve real-life and mathematical problems involving angle measure	5	20%	20%	15%	5
<b>Ratios and Proportional Relationships</b>	11	44%	44%	42%	2
Analyze proportional relationships and use them to solve real-world and mathematical problems.	11	44%	44%	42%	2
<b>Statistics and Probability</b>	11	41%	41%	32%	10
Draw informal comparative inferences about two populations.	2	30%	29%	18%	12
Investigate chance processes and develop	8	42%	42%	33%	9
Use random sampling to draw inferences about a population.	1	56%	56%	47%	9
<b>The Number System</b>	10	45%	44%	33%	12
Apply and extend previous understandings of operations with fractions to add	10	45%	44%	33%	12

# Math Grade 7

## Item Analysis All Students



# Math Grade 7

## Item Analysis Disability Status



# Math Grade 7

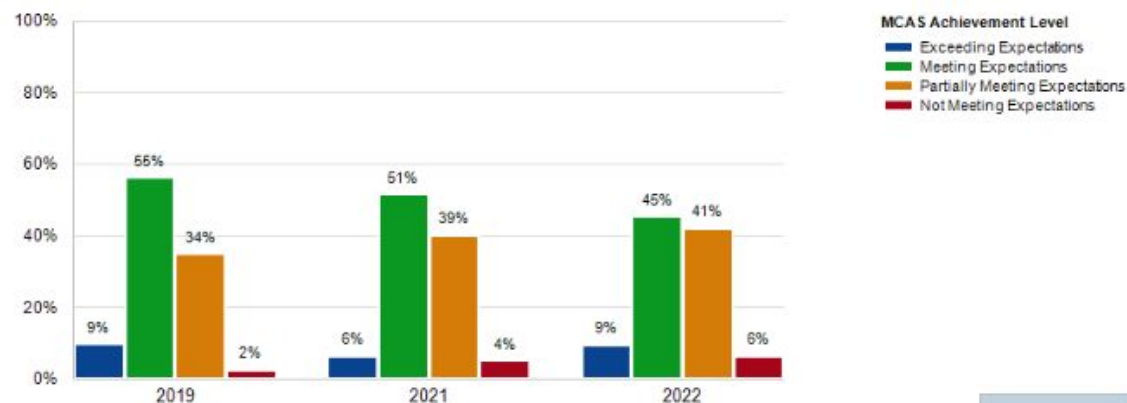
## Item Analysis High Needs



# Grade 8 Math

# Math Grade 8

## Achievement Distribution by Year - District



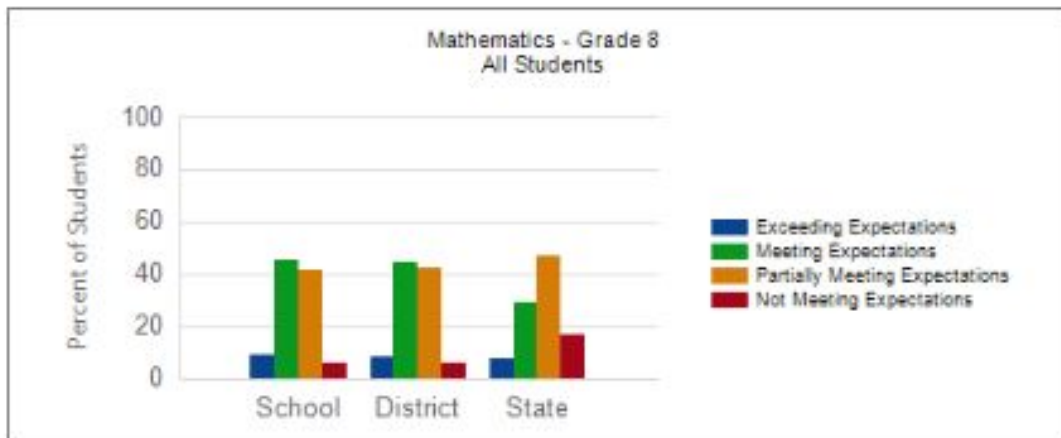
	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	9%	9%	10%	6%	6%	4%	9%	8%	7%
Meeting Expectations	55%	55%	37%	51%	50%	28%	45%	44%	29%
Partially Meeting Expectations	34%	34%	41%	39%	38%	46%	41%	42%	47%
Not Meeting Expectations	2%	3%	12%	4%	6%	21%	6%	6%	17%
Average Scaled Score	507	506	499	503	502	489	502	502	493
N Students	349	355	70,755	282	290	67,557	289	295	70,014
Participation Rate				98%	98%	93%	98%	97%	98%
Mean SGP	43	43	50	21	21	27	38	38	50

# Math Grade 8

## Achievement Analysis - All Students

Participation Rate: 98%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	25	9	8	7
Meeting Expectations	129	45	44	29
Partially Meeting Expectations	119	41	42	47
Not Meeting Expectations	16	6	6	17
Total Included	289			



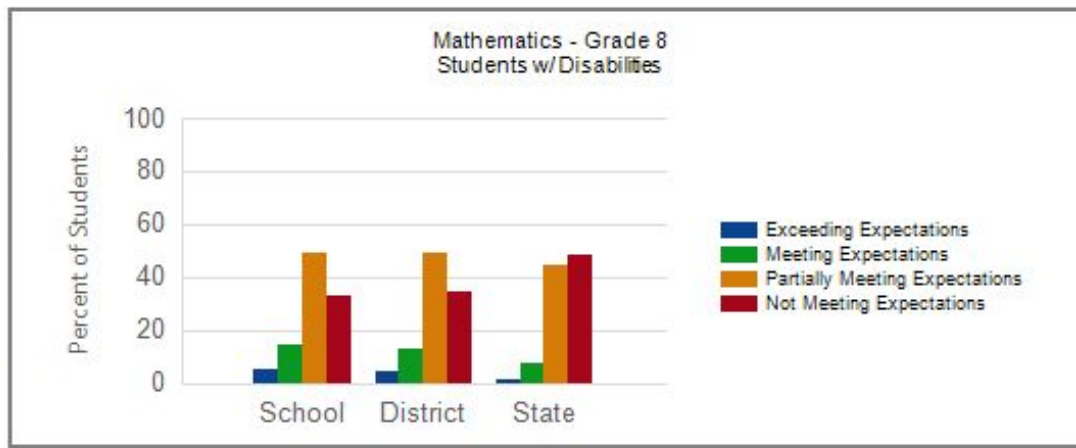
# Math Grade 8

## Achievement Analysis - Disability Status

\*\*\*This Data does not match the item analysis data\*\* it is over reporting NM

Participation Rate: 100%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	2	5	4	1
Meeting Expectations	6	14	13	7
Partially Meeting Expectations	21	49	49	44
Not Meeting Expectations	14	33	34	48
Total Included	43			



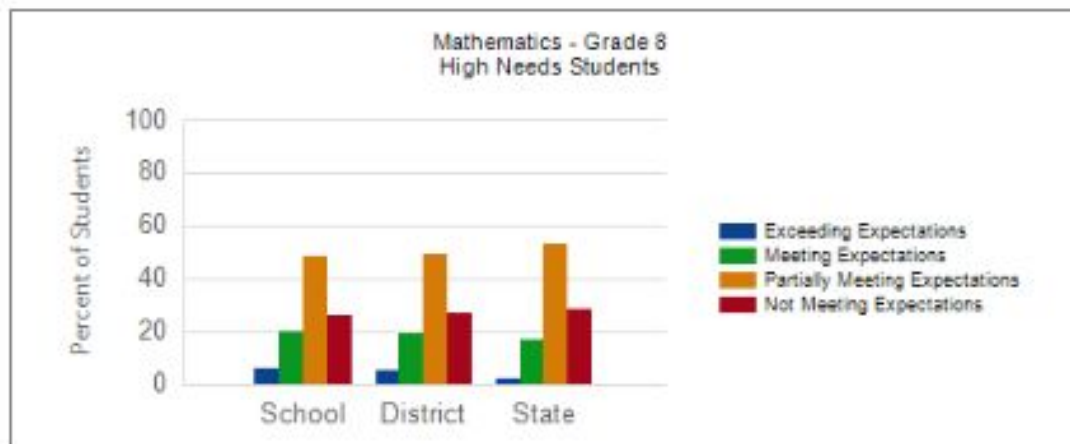


# Math Grade 8

## Achievement Analysis - High Needs

Participation Rate: 100%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	3	6	5	2
Meeting Expectations	11	20	19	17
Partially Meeting Expectations	26	48	49	53
Not Meeting Expectations	14	26	27	28
Total Included	54			



# Math Grade 8

## Curriculum Standards Analysis All Students

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	60%	59%	49%	11
<b>Question Type</b>					
Constructed Response	16	51%	50%	39%	12
Short Answer	8	56%	56%	45%	11
Selected Response	30	65%	65%	56%	9
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	17	61%	61%	51%	10
Analyze and solve linear equations and pairs of simultaneous linear equations.	4	61%	60%	51%	10
Understand the connections between proportional relationships	7	70%	69%	59%	11
Work with radicals and integer exponents.	6	52%	51%	43%	8
<b>Functions</b>	11	60%	59%	48%	12
Define	8	55%	55%	43%	12
Use functions to model relationships between quantities.	3	72%	71%	60%	12
<b>Geometry</b>	16	62%	62%	52%	10
Solve real-world and mathematical problems involving volume of cylinders	1	61%	61%	54%	7
Understand and apply the Pythagorean Theorem.	2	69%	69%	60%	9
Understand congruence and similarity using physical models	13	62%	61%	51%	11
<b>Statistics and Probability</b>	6	50%	49%	39%	11
Investigate patterns of association in bivariate data.	6	50%	49%	39%	11
<b>The Number System</b>	4	58%	58%	50%	9
Know that there are numbers that are not rational	4	58%	58%	50%	9

# Math Grade 8

## Curriculum Standards Analysis Disability Status

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	39%	38%	29%	10
<b>Question Type</b>					
Constructed Response	16	28%	27%	17%	11
Short Answer	8	34%	35%	23%	11
Selected Response	30	46%	44%	37%	9
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	<b>17</b>	<b>38%</b>	<b>38%</b>	<b>30%</b>	<b>8</b>
Analyze and solve linear equations and pairs of simultaneous linear equations.	4	34%	35%	31%	3
Understand the connections between proportional relationships	7	42%	43%	32%	10
Work with radicals and integer exponents.	6	35%	34%	27%	8
<b>Functions</b>	<b>11</b>	<b>35%</b>	<b>33%</b>	<b>28%</b>	<b>7</b>
Define	8	29%	28%	23%	6
Use functions to model relationships between quantities.	3	49%	47%	39%	10
<b>Geometry</b>	<b>16</b>	<b>45%</b>	<b>43%</b>	<b>31%</b>	<b>13</b>
Solve real-world and mathematical problems involving volume of cylinders	1	53%	49%	45%	8
Understand and apply the Pythagorean Theorem.	2	51%	52%	39%	12
Understand congruence and similarity using physical models	13	43%	41%	29%	14
<b>Statistics and Probability</b>	<b>6</b>	<b>32%</b>	<b>32%</b>	<b>20%</b>	<b>12</b>
Investigate patterns of association in bivariate data.	6	32%	32%	20%	12
<b>The Number System</b>	<b>4</b>	<b>40%</b>	<b>40%</b>	<b>33%</b>	<b>7</b>
Know that there are numbers that are not rational	4	40%	40%	33%	7

# Math Grade 8

## Curriculum Standards Analysis High Needs

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff
<b>Mathematics</b>					
All items	54	42%	41%	38%	4
<b>Question Type</b>					
Constructed Response	16	31%	30%	26%	5
Short Answer	8	37%	37%	33%	4
Selected Response	30	49%	48%	46%	3
<b>Domain / Cluster</b>					
<b>Expressions and Equations</b>	<b>17</b>	<b>41%</b>	<b>41%</b>	<b>40%</b>	<b>1</b>
Analyze and solve linear equations and pairs of simultaneous linear equations.	4	39%	39%	39%	0
Understand the connections between proportional relationships	7	46%	46%	46%	0
Work with radicals and integer exponents.	6	37%	37%	34%	3
<b>Functions</b>	<b>11</b>	<b>39%</b>	<b>37%</b>	<b>37%</b>	<b>2</b>
Define	8	33%	32%	32%	1
Use functions to model relationships between quantities.	3	52%	50%	49%	3
<b>Geometry</b>	<b>16</b>	<b>48%</b>	<b>46%</b>	<b>41%</b>	<b>7</b>
Solve real-world and mathematical problems involving volume of cylinders	1	47%	45%	49%	-2
Understand and apply the Pythagorean Theorem.	2	52%	53%	49%	3
Understand congruence and similarity using physical models	13	48%	45%	39%	8
<b>Statistics and Probability</b>	<b>6</b>	<b>33%</b>	<b>32%</b>	<b>27%</b>	<b>6</b>
Investigate patterns of association in bivariate data.	6	33%	32%	27%	6
<b>The Number System</b>	<b>4</b>	<b>45%</b>	<b>44%</b>	<b>40%</b>	<b>5</b>
Know that there are numbers that are not rational	4	45%	44%	40%	5

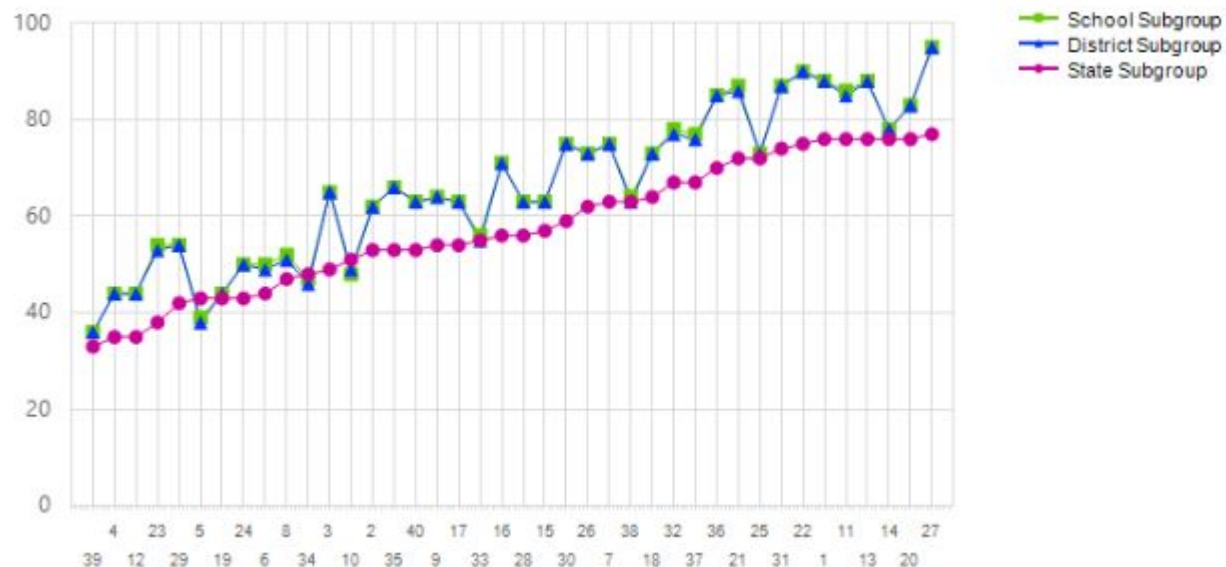
# Math Grade 8

## Item Analysis All Students



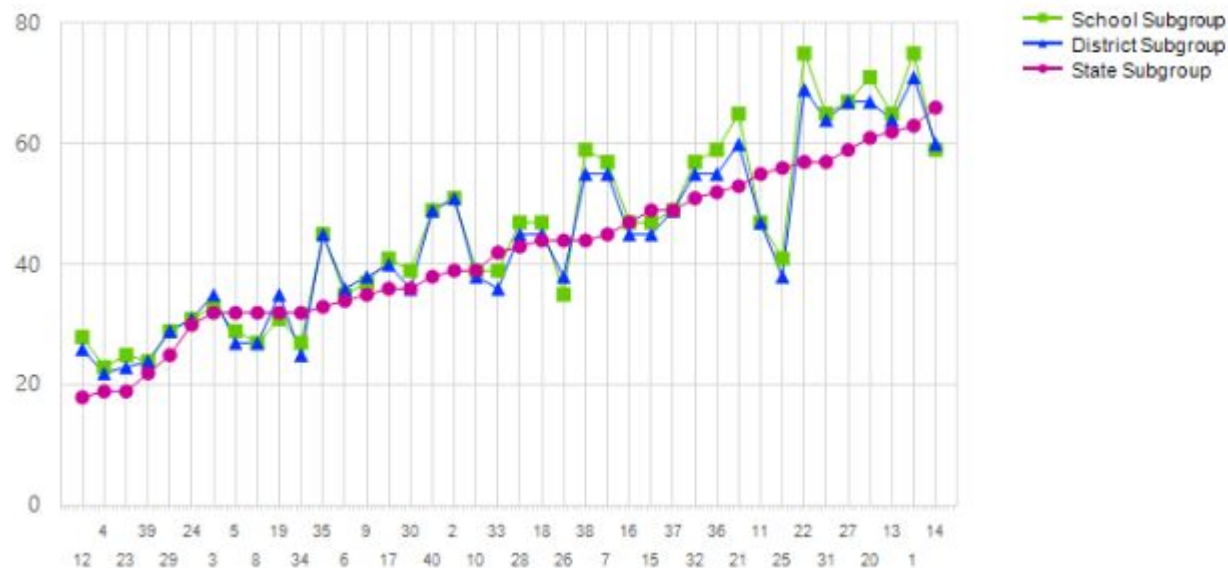
# Math Grade 8

## Item Analysis Disability Status



# Math Grade 8

## Item Analysis High Needs

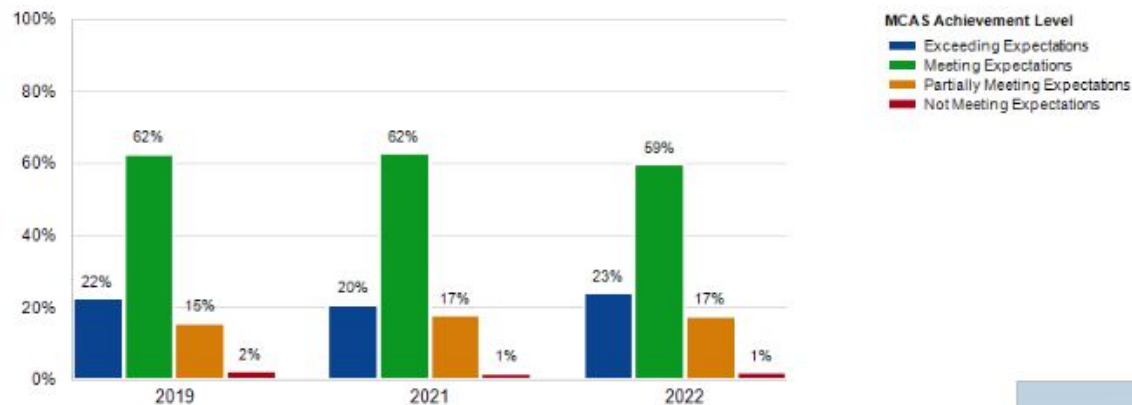


# Grade 10 Math



# Math Grade 10

## Achievement Distribution by Year - District



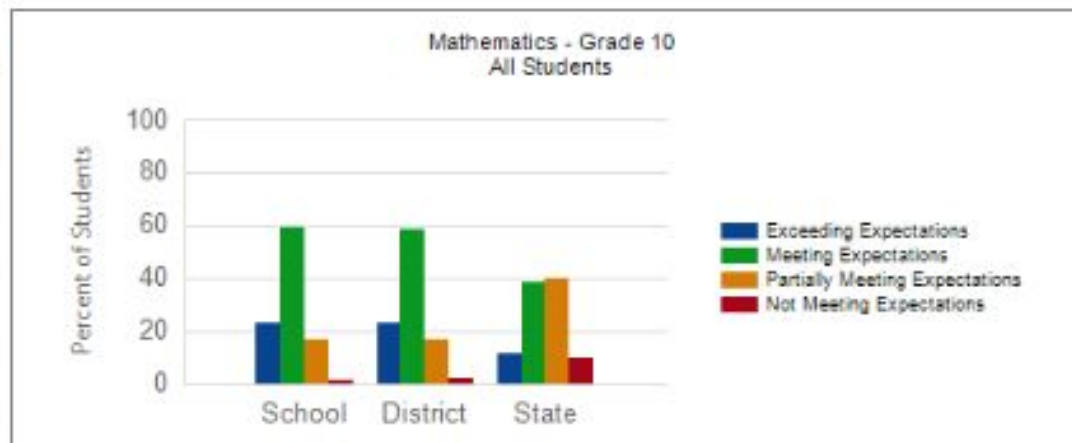
	2019			2021			2022		
	School	District	State	School	District	State	School	District	State
Exceeding Expectations	22%	21%	13%	20%	20%	11%	23%	23%	11%
Meeting Expectations	62%	61%	45%	62%	62%	41%	59%	58%	38%
Partially Meeting Expectations	15%	16%	33%	17%	17%	36%	17%	17%	40%
Not Meeting Expectations	2%	2%	9%	1%	2%	12%	1%	2%	10%
Average Scaled Score	517	516	505	515	515	501	517	517	501
N Students	314	320	70,392	321	328	64,015	284	287	67,028
Participation Rate				98%	98%	89%	99%	99%	98%
Mean SGP	65	65	50	56	56	37	61	61	50

# Math Grade 10

## Achievement Analysis - All Students

Participation Rate: 99%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	66	23	23	11
Meeting Expectations	167	59	58	38
Partially Meeting Expectations	48	17	17	40
Not Meeting Expectations	3	1	2	10
Total Included	284			

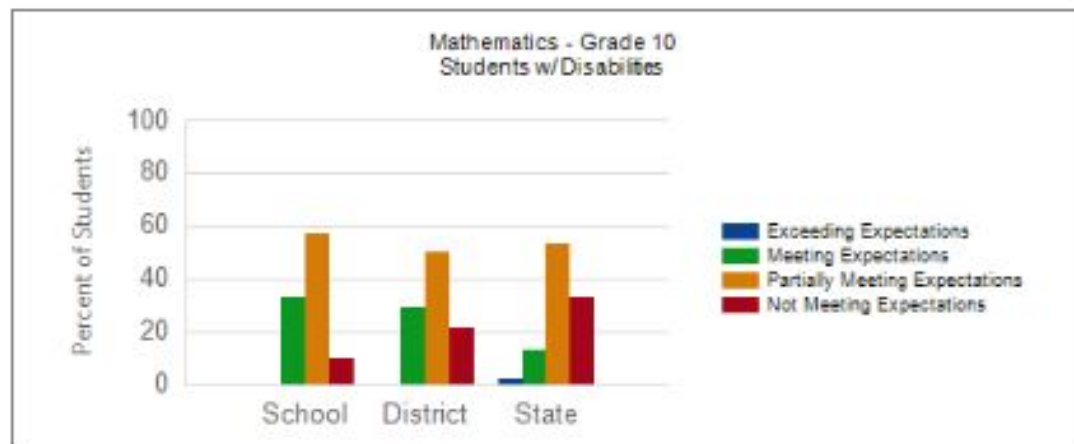


# Math Grade 10

## Achievement Analysis - Disability Status

Participation Rate: 100%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	0	0	0	2
Meeting Expectations	7	33	29	13
Partially Meeting Expectations	12	57	50	53
Not Meeting Expectations	2	10	21	33
Total Included	21			

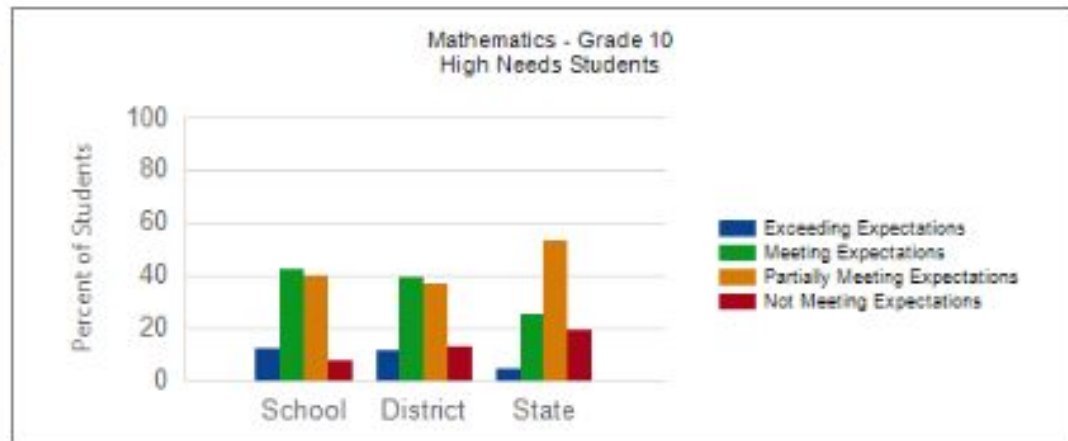


# Math Grade 10

## Achievement Analysis - High Needs

Participation Rate: 100%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	5	12	11	4
Meeting Expectations	18	42	39	25
Partially Meeting Expectations	17	40	37	53
Not Meeting Expectations	3	7	13	19
Total Included	43			



# Math Grade 10

## Curriculum Standards Analysis All Students

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff							
Mathematics						Geometric Measurement and Dimension	5	59%	59%	41%	18	
						Explain volume formulas and use them to solve problems.	5	59%	59%	41%	18	
	All Items	60	68%	68%	51%	17	Interpreting Categorical and Quantitative Data	4	76%	76%	61%	15
	Question Type						Interpret linear models.	2	70%	70%	54%	16
	Constructed Response	16	71%	71%	54%	18	Summarize	2	82%	82%	68%	14
	Short Answer	13	57%	57%	38%	19	Interpreting Functions	6	75%	75%	54%	21
	Selected Response	31	72%	72%	55%	17	Interpret linear and exponential functions having integer exponents that arise in applications in terms of the context.	2	65%	65%	41%	24
	Domain / Cluster						Understand the concept of a function and use function notation.	4	80%	80%	61%	19
	Arithmetic with Polynomials and Rational Expressions	1	88%	88%	66%	23	Linear, Quadratic, and Exponential Models	2	70%	70%	58%	12
	Perform arithmetic operations on polynomials.	1	88%	88%	66%	23	Construct and compare linear and exponential models and solve problems.	1	60%	60%	49%	11
Building Functions	2	66%	66%	41%	26	Interpret expressions for functions in terms of the situation they model.	1	80%	80%	68%	12	
Build a function that models a relationship between two quantities.	1	62%	62%	40%	21	Quantities	6	70%	70%	57%	13	
Build new functions from existing functions.	1	71%	71%	41%	30	Reason quantitatively and use units to solve problems.	6	70%	70%	57%	13	
Circles	3	61%	61%	43%	18	Reasoning with Equations and Inequalities	3	76%	76%	57%	19	
Find arc lengths and areas of sectors of circles.	2	54%	54%	33%	21	Represent and solve equations and inequalities graphically.	1	65%	65%	44%	20	
Understand and apply theorems about circles.	1	74%	74%	61%	13	Solve equations and inequalities in one variable.	1	94%	94%	72%	22	
Conditional Probability and the Rules of Probability	5	77%	77%	57%	20	Solve systems of equations.	1	70%	70%	55%	15	
Understand independence and conditional probability and use them to interpret data from simulations or experiments.	1	90%	90%	71%	18	Seeing Structure in Expressions	2	83%	83%	61%	22	
Use the rules of probability to compute probabilities of compound events in a uniform probability model.	4	73%	73%	53%	20	Interpret the structure of linear	1	94%	94%	76%	18	
Congruence	5	65%	65%	51%	14	Write expressions in equivalent forms to solve problems.	1	71%	71%	46%	26	
Experiment with transformations in the plane.	2	53%	53%	43%	10	Similarity, Right Triangles, and Trigonometry	5	65%	65%	54%	11	
Make geometric constructions.	1	71%	71%	59%	12	Define trigonometric ratios and solve problems involving right triangles.	1	48%	48%	31%	17	
Prove geometric theorems and	2	74%	74%	54%	19	Prove theorems involving similarity using a variety of ways of writing proofs	2	89%	89%	76%	13	
Creating Equations	5	74%	74%	53%	21	Understand similarity in terms of similarity transformations.	2	48%	48%	42%	6	
Create equations that describe numbers or relationships.	5	74%	74%	53%	21	The Real Number System	3	50%	50%	29%	21	
Expressing Geometric Properties with Equations	3	51%	51%	38%	13	Extend the properties of exponents to rational exponents.	3	50%	50%	29%	21	
Use coordinates to prove simple geometric theorems algebraically.	3	51%	51%	38%	13							

# Math Grade 10

## Curriculum Standards Analysis Disability Status

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff						
<b>Mathematics</b>						<b>Geometric Measurement and Dimension</b>	5	30%	30%	19%	11
All Items	60	41%	41%	31%	10	Explain volume formulas and use them to solve problems.	5	30%	30%	19%	11
<b>Question Type</b>						<b>Interpreting Categorical and Quantitative Data</b>	4	44%	44%	37%	7
Constructed Response	16	45%	45%	29%	16	Interpret linear models.	2	31%	31%	33%	-2
Short Answer	13	22%	22%	18%	4	Summarize	2	57%	57%	41%	16
Selected Response	31	47%	47%	37%	11	<b>Interpreting Functions</b>	6	50%	50%	28%	22
<b>Domain / Cluster</b>						Interpret linear and exponential functions having integer exponents that arise in applications in terms of the context.	2	24%	24%	18%	6
<b>Arithmetic with Polynomials and Rational Expressions</b>	1	81%	81%	44%	37	Understand the concept of a function and use function notation.	4	63%	63%	33%	30
Perform arithmetic operations on polynomials.	1	81%	81%	44%	37	<b>Linear, Quadratic, and Exponential Models</b>	2	50%	50%	44%	6
<b>Building Functions</b>	2	24%	24%	17%	6	Construct and compare linear and exponential models and solve problems.	1	38%	38%	37%	1
Build a function that models a relationship between two quantities.	1	33%	33%	20%	13	Interpret expressions for functions in terms of the situation they model.	1	62%	62%	52%	10
Build new functions from existing functions.	1	14%	14%	14%	0	<b>Quantities</b>	6	44%	44%	36%	9
<b>Circles</b>	3	35%	35%	26%	9	Reason quantitatively and use units to solve problems.	6	44%	44%	36%	9
Find arc lengths and areas of sectors of circles.	2	17%	17%	15%	1	<b>Reasoning with Equations and Inequalities</b>	3	67%	67%	38%	29
Understand and apply theorems about circles.	1	71%	71%	48%	24	Represent and solve equations and inequalities graphically.	1	48%	48%	26%	22
<b>Conditional Probability and the Rules of Probability</b>	5	50%	50%	33%	16	Solve equations and inequalities in one variable.	1	86%	86%	48%	38
Understand independence and conditional probability and use them to interpret data from simulations or experiments.	1	76%	76%	51%	25	Solve systems of equations.	1	67%	67%	40%	27
Use the rules of probability to compute probabilities of compound events in a uniform probability model.	4	43%	43%	29%	14	<b>Seeing Structure in Expressions</b>	2	57%	57%	39%	19
<b>Congruence</b>	5	33%	33%	32%	2	Interpret the structure of linear	1	76%	76%	49%	27
Experiment with transformations in the plane.	2	26%	26%	22%	5	Write expressions in equivalent forms to solve problems.	1	38%	38%	28%	10
Make geometric constructions.	1	43%	43%	45%	-2	<b>Similarity, Right Triangles, and Trigonometry</b>	5	38%	38%	36%	2
Prove geometric theorems and	2	36%	36%	35%	0	Define trigonometric ratios and solve problems involving right triangles.	1	10%	10%	13%	-4
<b>Creating Equations</b>	5	36%	36%	30%	6	Prove theorems involving similarity using a variety of ways of writing proofs	2	67%	67%	59%	7
Create equations that describe numbers or relationships.	5	36%	36%	30%	6	Understand similarity in terms of similarity transformations.	2	24%	24%	24%	0
<b>Expressing Geometric Properties with Equations</b>	3	33%	33%	26%	8	<b>The Real Number System</b>	3	19%	19%	14%	5
Use coordinates to prove simple geometric theorems algebraically.	3	33%	33%	26%	8	Extend the properties of exponents to rational exponents.	3	19%	19%	14%	5



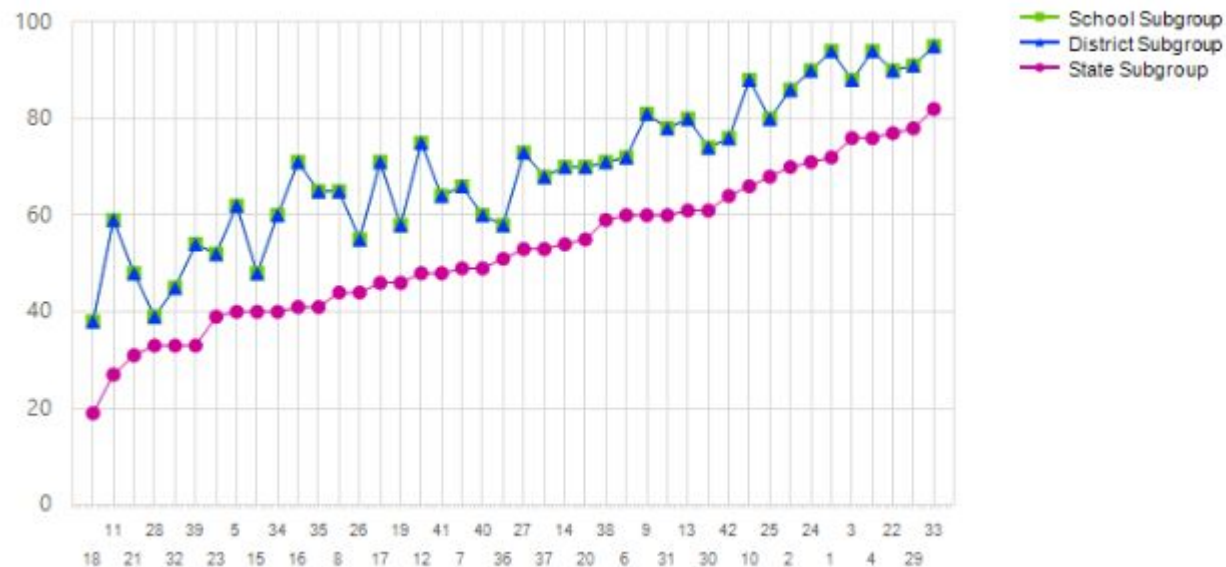
# Math Grade 10

## Curriculum Standards Analysis High Needs

	Possible Points	School % Possible Points	District % Possible Points	State % Possible Points	School/State Diff						
<b>Mathematics</b>						<b>Geometric Measurement and Dimension</b>	5	46%	46%	28%	18
All items	60	53%	53%	39%	14	Explain volume formulas and use them to solve problems.	5	46%	46%	28%	18
<b>Question Type</b>						<b>Interpreting Categorical and Quantitative Data</b>	4	58%	58%	48%	11
Constructed Response	16	56%	56%	39%	17	Interpret linear models.	2	49%	49%	41%	7
Short Answer	13	37%	37%	25%	12	Summarize	2	67%	67%	54%	14
Selected Response	31	59%	59%	44%	15	<b>Interpreting Functions</b>	6	58%	58%	38%	20
<b>Domain / Cluster</b>						Interpret linear and exponential functions having integer exponents that arise in applications in terms of the context.	2	45%	45%	24%	21
<b>Arithmetic with Polynomials and Rational Expressions</b>	1	77%	77%	54%	23	Understand the concept of a function and use function notation.	4	65%	65%	45%	19
Perform arithmetic operations on polynomials.	1	77%	77%	54%	23	<b>Linear, Quadratic, and Exponential Models</b>	2	59%	59%	49%	10
<b>Building Functions</b>	2	38%	38%	25%	13	Construct and compare linear and exponential models and solve problems.	1	51%	51%	41%	11
Build a function that models a relationship between two quantities.	1	49%	49%	28%	21	Interpret expressions for functions in terms of the situation they model.	1	67%	67%	58%	9
Build new functions from existing functions.	1	28%	28%	23%	5	<b>Quantities</b>	6	56%	56%	45%	12
<b>Circles</b>	3	49%	49%	31%	18	Reason quantitatively and use units to solve problems.	6	56%	56%	45%	12
Find arc lengths and areas of sectors of circles.	2	37%	37%	21%	16	<b>Reasoning with Equations and Inequalities</b>	3	67%	67%	45%	23
Understand and apply theorems about circles.	1	72%	72%	52%	20	Represent and solve equations and inequalities graphically.	1	53%	53%	31%	23
<b>Conditional Probability and the Rules of Probability</b>	5	63%	63%	43%	20	Solve equations and inequalities in one variable.	1	81%	81%	58%	23
Understand independence and conditional probability and use them to interpret data from simulations or experiments.	1	84%	84%	60%	24	Solve systems of equations.	1	67%	67%	45%	22
Use the rules of probability to compute probabilities of compound events in a uniform probability model.	4	58%	58%	38%	19	<b>Seeing Structure in Expressions</b>	2	66%	66%	48%	18
<b>Congruence</b>	5	48%	48%	39%	10	Interpret the structure of linear	1	81%	81%	63%	19
Experiment with transformations in the plane.	2	31%	31%	29%	2	Write expressions in equivalent forms to solve problems.	1	51%	51%	34%	18
Make geometric constructions.	1	65%	65%	51%	14	<b>Similarity, Right Triangles, and Trigonometry</b>	5	52%	52%	44%	8
Prove geometric theorems and	2	57%	57%	43%	14	Define trigonometric ratios and solve problems involving right triangles.	1	28%	28%	19%	9
<b>Creating Equations</b>	5	52%	52%	40%	12	Prove theorems involving similarity using a variety of ways of writing proofs	2	79%	79%	67%	12
Create equations that describe numbers or relationships.	5	52%	52%	40%	12	Understand similarity in terms of similarity transformations.	2	36%	36%	32%	4
<b>Expressing Geometric Properties with Equations</b>	3	45%	45%	29%	16	<b>The Real Number System</b>	3	29%	29%	18%	11
Use coordinates to prove simple geometric theorems algebraically.	3	45%	45%	29%	16	Extend the properties of exponents to rational exponents.	3	29%	29%	18%	11

# Math Grade 10

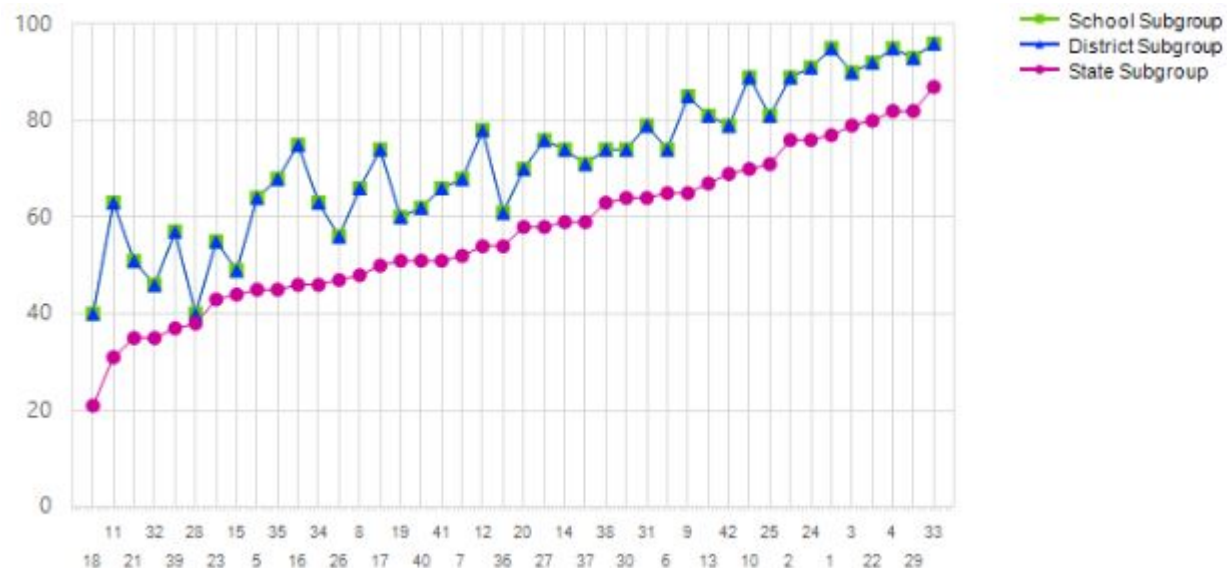
## Item Analysis All Students





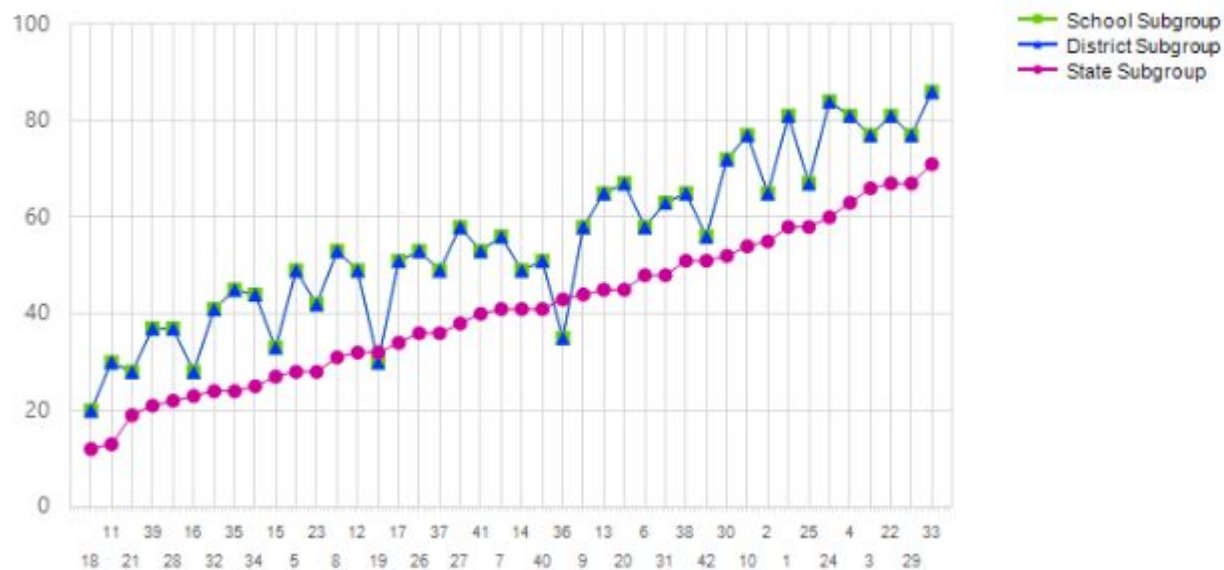
# Math Grade 10

## Item Analysis Disability Status



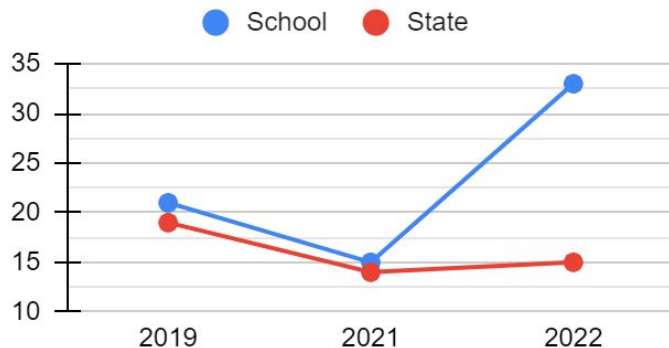
# Math Grade 10

## Item Analysis High Needs

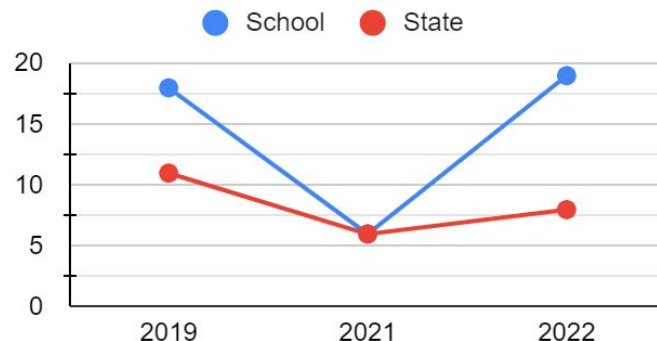


# Special Education 3-Year Growth Math

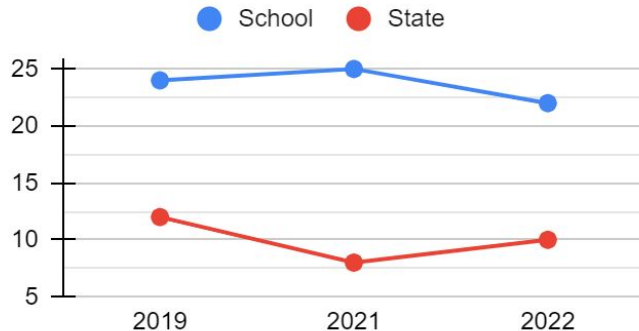
## Grade 10 Students with Disab...



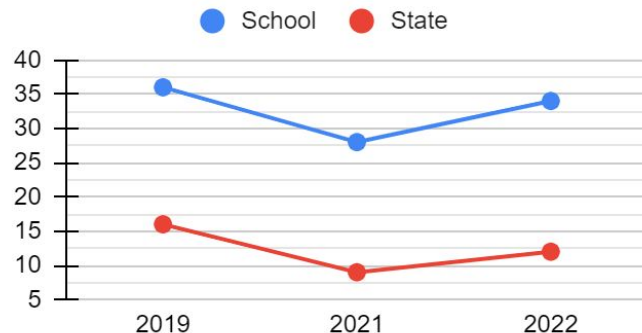
## Grade 8 Students with Disabil...



## Grade 7 Students with Disabilit...

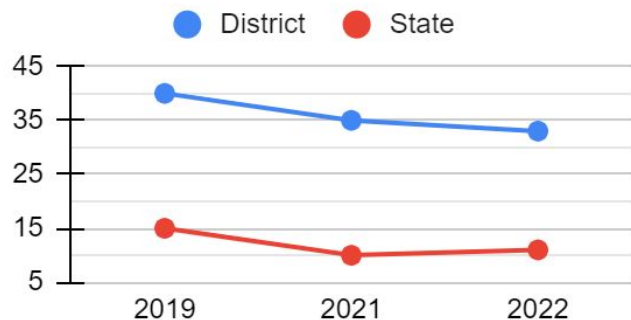


## Grade 6 Students With Disabili...

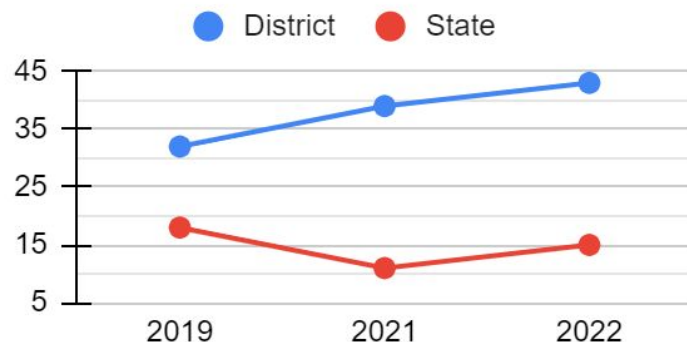


# Special Education 3-Year Growth Math

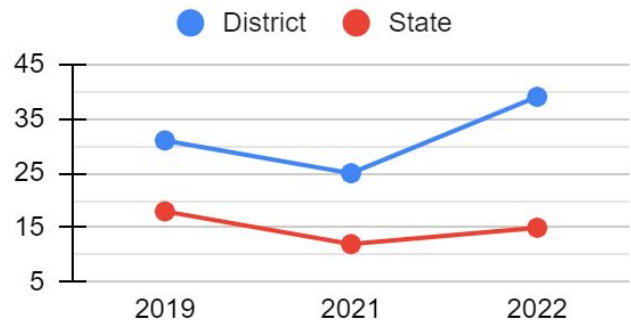
## Grade 5 Students with Dis...



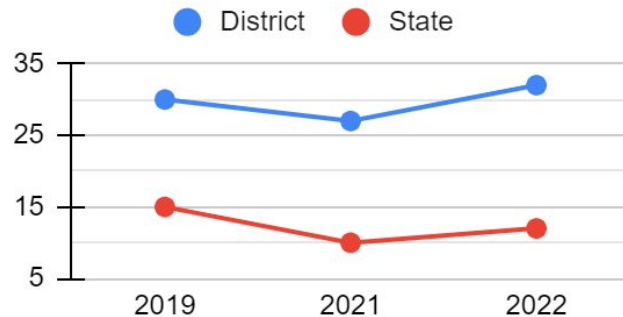
## Grade 4 Students with Dis...



## Grade 3 Students with Dis...

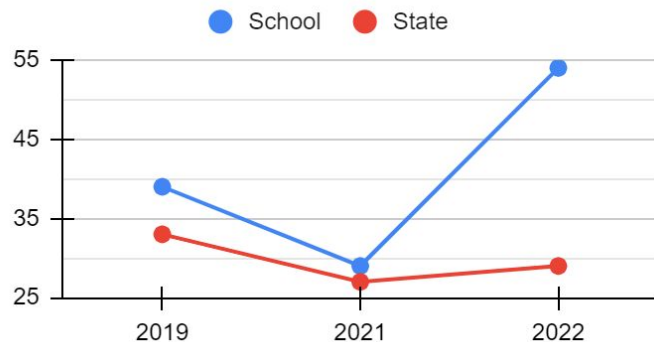


## Grades 3-8 Students with...

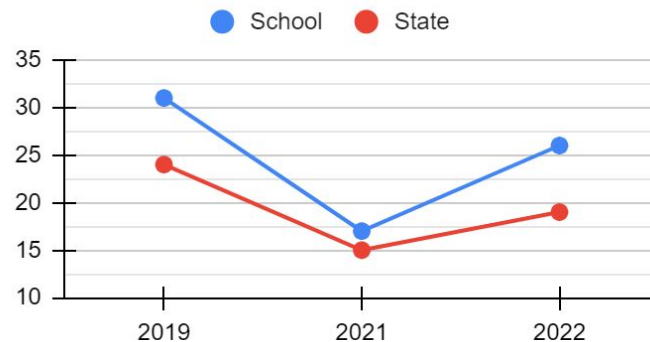


# High Needs 3-Year Growth Math

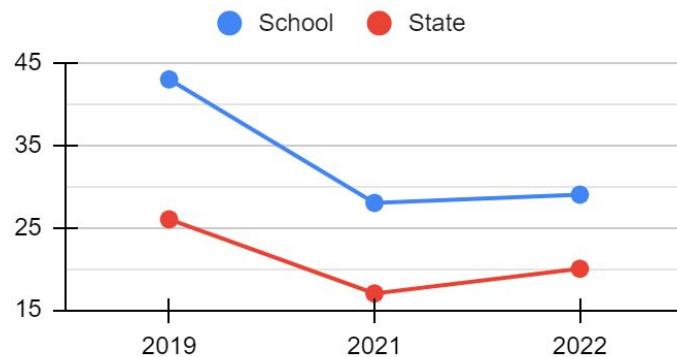
## Grade 10 High Needs 2019-2022



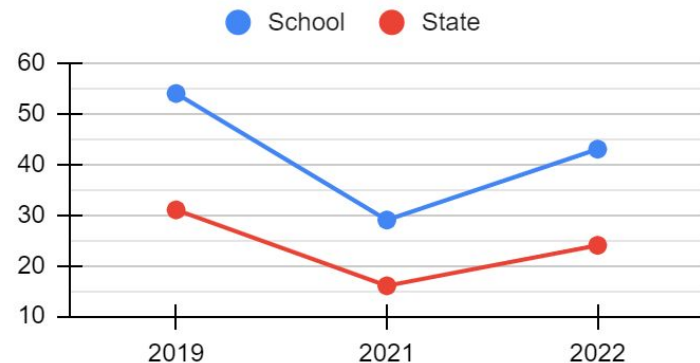
## Grade 8 High Needs 2019-2022



## Grade 7 High Needs 2019-2022

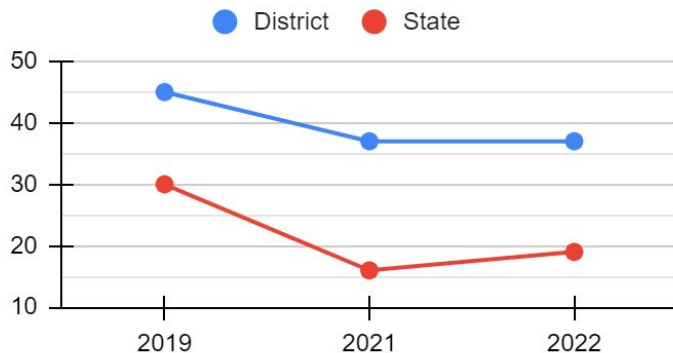


## Grade 6 High Needs 2019-2022

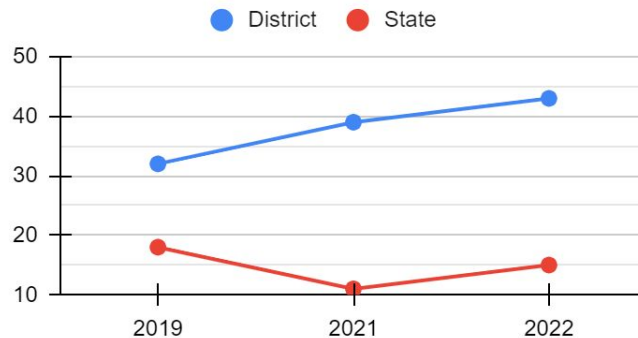


# High Needs 3-Year Growth Math

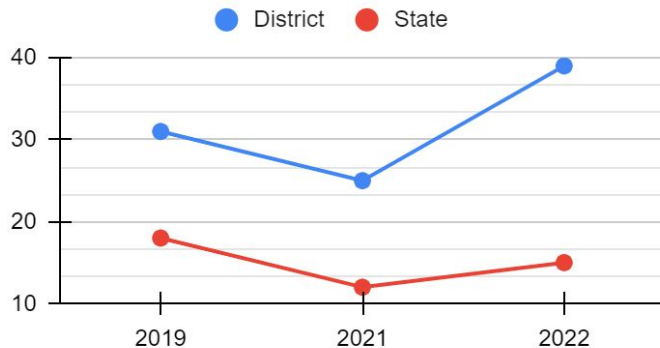
## Grade 5 High Needs 2019-2022



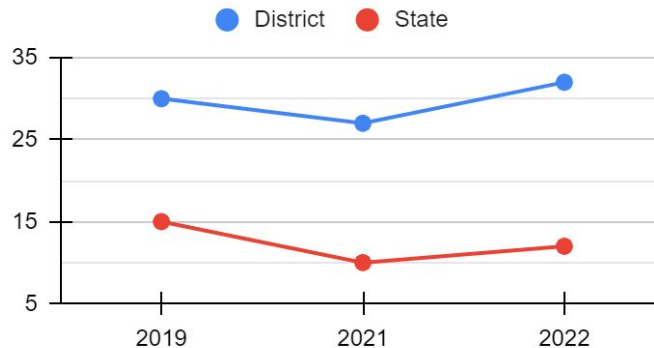
## Grade 4 High Needs 2019-2022



## Grade 3 High Needs 2019-2022



## Grades 3-8 High Needs 2019-2022



# Science MCAS Data

SPRING 2022

# Grade 5 Science



# Science Grade 5

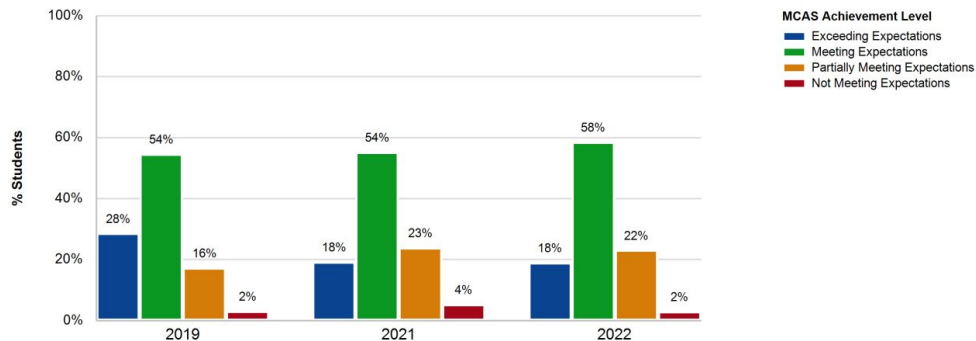
## Achievement Distribution by Year - District



**PE305 District Achievement Distribution by Year**  
Science and Technology/Engineering Grade 5

District : Hingham  
Grade : 05

Student Group : All Students



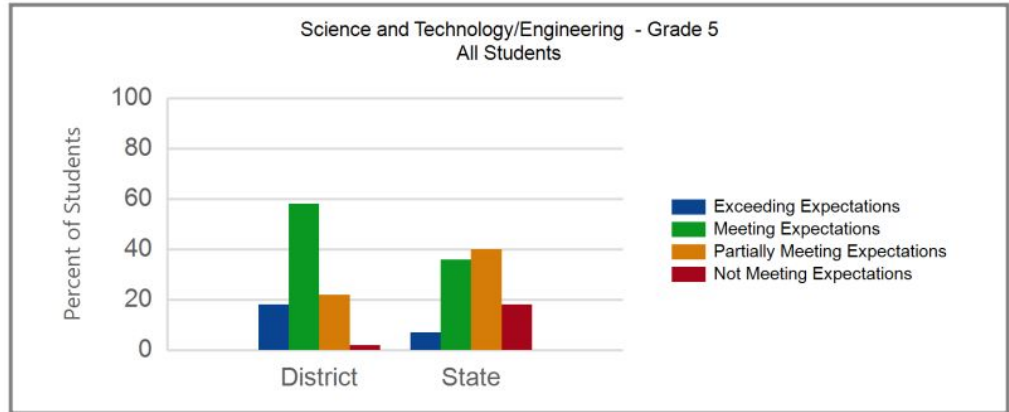
	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	28%	8%	18%	7%	18%	7%
Meeting Expectations	54%	40%	54%	36%	58%	36%
Partially Meeting Expectations	16%	39%	23%	39%	22%	40%
Not Meeting Expectations	2%	12%	4%	19%	2%	18%
Average Scaled Score	518	499	512	494	513	495
N Students	361	72,051	322	65,182	293	65,967
Participation Rate			100%	96%	98%	99%

# Science Grade 5

## Achievement Analysis - All Students

Participation Rate: 98%

Science and Technology/Engineering	N Students Included	% District	% State
Exceeding Expectations	53	18	7
Meeting Expectations	169	58	36
Partially Meeting Expectations	65	22	40
Not Meeting Expectations	6	2	18
<b>Total Included</b>	<b>293</b>		

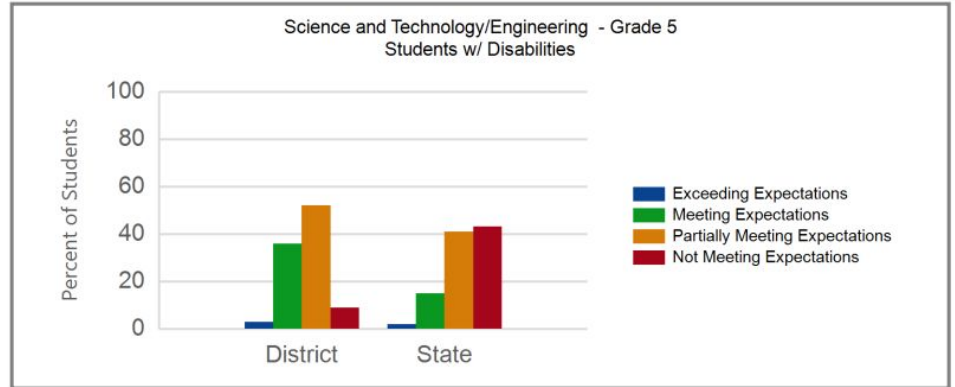


# Science Grade 5

## Achievement Analysis - Disability Status

Participation Rate: 96%

Science and Technology/Engineering	N Students Included	% District	% State
Exceeding Expectations	2	3	2
Meeting Expectations	24	36	15
Partially Meeting Expectations	34	52	41
Not Meeting Expectations	6	9	43
<b>Total Included</b>	<b>66</b>		

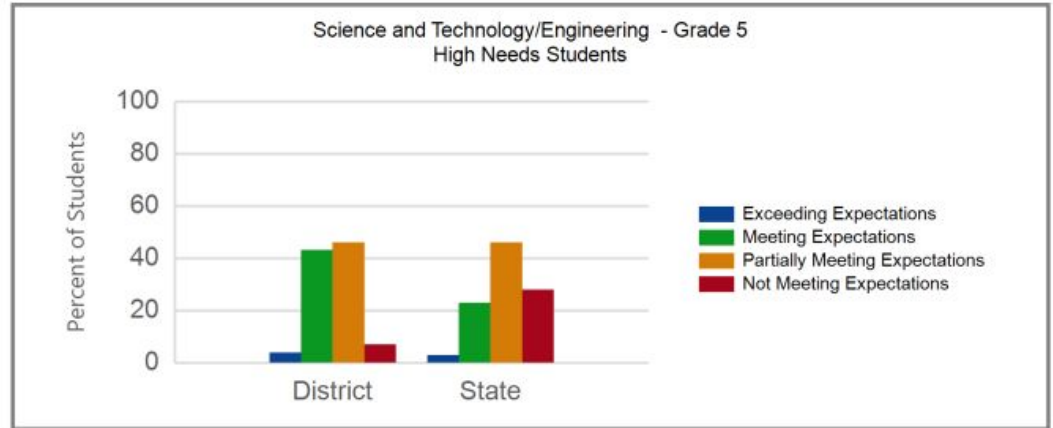


# Science Grade 5

## Achievement Analysis - High Needs

**Participation Rate: 96%**

Science and Technology/Engineering	N Students Included	% District	% State
Exceeding Expectations	3	4	3
Meeting Expectations	35	43	23
Partially Meeting Expectations	38	46	46
Not Meeting Expectations	6	7	28
<b>Total Included</b>	<b>82</b>		



# Science Grade 5

## Curriculum Standards Analysis All Students

All Students (293)

Standards: MA 2016 Standards Test Form: Regular Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Science and Technology/Engineering</b>				
All items	54	70%	56%	14
<b>Question Type</b>				
Constructed Response	16	56%	40%	16
Selected Response	38	76%	63%	13
<b>Domain / Cluster</b>				
<b>Earth and Space Sciences</b>	<b>16</b>	<b>73%</b>	<b>57%</b>	<b>16</b>
Earth and Human Activity	7	75%	62%	13
Earth's Place in the Universe	2	85%	68%	17
Earth's Systems	7	67%	49%	18
<b>Life Science</b>	<b>13</b>	<b>73%</b>	<b>61%</b>	<b>12</b>
Biological Evolution: Unity and Diversity	4	73%	61%	12
Ecosystems: Interactions, Energy, and Dynamics	4	65%	50%	15
From Molecules to Organisms: Structures and Processes	4	77%	65%	12
Heredity: Inheritance and Variation of Traits	1	91%	85%	6
<b>Physical Science</b>	<b>16</b>	<b>67%</b>	<b>54%</b>	<b>13</b>
Energy	5	68%	59%	9
Matter and Its Interactions	2	71%	52%	19
Motion and Stability: Forces and Interactions	5	67%	49%	18
Waves and Their Applications in Technologies for Information Transfer	4	64%	54%	10
<b>Technology/Engineering</b>	<b>9</b>	<b>66%</b>	<b>53%</b>	<b>13</b>
Engineering Design	8	68%	54%	14
Technological Systems	1	54%	43%	11
<b>Science Practices</b>				
Science Practices	41	68%	54%	14

# Science Grade 5

## Curriculum Standards Analysis Disability Status

Students w/ Disabilities Students (66)

Standards: MA 2016 Standards Test Form: Regular Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Science and Technology/Engineering</b>				
All items	54	57%	42%	15
<b>Question Type</b>				
Constructed Response	16	40%	25%	15
Selected Response	38	64%	50%	14
<b>Domain / Cluster</b>				
<b>Earth and Space Sciences</b>	<b>16</b>	<b>61%</b>	<b>42%</b>	<b>19</b>
Earth and Human Activity	7	64%	48%	16
Earth's Place in the Universe	2	74%	51%	23
Earth's Systems	7	54%	33%	21
<b>Life Science</b>	<b>13</b>	<b>59%</b>	<b>46%</b>	<b>13</b>
Biological Evolution: Unity and Diversity	4	64%	51%	13
Ecosystems: Interactions, Energy, and Dynamics	4	45%	33%	12
From Molecules to Organisms: Structures and Processes	4	61%	49%	12
Heredity: Inheritance and Variation of Traits	1	83%	72%	11
<b>Physical Science</b>	<b>16</b>	<b>55%</b>	<b>42%</b>	<b>13</b>
Energy	5	62%	50%	12
Matter and Its Interactions	2	52%	37%	15
Motion and Stability: Forces and Interactions	5	53%	37%	16
Waves and Their Applications in Technologies for Information Transfer	4	48%	42%	6
<b>Technology/Engineering</b>	<b>9</b>	<b>51%</b>	<b>38%</b>	<b>13</b>
Engineering Design	8	53%	39%	14
Technological Systems	1	35%	29%	6
<b>Science Practices</b>				
Science Practices	41	55%	40%	15

# Science Grade 5

## Curriculum Standards Analysis High Needs

High Needs Students (82)

Standards: MA 2016 Standards Test Form: Regular Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Science and Technology/Engineering</b>				
All Items	54	59%	48%	11
<b>Question Type</b>				
Constructed Response	16	42%	32%	10
Selected Response	38	66%	55%	11
<b>Domain / Cluster</b>				
<b>Earth and Space Sciences</b>	<b>16</b>	<b>64%</b>	<b>48%</b>	<b>16</b>
Earth and Human Activity	7	67%	54%	13
Earth's Place in the Universe	2	77%	59%	18
Earth's Systems	7	57%	40%	17
<b>Life Science</b>	<b>13</b>	<b>61%</b>	<b>53%</b>	<b>8</b>
Biological Evolution: Unity and Diversity	4	64%	53%	11
Ecosystems: Interactions, Energy, and Dynamics	4	48%	41%	7
From Molecules to Organisms: Structures and Processes	4	64%	57%	7
Heredity: Inheritance and Variation of Traits	1	84%	79%	5
<b>Physical Science</b>	<b>16</b>	<b>56%</b>	<b>47%</b>	<b>9</b>
Energy	5	62%	54%	8
Matter and Its Interactions	2	55%	44%	11
Motion and Stability: Forces and Interactions	5	55%	42%	13
Waves and Their Applications in Technologies for Information Transfer	4	52%	47%	5
<b>Technology/Engineering</b>	<b>9</b>	<b>54%</b>	<b>44%</b>	<b>10</b>
Engineering Design	8	55%	45%	10
Technological Systems	1	41%	34%	7
<b>Science Practices</b>				
Science Practices	41	57%	46%	11

# Science Grade 5

## Item Analysis - All Students



### IT302 MCAS District and School Test Item Analysis Graph

Spring 2022 MCAS Science and Technology/Engineering 05

All Students

All Students: 293

Test Form: Regular

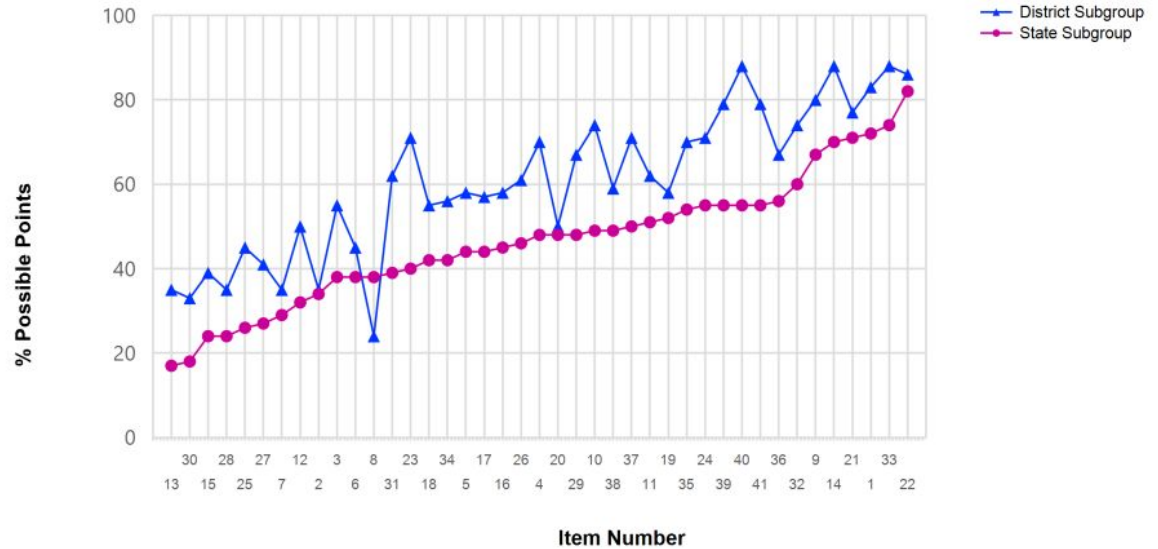




# Science Grade 5

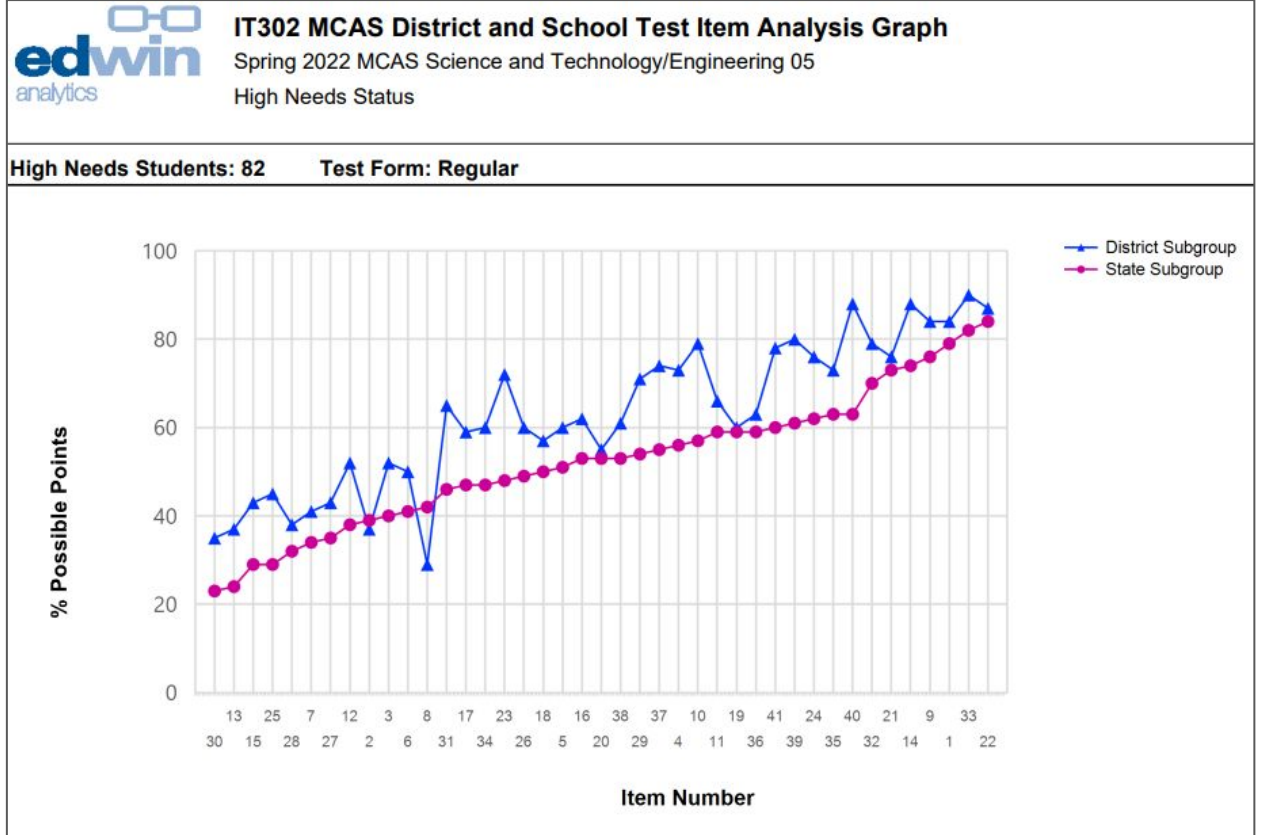
## Item Analysis - Disability Status

Students w/ Disabilities: 66      Test Form: Regular



# Science Grade 5

## Item Analysis - High Needs



# Science Grade 5 - Performance Summary

- 76% earned a score of exceeding/meeting expectations
- All Performed at or above the state on 40 out of 41 test items
  - Areas of strength included: determining & explaining scientific concepts
  - Challenge areas included: creating and analyzing models in order to explain scientific concepts
- SWD performed at or above state average for SWD on 40 out of 41 test items
  - Areas of strength included: interpreting data and explaining scientific concepts
  - Challenge areas included: creating and analyzing models in order to explain scientific concepts
- High needs students performed at or above state average for high needs students on 39 out of 41 test items
  - Areas of strength included: interpreting data and describing scientific concepts
  - Challenge areas included: determining how changing characteristics into a code is encoding (vocabulary); creating and analyzing models in order to explain scientific concepts

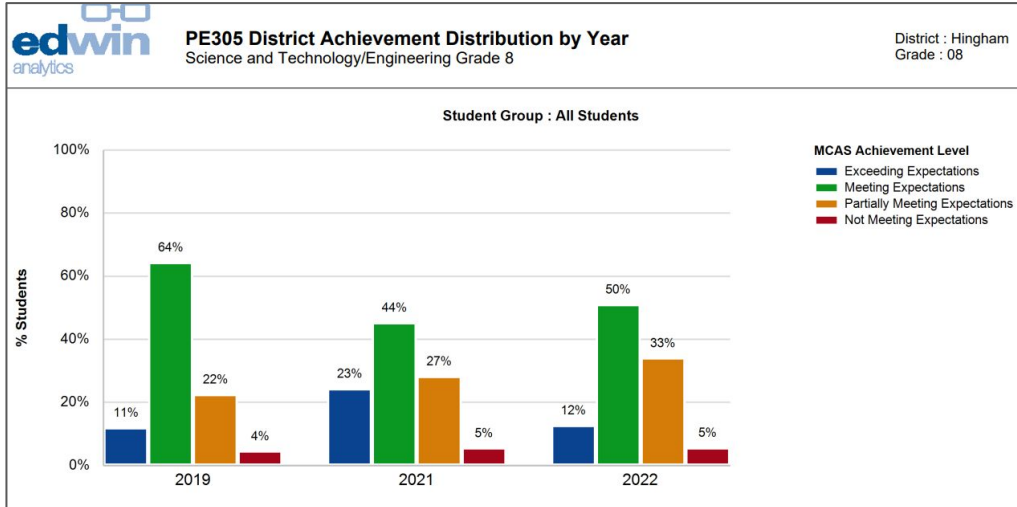
# Elementary Science Action Steps

- Increase emphasis on creating and analyzing models in order to reinforce scientific concepts
- Increase emphasis on open response writing strategies including reading comprehension and addressing each part of a multi-step question
- Increase emphasis on informational text as it related to the new reading pilot in Grades K-5; reorganize scope & sequence to specifically align with reading units.
- Incorporate and reinforce *Keys to Literacy* strategies into science teaching practices specifically strategies to teach and reinforce academic vocabulary

# Grade 8 Science

# Science Grade 8

## Achievement by Distribution Year - District



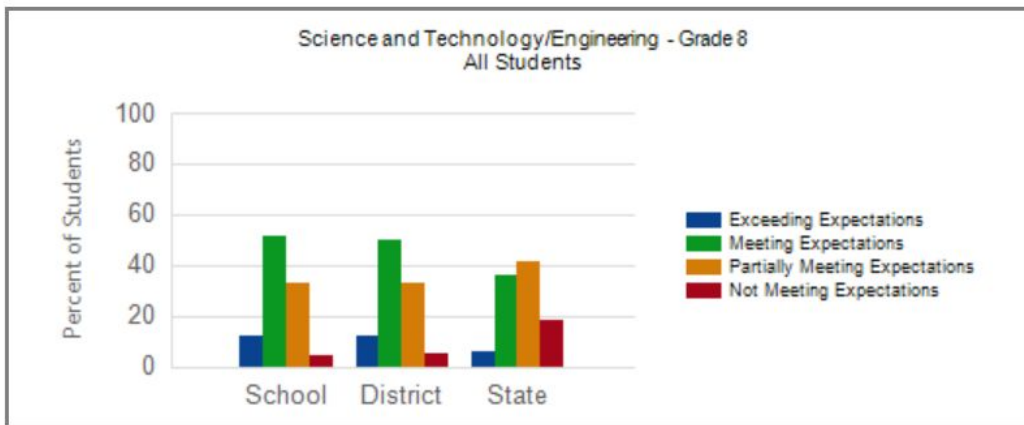
	2019		2021		2022	
	District	State	District	State	District	State
Exceeding Expectations	11%	8%	23%	8%	12%	6%
Meeting Expectations	64%	38%	44%	33%	50%	36%
Partially Meeting Expectations	22%	41%	27%	43%	33%	41%
Not Meeting Expectations	4%	13%	5%	16%	5%	18%
Average Scaled Score	511	498	511	495	507	494
N Students	351	70,516	277	52,827	295	69,571
Participation Rate			98%	91%	97%	97%

# Science Grade 8

## Achievement Analysis - All Students

Participation Rate: 97%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Exceeding Expectations	35	12	12	6
Meeting Expectations	147	51	50	36
Partially Meeting Expectations	94	33	33	41
Not Meeting Expectations	11	4	5	18
<b>Total Included</b>	<b>287</b>			

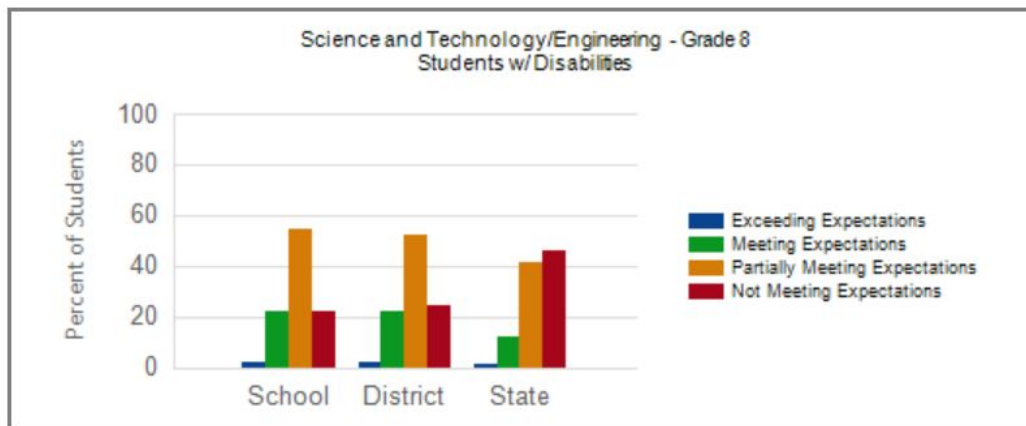


# Science Grade 8

## Achievement Analysis - Disability Status

Participation Rate: 95%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Exceeding Expectations	1	2	2	1
Meeting Expectations	9	22	22	12
Partially Meeting Expectations	22	54	52	41
Not Meeting Expectations	9	22	24	46
<b>Total Included</b>	<b>41</b>			



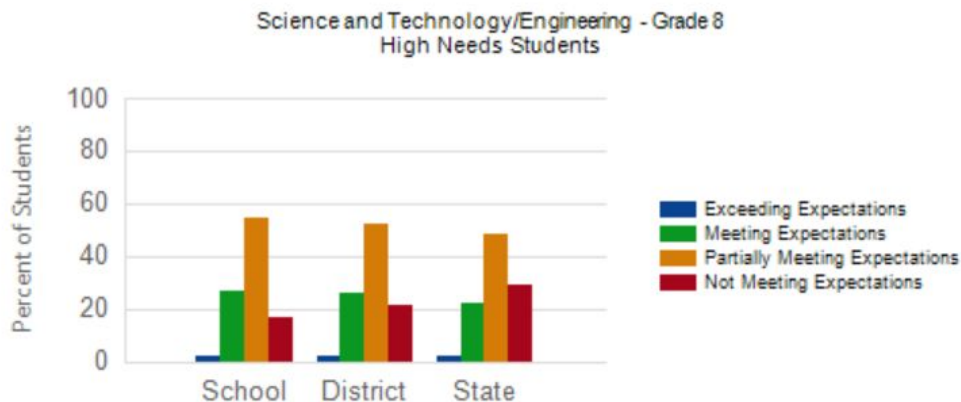


# Science Grade 8

## Achievement Analysis - High Needs

Participation Rate: 96%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Exceeding Expectations	1	2	2	2
Meeting Expectations	14	27	26	22
Partially Meeting Expectations	28	54	52	48
Not Meeting Expectations	9	17	21	29
<b>Total Included</b>	<b>52</b>			



# Science Grade 8

## Curriculum Standards Analysis All Students

All Students (291)

Standards: MA 2016 Standards Test Form: Regular Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Science and Technology/Engineering</b>				
All items	54	62%	51%	11
<b>Question Type</b>				
Constructed Response	16	57%	45%	12
Selected Response	38	64%	54%	10
<b>Domain / Cluster</b>				
<b>Earth and Space Sciences</b>	<b>14</b>	<b>66%</b>	<b>56%</b>	<b>10</b>
Earth and Human Activity	3	72%	62%	10
Earth's Place in the Universe	8	65%	54%	11
Earth's Systems	3	61%	54%	7
<b>Life Science</b>	<b>14</b>	<b>62%</b>	<b>51%</b>	<b>11</b>
Biological Evolution: Unity and Diversity	3	56%	45%	11
Ecosystems: Interactions, Energy, and Dynamics	6	69%	56%	13
From Molecules to Organisms: Structures and Processes	2	74%	65%	9
Heredity: Inheritance and Variation of Traits	3	44%	39%	5
<b>Physical Science</b>	<b>13</b>	<b>53%</b>	<b>42%</b>	<b>11</b>
Energy	4	49%	36%	13
Matter and Its Interactions	5	55%	44%	11
Motion and Stability: Forces and Interactions	2	66%	56%	10
Waves and Their Applications in Technologies for Information Transfer	2	40%	35%	5
<b>Technology/Engineering</b>	<b>13</b>	<b>68%</b>	<b>56%</b>	<b>12</b>
Engineering Design	4	64%	55%	9
Materials, Tools, and Manufacturing	5	66%	56%	10
Technological Systems	4	74%	58%	16
<b>Science Practices</b>				
Science Practices	49	63%	52%	11

# Science Grade 8

## Curriculum Standards Analysis Disability Status

Students w/ Disabilities Students (42)

Standards: MA 2016 Standards Test Form: Regular Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Science and Technology/Engineering</b>				
All items	54	47%	35%	12
<b>Question Type</b>				
Constructed Response	16	38%	26%	12
Selected Response	38	50%	39%	11
<b>Domain / Cluster</b>				
<b>Earth and Space Sciences</b>	<b>14</b>	<b>54%</b>	<b>41%</b>	<b>13</b>
Earth and Human Activity	3	63%	46%	17
Earth's Place in the Universe	8	54%	39%	15
Earth's Systems	3	48%	39%	9
<b>Life Science</b>	<b>14</b>	<b>41%</b>	<b>32%</b>	<b>9</b>
Biological Evolution: Unity and Diversity	3	30%	25%	5
Ecosystems: Interactions, Energy, and Dynamics	6	46%	34%	12
From Molecules to Organisms: Structures and Processes	2	56%	46%	10
Heredity: Inheritance and Variation of Traits	3	29%	26%	3
<b>Physical Science</b>	<b>13</b>	<b>36%</b>	<b>27%</b>	<b>9</b>
Energy	4	33%	23%	10
Matter and Its Interactions	5	37%	26%	11
Motion and Stability: Forces and Interactions	2	48%	37%	11
Waves and Their Applications in Technologies for Information Transfer	2	27%	26%	1
<b>Technology/Engineering</b>	<b>13</b>	<b>55%</b>	<b>41%</b>	<b>14</b>
Engineering Design	4	51%	41%	10
Materials, Tools, and Manufacturing	5	53%	40%	13
Technological Systems	4	63%	42%	21
<b>Science Practices</b>				
Science Practices	49	47%	35%	12

# Science Grade 8

## Curriculum Standards Analysis High Needs

High Needs Students (54)

Standards: MA 2016 Standards Test Form: Regular Show results with <10 students: No

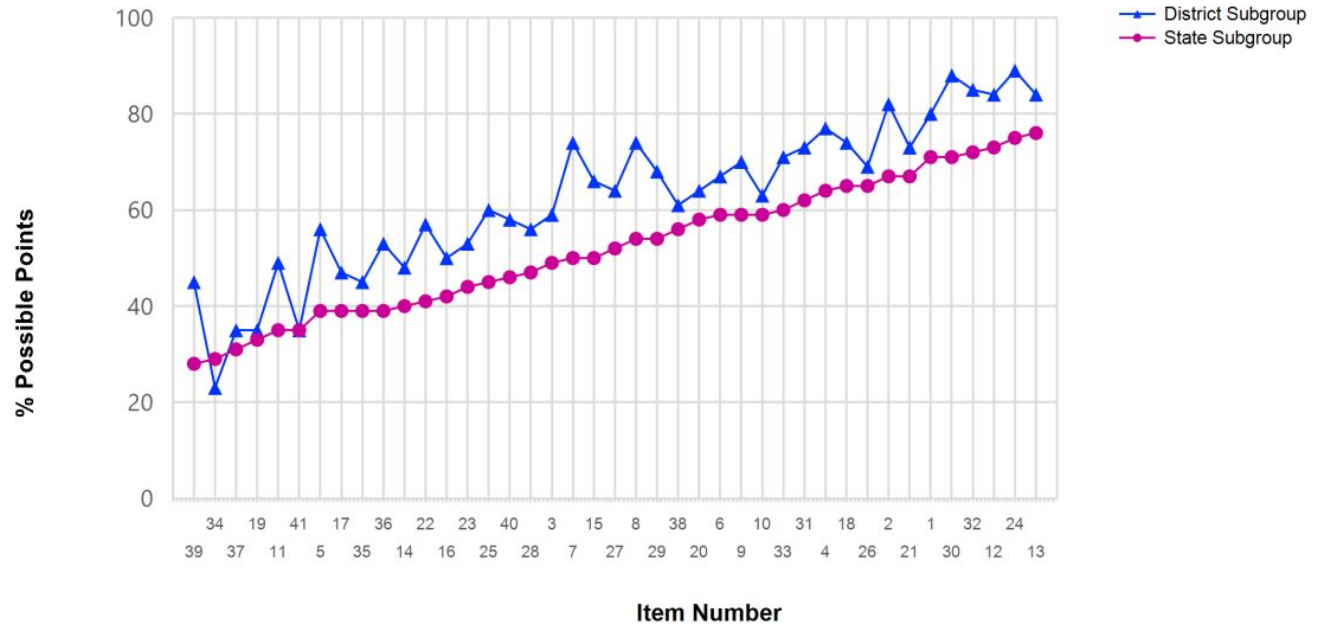
	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>Science and Technology/Engineering</b>				
All items	54	48%	42%	6
<b>Question Type</b>				
Constructed Response	16	41%	35%	6
Selected Response	38	51%	45%	6
<b>Domain / Cluster</b>				
<b>Earth and Space Sciences</b>	<b>14</b>	<b>55%</b>	<b>47%</b>	<b>8</b>
Earth and Human Activity	3	61%	52%	9
Earth's Place in the Universe	8	54%	45%	9
Earth's Systems	3	50%	45%	5
<b>Life Science</b>	<b>14</b>	<b>43%</b>	<b>41%</b>	<b>2</b>
Biological Evolution: Unity and Diversity	3	36%	34%	2
Ecosystems: Interactions, Energy, and Dynamics	6	50%	45%	5
From Molecules to Organisms: Structures and Processes	2	57%	56%	1
Heredity: Inheritance and Variation of Traits	3	28%	31%	-3
<b>Physical Science</b>	<b>13</b>	<b>38%</b>	<b>33%</b>	<b>5</b>
Energy	4	35%	29%	6
Matter and Its Interactions	5	38%	33%	5
Motion and Stability: Forces and Interactions	2	51%	45%	6
Waves and Their Applications in Technologies for Information Transfer	2	29%	28%	1
<b>Technology/Engineering</b>	<b>13</b>	<b>57%</b>	<b>47%</b>	<b>10</b>
Engineering Design	4	52%	47%	5
Materials, Tools, and Manufacturing	5	56%	47%	9
Technological Systems	4	63%	48%	15
<b>Science Practices</b>				
Science Practices	49	48%	42%	6

# Science Grade 8

## Item Analysis - All Students

All Students: 291

Test Form: Regular



# Science Grade 8

## Item Analysis - Disability Status



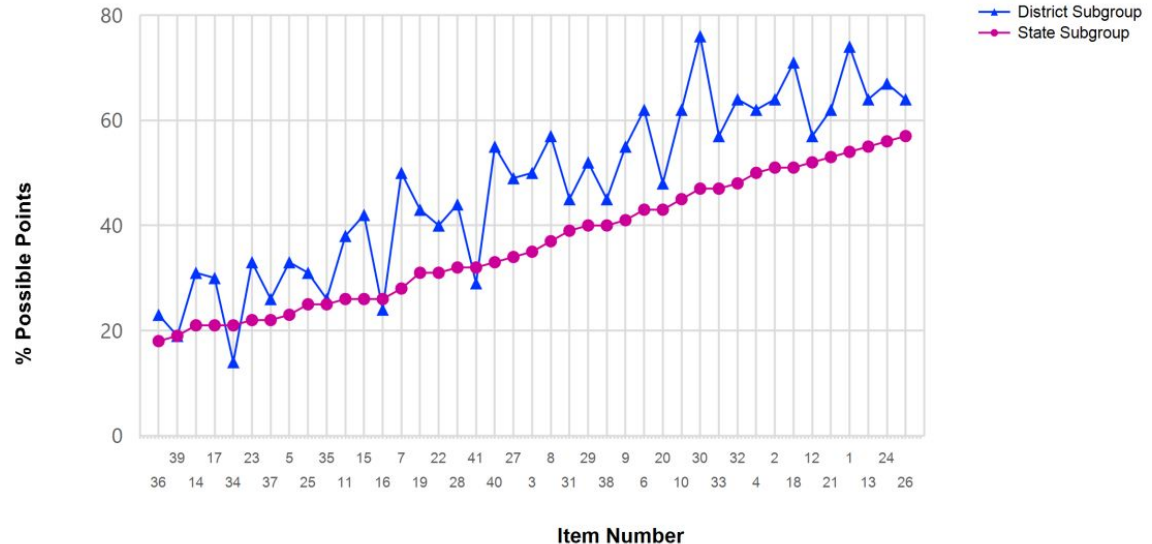
### IT302 MCAS District and School Test Item Analysis Graph

Spring 2022 MCAS Science and Technology/Engineering 08

Disability Status

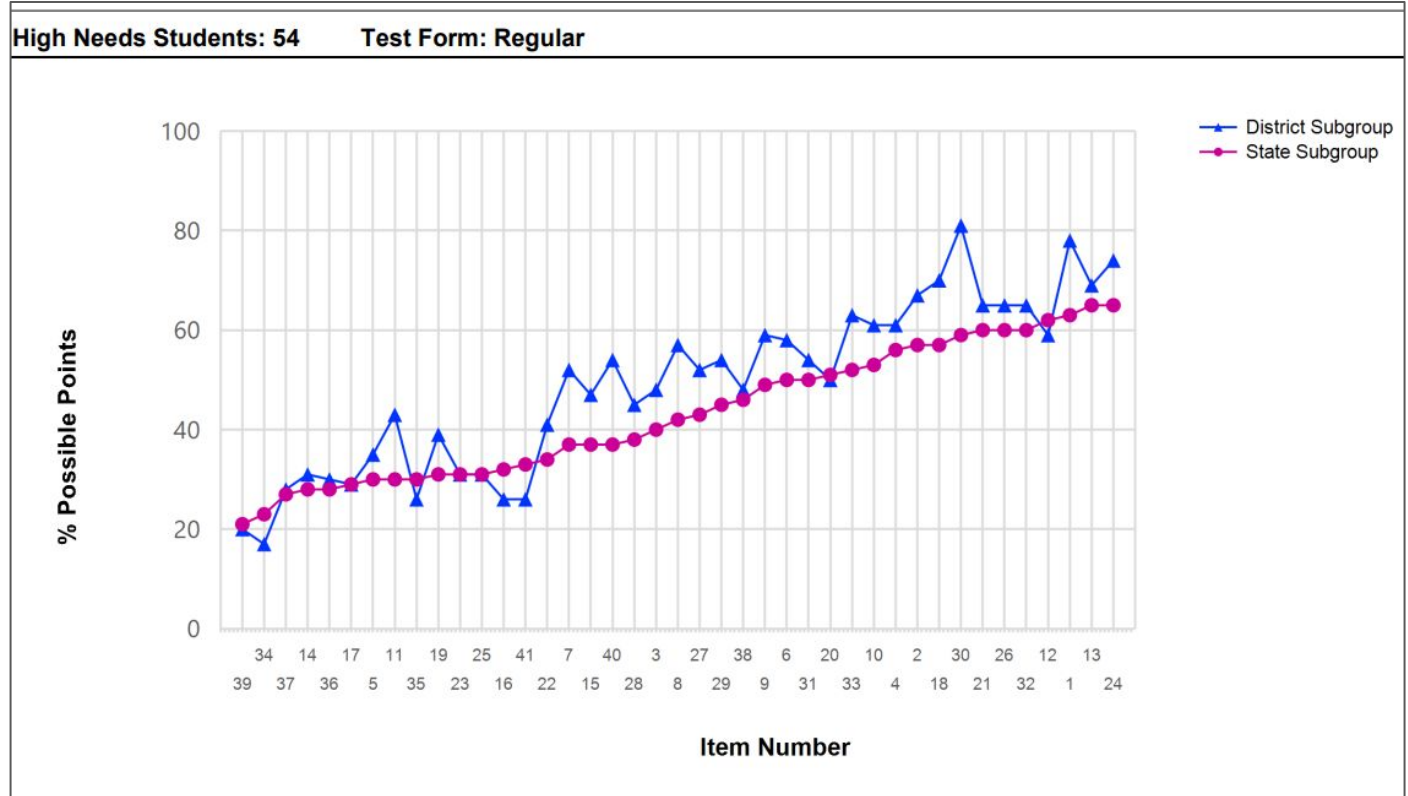
Students w/ Disabilities: 42

Test Form: Regular



# Science Grade 8

## Item Analysis - High Needs



# Science Grade 8 - Performance Summary

- 63% earned a score of exceeding/meeting expectations
- All Performed at or above the state on 40 out of 41 test items
  - Areas of strength included: determining and explaining scientific concepts
  - Challenge areas included: comparing and analyzing models
- SWD performed at or above state average for SWD on 38 out of 41 test items
  - Areas of strength included: determining and explaining scientific concepts
  - Challenge areas included: comparing and analyzing models
- High needs students performed at or above state average for high needs students on 34 out of 41 test items
  - Areas of strength included: determining and explaining scientific concepts
  - Challenge areas included: comparing and analyzing models; analyzing and interpreting data; drawing conclusions from analyzed data



# Middle School Science Action Steps

- Pilot and implement OpenSciEd curriculum in Grades 6-8. This curriculum will:
  - Increase emphasis on data and analysis practices by including opportunities to create and analyze data tables & graphs
  - Increase emphasis on determining evidence to support a claim
- Increase emphasis on open response writing strategies including reading comprehension and addressing each part of a multi-step question
  - Incorporate Keys to Literacy strategies into science teaching practices

# Grade 10 Science

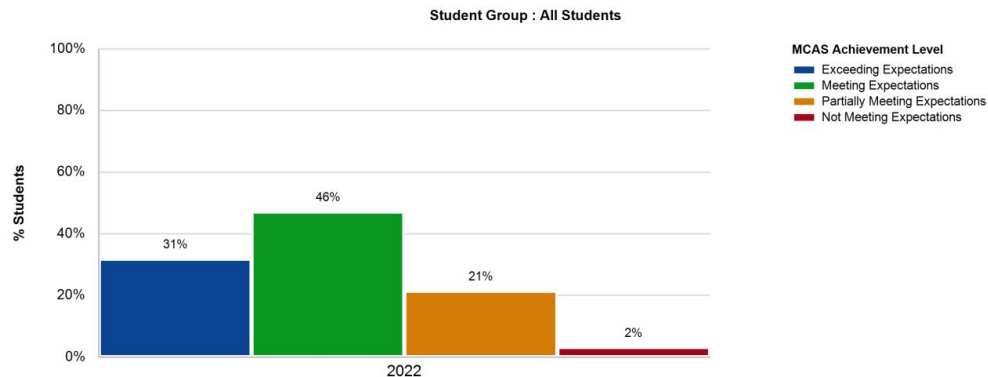
# Science Grade 10

## Achievement by Distribution Year - District (HS Biology 9,10)



**PE305 District Achievement Distribution by Year**  
HS Biology HS (09, 10)

District : Hingham  
Grade : HS



	2022	
	District	State
Exceeding Expectations	31%	11%
Meeting Expectations	46%	34%
Partially Meeting Expectations	21%	40%
Not Meeting Expectations	2%	16%
Average Scaled Score	519	497
N Students	268	55,498

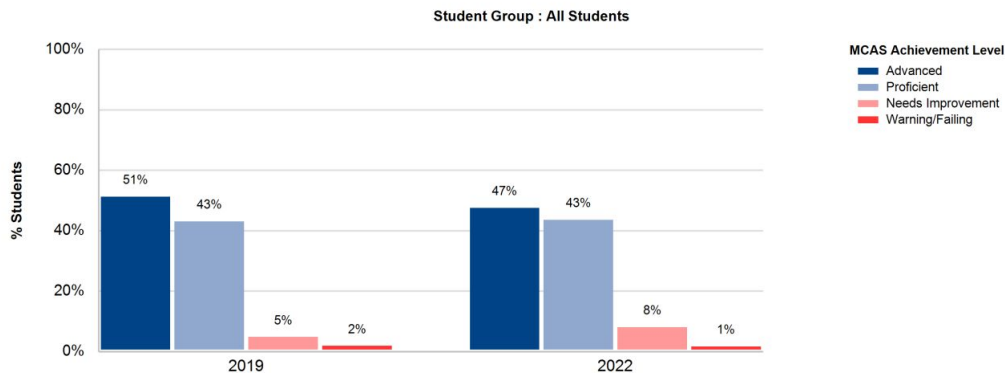
# Science Grade 10

## Achievement by Distribution Year - District (\*Legacy Scale Gr. 10\*)



**PE305 District Achievement Distribution by Year**  
Science and Technology/Engineering (Grade 10\*)On Legacy Scale Grade 10

District : Hingham  
Grade : 10



	2019		2021	2022	
	District	State	State	District	State
CPI	98	89		97	83
Advanced	51%	30%		47%	21%
Proficient	43%	44%		43%	41%
Needs Improvement	5%	20%		8%	28%
Warning/Failing	2%	5%		1%	10%
N Students	306	68,517	128	279	64,948

# Science Grade 10

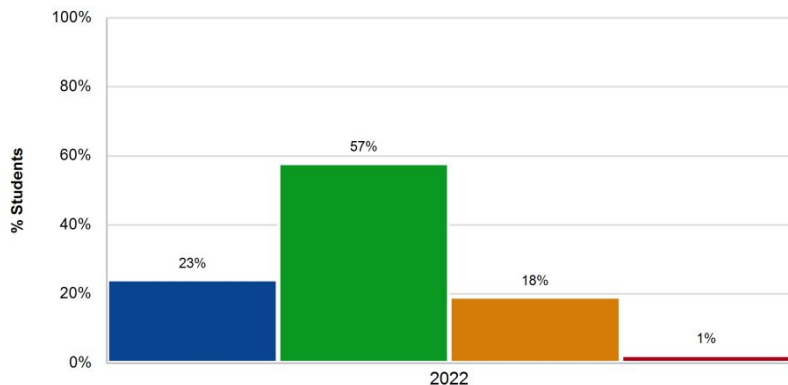
## Achievement by Distribution Year - District (\*NextGen Scale\*)



**PE305 District Achievement Distribution by Year**  
Science and Technology/Engineering (Grade 10\*)On NextGen Scale Grade 10

District : Hingham  
Grade : 10

Student Group : All Students



**MCAS Achievement Level**  
■ Exceeding Expectations  
■ Meeting Expectations  
■ Partially Meeting Expectations  
■ Not Meeting Expectations

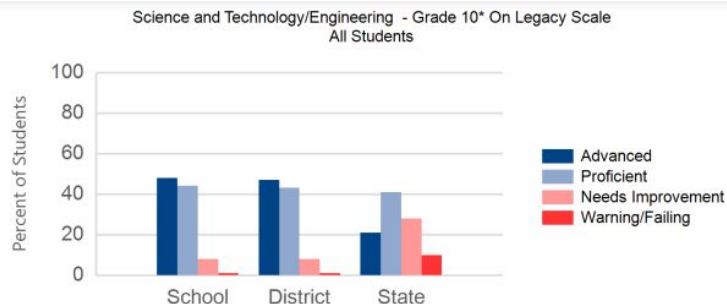
	2022	
	District	State
Exceeding Expectations	23%	9%
Meeting Expectations	57%	38%
Partially Meeting Expectations	18%	40%
Not Meeting Expectations	1%	14%
Average Scaled Score	517	499
N Students	279	64,948

# Science Grade 10

## Achievement Analysis - All Students

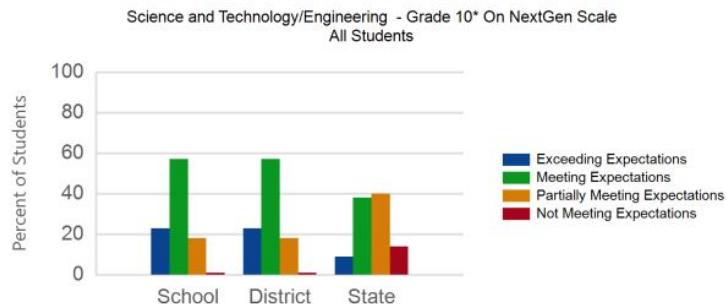
Participation Rate: 98%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Advanced	132	48	47	21
Proficient	121	44	43	41
Needs Improvement	22	8	8	28
Warning/Failing	2	1	1	10
<b>Total Included</b>	<b>277</b>			



Participation Rate: 98%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Exceeding Expectations	65	23	23	9
Meeting Expectations	159	57	57	38
Partially Meeting Expectations	51	18	18	40
Not Meeting Expectations	2	1	1	14
<b>Total Included</b>	<b>277</b>			

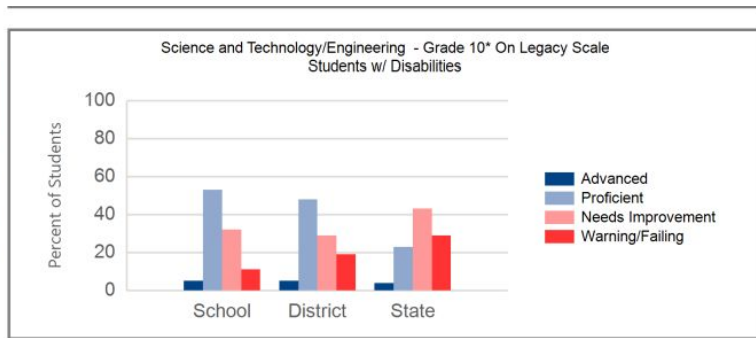


# Science Grade 10

## Achievement Analysis - Disability Status

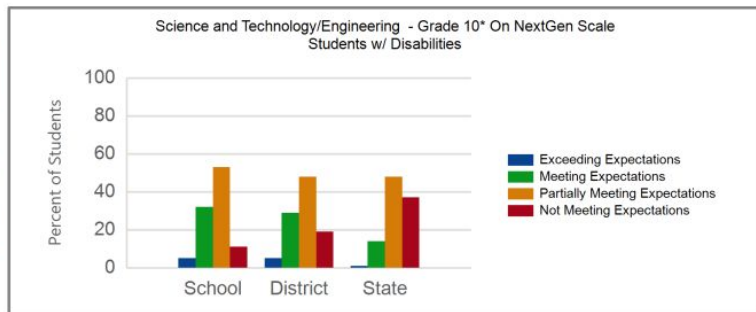
Participation Rate: 90%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Advanced	1	5	5	4
Proficient	10	53	48	23
Needs Improvement	6	32	29	43
Warning/Failing	2	11	19	29
<b>Total Included</b>	<b>19</b>			



Participation Rate: 90%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Exceeding Expectations	1	5	5	1
Meeting Expectations	6	32	29	14
Partially Meeting Expectations	10	53	48	48
Not Meeting Expectations	2	11	19	37
<b>Total Included</b>	<b>19</b>			

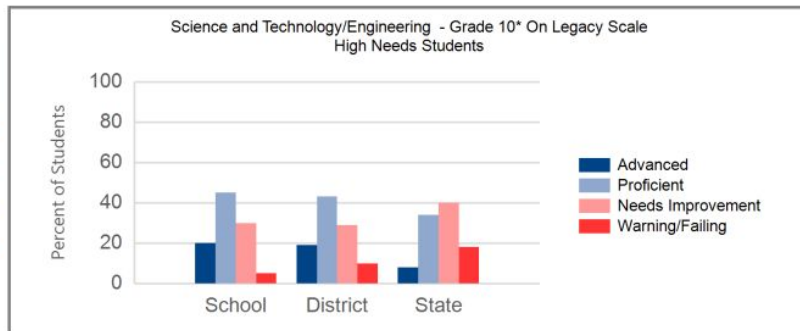


# Science Grade 10

## Achievement Analysis - High Needs

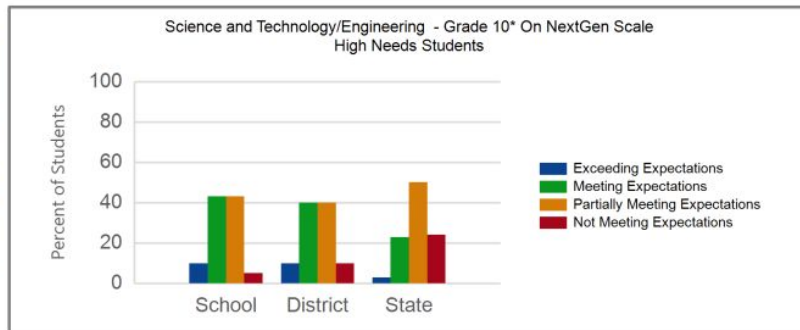
Participation Rate: 95%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Advanced	8	20	19	8
Proficient	18	45	43	34
Needs Improvement	12	30	29	40
Warning/Failing	2	5	10	18
<b>Total Included</b>	<b>40</b>			



Participation Rate: 95%

Science and Technology/Engineering	N Students Included	% School	% District	% State
Exceeding Expectations	4	10	10	3
Meeting Expectations	17	43	40	23
Partially Meeting Expectations	17	43	40	50
Not Meeting Expectations	2	5	10	24
<b>Total Included</b>	<b>40</b>			





# Science Grade 10

## Curriculum Standards Analysis All Students



### CU306 Spring 2022 Preliminary MCAS District and School Results by Standards

HS Biology All Students

District: Hingham  
School: Not Applicable  
Grade: HS (09, 10)

All Students (265)

Standards: MA 2016 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>HS Biology</b>				
All items	60	71%	53%	18
<b>Question Type</b>				
Constructed Response	18	66%	45%	21
Selected Response	42	73%	56%	17
<b>Domain / Cluster</b>				
<b>Biology</b>	<b>60</b>	<b>71%</b>	<b>53%</b>	<b>18</b>
Ecology	12	73%	56%	17
Evolution	12	72%	56%	16
Heredity	15	66%	49%	17
Molecules to Organisms	21	73%	52%	21
<b>Science Practices</b>				
Science Practices	45	72%	53%	19

# Science Grade 10

## Curriculum Standards Analysis Disability Status



### CU306 Spring 2022 MCAS District and School Results by Standards

HS Biology by Disability Status

District: Hingham  
School: Not Applicable  
Grade: HS (09, 10)

Students w/ Disabilities Students (23)

Standards: MA 2016 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>HS Biology</b>				
All items	60	47%	37%	10
<b>Question Type</b>				
Constructed Response	18	35%	26%	9
Selected Response	42	52%	42%	10
<b>Domain / Cluster</b>				
<b>Biology</b>	<b>60</b>	<b>47%</b>	<b>37%</b>	<b>10</b>
Ecology	12	55%	39%	16
Evolution	12	49%	40%	9
Heredity	15	40%	35%	5
Molecules to Organisms	21	46%	35%	11
<b>Science Practices</b>				
Science Practices	45	47%	38%	9

# Science Grade 10

## Curriculum Standards Analysis High Needs



### CU306 Spring 2022 MCAS District and School Results by Standards HS Biology by High Needs Status

District: Hingham  
School: Not Applicable  
Grade: HS (09, 10)

High Needs Students (46)

Standards: MA 2016 Standards Show results with <10 students: No

	Possible Points	District % Possible Points	State % Possible Points	District/State Diff
<b>HS Biology</b>				
All items	60	58%	43%	15
<b>Question Type</b>				
Constructed Response	18	50%	34%	16
Selected Response	42	61%	47%	14
<b>Domain / Cluster</b>				
<b>Biology</b>	<b>60</b>	<b>58%</b>	<b>43%</b>	<b>15</b>
Ecology	12	61%	46%	15
Evolution	12	61%	47%	14
Heredity	15	51%	40%	11
Molecules to Organisms	21	59%	42%	17
<b>Science Practices</b>				
Science Practices	45	58%	43%	15

# Science Grade 10

## Item Analysis - All Students

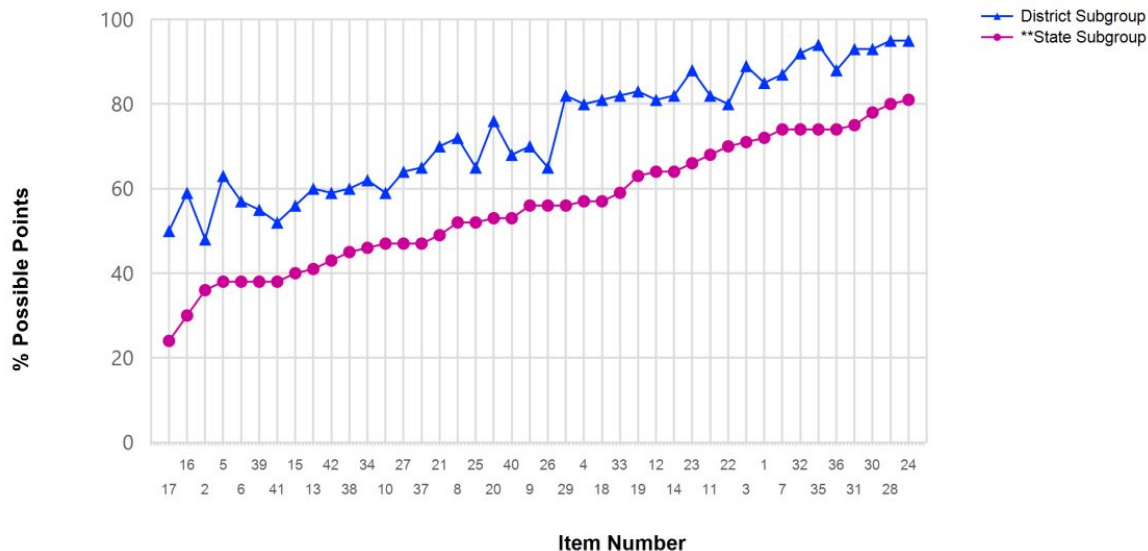


### IT302 MCAS District and School Test Item Analysis Graph

Spring 2022 MCAS HS Biology HS

All Students

All Students: 265



# Science Grade 10

## Item Analysis - Disability Status

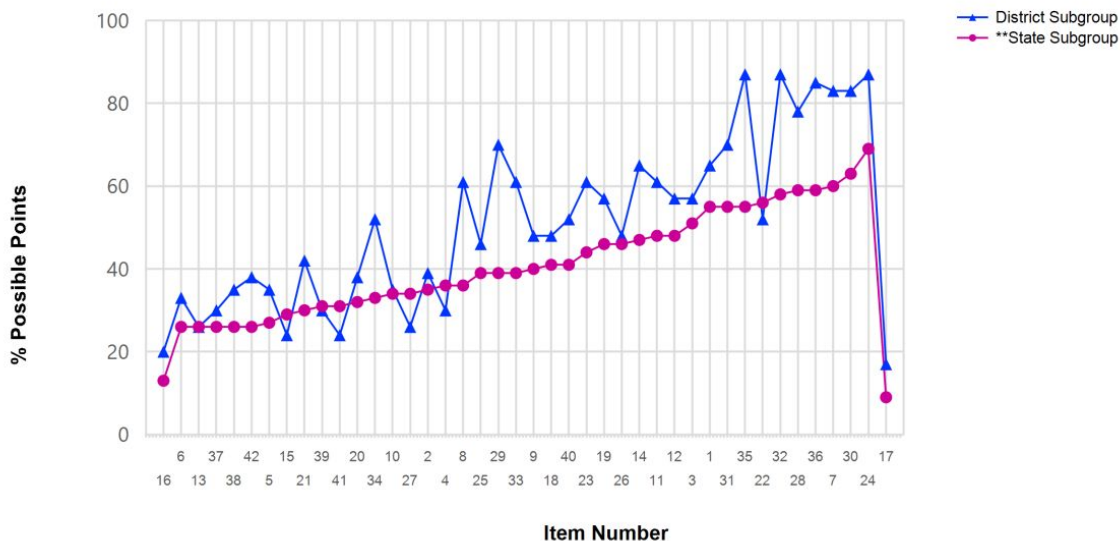


### IT302 MCAS District and School Test Item Analysis Graph

Spring 2022 MCAS HS Biology HS

Disability Status

Students w/ Disabilities: 23



# Science Grade 10

## Item Analysis - High Needs



### IT302 MCAS District and School Test Item Analysis Graph

Spring 2022 MCAS HS Biology HS

High Needs Status

High Needs Students: 46



# Science Grade 10 - Performance Summary

- 80% earned a score of exceeding/meeting expectations
- All Performed at or above the state on 42 out of 42 test items
  - Areas of strength included: determining and explaining scientific concepts; analyzing data
  - Challenge areas included: determining best evidence to draw conclusions
- SWD performed at or above state average for SWD on 36 out of 42 test items
  - Areas of strength included: analyzing and comparing models
  - Challenge areas included: *determining and explaining scientific concepts; determining best evidence to draw conclusions*
- High needs students performed at or above state average for high needs students on 42 out of 42 test items
  - Areas of strength included: *analyzing and comparing models*
  - Challenge areas included: *determining and explaining scientific concepts; determining best evidence to draw conclusions*

# High School Science Action Steps

- Increase emphasis on determining evidence to support a claim
- Increase emphasis on open response writing strategies including reading comprehension and addressing each part of a multi-step question





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To: School Committee

From: Margaret Adams, Superintendent of Schools  
Kathryn Roberts, Assistant Superintendent  
Mary Andrews, Director of ELA  
Dave Jewett, Director of Mathematics  
Michelle Romano, Director of Science

Date: November 14, 2022

Subject: MCAS 2022 Analysis

## **Define the Issue/Question:**

The following document will outline the MCAS assessment data in grades 3-10 from the spring of 2022.

The following questions guide the analysis that is included in this report:

- How did students perform on MCAS, including subgroups, in the spring of 2022?
- How did the pandemic impact MCAS performance for all students in spring 2022?
- How does the 2022 data compare to that of previous years?
- What are the next steps to support the acceleration of student learning?

## **Brief Overview/Background Information:**

In the spring of 2020, The Department of Elementary and Secondary Education (Department) published the [Acceleration Roadmap](#) to support teachers and leaders in implementing a learning acceleration approach during the 2021-2022 school year. These high-leverage recommendations and targeted resources and is organized around three overarching priorities are still relevant as we transition to post pandemic this school year including:

1. Fostering a sense of belonging and partnership among students and families,
2. Continuously monitoring students' understanding, and
3. Ensuring strong grade-appropriate instruction with just-in-time scaffolds when they are needed.

The following report is meant to provide the school committee and the community a snapshot of MCAS results in 2022 administered in the spring. Statewide results indicate some signs of learning loss recovery. However, progress was uneven across grade levels, subject areas, and sub-groups. On average, the state reports math scores have increased slightly, ELA scores declined, and science scores increased slightly. In ELA, the impact of lower writing scores and early literacy challenges was apparent in the data. Student absenteeism remains a challenge across the state for recovery efforts. The impact of the pandemic was apparent at the statewide level as well as in our own MCAS data.

Starting in 2017, in general, the achievement level for the Next Generation MCAS results are reported in four categories as listed below, including the definition of each level.

Achievement Level	Scaled Score	Definition
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. 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	440-469	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.

According to the Massachusetts Department of Elementary and Secondary Education, the results of the 2021 MCAS can be compared to previous years' results at the state, district, school, and student group levels. However, it is essential to note that in grades 3-8, students each took a shorter test. In addition, some students took one half of a test and others took a different half. When reviewing results at the aggregate level at the state, district, school, or student group level, comparisons to previous test administrations are reasonable. When considering the results with past administrations, the participation rates and size of the student groups are important considerations.

When reviewing 2021 data, because students in grades 3-8 were given one session of the test instead of two sessions, individual student performance may vary more than usual compared to previous years. These variations even out as groups of students are aggregated, but the difference is essential when viewing individual results. Moving forward, the state advises reviewing the spring 2022 MCAS data as a benchmark for comparison in subsequent years.

In addition, we reviewed the data for instances where disproportionality may exist for particular subgroups. If something is disproportionate, it means it is unequal or out of proportion. When reviewing MCAS data, we specifically compared data for all students with results of different

subgroups, specifically our high needs and students with disabilities. In addition to the next steps outlined below for content areas, the district is taking the following actions to support the achievement of subgroups:

- East and Plymouth River are participating in the Massachusetts Department of Elementary and Secondary Education Inclusive Academy. The three year institute is focused on professional development on implementing Universal Design for Learning (UDL) principles to support all students in accessing core tier one instruction.
- The Leadership Team has focused our monthly meetings on the principles of UDL and how to reduce barriers in our learning environment to provide for access to all learners. As we strengthen our knowledge of UDL, we will begin to share these principles with staff.
- The high school is participating in year one of a DESE System of Supports Institute that will provide professional development and coaching to implement tiered supports across academic and mental health.
- In grades K-8, the district is outlining specifically the current tiered systems of support in social emotional learning, math and literacy. As we document these practices, we are also reviewing and refining the systems, schedules, and resources needed to implement the supports. The district will use data collected this fall and then again throughout the year to respond to students' needs.
- The district is currently undergoing an equity audit to help identify current strengths and areas of need to support a development of a plan. In addition, the district is participating in the first of a three year institute with the DESE Culturally Responsive Practices Leadership Academy that will provide professional development to the district's Diversity Equity Task Force in implementing an equity plan.
- The Special Education department also continues to strengthen support for students with disabilities including the implementation of technology tools to support the development of student goals and progress monitoring tools.

## **English Language Arts**

**The following general conclusions may be drawn from a review of the ELA MCAS data:**

- With an average of 73% Meeting/Exceeding on the Grades 3-8 ELA MCAS for 2022, Hingham ranked 5th in the state. (Behind 1st place Lexington at 75%, and a three-way tie for second place by Belmont, Hopkinton, and Weston at 74%.)
- Pre-pandemic Grades 3-8 ELA MCAS 2019 had an average of 10% more students scoring in the Meeting/Exceeding range with a total of 83%. Though this general drop does indicate some areas of regression, overall the pandemic learning losses were largely mitigated relative to the state's performance.
- With an average 90% Meeting/Exceeding on the Grade 10 ELA MCAS for 2022, Hingham is first in the state according to data by district. When looking specifically at HHS with 91% Meeting/Exceeding, the school ranked 3rd in the state tied with Boston Latin Academy, and behind Boston Latin School at 96% for 1st place, and just after Bromfield Academy at 92% for 2nd place.
- HHS actually saw a 1% increase from a 2019 ELA MCAS pre-pandemic Meeting/Exceeding score of 90%.
- In tracking SWD cohorts from 2019 to 2022 we can observe some grade-level gains ranging from +1% to +6%, as well as some grade-level losses ranging from -3% to -7%.
- In tracking HN student cohorts from 2019 to 2022 we can observe some grade-level gains ranging from +1% to +5%, as well as some grade-level losses ranging from -1% to -7%.
- In examining data pertaining to subgroup 2022 performance on specific standards and

actual exam items, on the whole HN cohorts demonstrated more deficits than SWD cohorts. These findings were evident in grades 3, 4, 7 and most notably grade 8 when compared against the state's subgroup performance.

- While the state-wide essay writing average dropped 18% from pre-pandemic assessments. Hingham did not suffer anywhere near those same losses. Our changes in the domain of writing from 2019 - 2022 were as follows: Grade 3, -6%; Grade 4, -5%; Grade 5, -4%; Grade 6, -4%; Grade 7, -3%; Grade 8, +5%; Grade 10, +2%.

## **Grade-Specific ELA Results**

### **Grade 3:**

- 71% of ALL students Meeting/Exceeding for District; 44% of ALL students Meeting/Exceeding for State.
- Compared to the state, Grade 3 ELA students as a whole performed 13% higher in the language domain, 11% higher in the reading domain, and a noteworthy 20% higher in the writing domain. They also performed above the state average on all 31 test items.
- Compared to the state, Grade 3 ELA SWD performed 13% higher in the language domain, 9% higher in the reading domain, and 13% higher in the writing domain. This subgroup performed above the state average on 28 of 31 test items. The most significant challenge areas were identifying a main idea and naming the effect of a repeated phrase.
- Compared to the state, Grade 3 ELA HN students performed 10% higher in the language domain, 6% higher in the reading domain, and 15% higher in the writing domain. This subgroup performed above the state average on 27 of 31 test items. The most significant challenge was discerning a passage's main idea.

### **Grade 4:**

- 72% of ALL students Meeting/Exceeding for District; 38% of ALL students Meeting/Exceeding for State.
- Compared to the state, Grade 4 ELA students as a whole performed 15% higher in the language domain, 14% higher in the reading domain, and a noteworthy 17% higher in the writing domain. They also performed above the state average on 30 of 31 test items.
- Compared to the state, Grade 4 ELA SWD performed 10% higher in the language domain, 12% higher in the reading domain, and 12% higher in the writing domain. This subgroup performed above the state average on 26 of 31 test items. The most significant challenge areas were identifying a theme and determining the role of an illustration.
- Compared to the state, Grade 4 ELA HN students performed 7% higher in the language domain, 8% higher in the reading domain, and 10% higher in the writing domain. This subgroup performed above the state average on 23 of 31 test items. The most significant challenge areas were determining the role of an illustration and the importance of a specific section of a passage in relation to the larger text.

### **Grade 5:**

- 71% of ALL students Meeting/Exceeding for District; 41% of ALL students Meeting/Exceeding for State.
- Compared to the state, Grade 5 ELA students as a whole performed 17% higher in the language domain, 11% higher in the reading domain, and a noteworthy 21% higher in the writing domain. They also performed above the state average on all 31 test items.
- Compared to the state, Grade 5 ELA SWD performed 19% higher in the language domain, 18% higher in the reading domain, and 14% higher in the writing domain. This

- subgroup performed above the state average on all 31 test items.
- Compared to the state, Grade 5 ELA HN students performed 12% higher in the language domain, 10% higher in the reading domain, and 12% higher in the writing domain. This subgroup performed above the state average on all 31 test items.

#### **Grade 6**

- 78% of ALL students Meeting/Exceeding for District; 41% of ALL students Meeting/Exceeding for State.
- Compared to the state, HMS Grade 6 ELA students as a whole performed 23% higher in the language domain, 12% higher in the reading domain, and a noteworthy 26% higher in the writing domain. They also performed above the state average on all 31 test items.
- Compared to the state, HMS Grade 6 ELA SWD performed 19% higher in the language domain, 14% higher in the reading domain, and 16% higher in the writing domain. This subgroup performed above the state average on all 31 test items.
- Compared to the state, HMS Grade 6 ELA HN students performed 14% higher in the language domain, 9% higher in the reading domain, and 14% higher in the writing domain. This subgroup performed above the state average on 30 of 31 test items. The most significant challenge area involved drawing an inference.

#### **Grade 7**

- 75% of ALL students Meeting/Exceeding for District; 41% of ALL students Meeting/Exceeding for State.
- Compared to the state, HMS Grade 7 ELA students as a whole performed 21% higher in the language domain, 12% higher in the reading domain, and a noteworthy 23% higher in the writing domain. They also performed above the state average on all 32 test items.
- Compared to the state, HMS Grade 7 ELA SWD performed 23% higher in the language domain, 13% higher in the reading domain, and 22% higher in the writing domain. This subgroup performed above the state average on all 32 test items.
- Compared to the state, HMS Grade 7 ELA HN students performed 16% higher in the language domain, 7% higher in the reading domain, and 17% higher in the writing domain. This subgroup performed above the state average on 28 of 32 test items. The most significant challenge areas involved drawing an inference and analyzing sentence structure.

#### **Grade 8**

- 74% of ALL students Meeting/Exceeding for District; 42% of ALL students Meeting/Exceeding for State.
- Compared to the state, HMS Grade 8 ELA students as a whole performed 17% higher in the language domain, 8% higher in the reading domain, and a noteworthy 25% higher in the writing domain. They also performed above the state average on 30 of 31 test items. Challenge area was making a comparison across passages.
- Compared to the state, HMS Grade 8 ELA SWD performed 16% higher in the language domain, 9% higher in the reading domain, and 16% higher in the writing domain. This subgroup performed above the state average on 30 of 31 test items. Challenge area included identifying differences in characters' attitudes.
- Compared to the state, HMS Grade 8 ELA HN students performed 9% higher in the language domain, 2% higher in the reading domain, and 11% higher in the writing domain. This subgroup performed above the state average on 21 of 31 test items. The most significant challenge areas involved identifying symbolic images, and comparing characters' attitudes and experiences across passages.

## **Grade 10**

- 91% of ALL students Meeting/Exceeding for District; 58% of ALL students Meeting/Exceeding for State.
- Compared to the state, HHS Grade 10 ELA students as a whole performed 15% higher in the language domain, 11% higher in the reading domain, and a noteworthy 21% higher in the writing domain. They also performed above the state average on all 30 test items.
- Compared to the state, HHS Grade 10 ELA SWD performed 20% higher in the language domain, 9% higher in the reading domain, and 20% higher in the writing domain. This subgroup performed above the state average on 27 of 30 test items. The most significant challenge areas included determining tone and comparing paragraph function across two different texts.
- Compared to the state, HHS Grade 10 ELA HN students performed 16% higher in the language domain, 9% higher in the reading domain, and 17% higher in the writing domain. This subgroup performed above the state average on all 30 test items.

## **Next Steps in Elementary ELA:**

- Adopt a new, fully-aligned K-5 reading program for Fall 2023.
- Continue our focus on optimizing MTSS efficacy in grades K-5.
- Implement iReady screener as well as the product's accompanying myPath lessons targeting specific skill and standard deficits in Grades 3-5.
- Continue development of common writing-across-the-curriculum tasks in science and social studies.
- Collaborate with special educators, reading specialists, and interventionists to review MCAS data and plan strategies for remediating subgroups' challenge areas.
- Increase consistent implementation of *Empowering Writers* strategies in crafting narrative, expository, and opinion pieces.
- Train reading specialists in *Keys to Literacy* strategies to optimize push-in support outcomes, especially in the areas of vocabulary and comprehension.

## **Next Steps in Middle School ELA:**

- Prioritize building MTSS efficacy in grades 6-8 through Tier 2 interventions provided by Reading Lab courses and other supports.
- Train reading specialists in *Keys to Literacy* strategies to initiate push-in coaching support, especially in the areas of academic vocabulary and comprehension.
- Expand access for push-in support from writing specialist to accommodate all class periods.
- Collaborate with special educators, reading specialists, and interventionists to review MCAS data and plan strategies for remediating subgroups' challenge areas.
- Continue vertical articulation of a grammar program targeting grade-level language standards
- Implement literature circles that generate interest in independent reading while targeting key academic standards.

## **Next Steps in High School ELA:**

- Maintain the current robust writing program requiring 15 pieces of writing per year, representing an array of modes, purposes, and lengths.



- Maintain reading selections that demand proficiency with a representative range of text complexity.
- Continue vertical articulation of a grammar program targeting grade-level language standards.
- Collaborate with special educators and reading specialist to review MCAS data and plan strategies for remediating subgroups' challenge areas.
- Expand implementation of literature circles that generate interest in independent reading while targeting key academic standards.

## **Mathematics**

### **Elementary Math Conclusions**

Overall, elementary scores indicate an average of 71% of grades 3-5 of all students are meeting or exceeding expectations. For students with disabilities, in grades 3-5, 38% are meeting or exceeding expectations. For high needs students, 43% of students meeting or exceeding expectations.

- When looking at all students across all three grades, our students were at or above the state average on every question.
- The Students with Disabilities subgroup across all three grades were at or above the state average on every question with the exception of 2 questions at each grade level with the following focus areas:
  - Grade 3
    - Perimeter and maximum area of shapes
    - Rewriting a whole number as a fraction
  - Grade 4
    - Creating an equivalent fraction by finding a denominator
    - 4 digit subtraction while critiquing the work of others
  - Grade 5
    - Comparing mixed numbers and decimals to each other.
    - Determine volume using cubes to recreate a shape
- Our High Needs subgroup was below the state average on 1 question in grade 3, 3 questions in grade 4, and 1 question in grade 5 with the following focus areas:
  - Grade 3
    - Perimeter and maximum area of shapes
  - Grade 4
    - Creating an equivalent fraction by finding a denominator
    - 4 digit subtraction while critiquing the work of others
    - Identifying shapes by parallel and perpendicular sides
  - Grade 5
    - Determine volume of two overlapping prisms
- The three year comparison the state average shows growth in all three grades from 2019 to 2022. Grade 5 was 29 points above the state in 2019, 34 above the state in 2021, and 35 points above the state in 2022. Grade 4 was 26 points above the state in 2019, 33 points above in 2021, and 34 points above in 2022. Grade 3 was 22 points above the state average in 2019, 24 points above in 2021, and 24 points above in 2022.

Both grades 4 and 5 showed a clear strength with students Meeting and Exceeding Expectations.

- Grade 3 scores are not quite as strong overall, but the last two years each show the greatest differential between the district and the state in at least 15 years. The goal, however, is to see a return to levels of Meeting and Exceeding that cross the 70% threshold or above.

There are a multitude of elementary initiatives that aim to support elementary learning and instruction.

- The continued development and focus of the elementary MTSS program allows staff to address student knowledge gaps in a more direct, cohesive, and equitable fashion.
- The implementation of the iReady diagnostic assessments is providing nationally normed data to use as a resource for data driven decision making. The MyPath digital instructional tool addresses individual student needs whether that be filling knowledge gaps, providing extra on grade-level work, or extending student learning.
- The entire elementary teaching staff is participating in a year-long professional development series focused on implementing a math workshop model into the instructional teaching block.
- The Elementary Math Specialists have returned to an instructional coaching model to provide continued embedded professional development for the classroom teaching staff. The Elementary Math Interventionists and the Elementary Math Specialists participated in two different professional development courses that focused on Early Numerical Reasoning and Fractional Understanding.

## **Middle School Math Conclusions**

### **Grade 6**

The three year trend for Grade 6 students in the Meeting and Exceeding categories also follows a similar trend to the state from 2019 to 2022. In 2019, 85% of grade 6 students were Meeting and Exceeding which was 34 points above the state average. In 2020, Grade students in Meeting and Exceeding dropped to 64% but still 30 points higher than the state average. In 2021, the scores began to rise again with 76% of students in the Meeting and Exceeding category which was again 34 points above the state average. The grade 6 students scored above the state on every question with the special education cohort scoring below the state on only 1 question. On the questions with the least differential between HMS Grade 6 students and the state, there was a continuing theme of writing expressions, identifying equivalent expressions, and applying standards to “real world context.” This trend was consistent for our special education cohort as well.

The item analysis and standards analysis have been reviewed and discussed with the grade 6 team. Students struggled with real world problems and questions that required application. Students struggled with problems relating equivalent expressions to each other.

### **Grade 7**



The 2019 Grade 7 results showed that the Math 7 students performed at or below the state on 24 questions which put a unique focus on that course during the 2019-20 school year. That school year was shortened due to COVID with no MCAS results. The focus of the subsequent two school years was to anchor the curriculum into the norms that had been developed over time so that teachers could make consistent judgments about student performance and needs to be addressed. In 2019, grade 7 had 75% of students in the Meeting and Exceeding categories. This was 27 points higher than the state average. In 2021, that number was 60% for HMS, 25 points above the state average. In 2022, Meeting and Exceeding in grade 7 increased 3% to 63% which is again 25% above the state average. In general, the trend of our grade 7 students matches the overall trends for the state. That being said, our original goal that was put on hold during COVID, was to increase the scores for our Math 7 cohort. The grade 7 teachers are piloting two different grade 7 programs this year, DESMOS and Big Ideas, in an effort to better address the grade level standards.

A general overview of the item analysis saw that we performed at or below the state on only one question, #34 which focused on a cross-section of a three dimensional figure). There is also a relative area for growth in finding equivalent expressions where we scored only 7-8 points higher than the state average on multiple questions. Our special education cohort scored at or below the state average on 4 questions. An evaluation of these specific questions shows a need for close reading. This is a unique problem where many of the skills we teach in pencil and paper (underlining, highlighting, circling key terms) do not translate as well to the digital format and may need more explicit digital practice. Problem #20 focuses on square area but gives units in both inches and feet, with a need to convert one of the two units. Problem #19 is a reading heavy question that focuses on writing an equation from written information. Problem #14 entails developing a proportional equation. The question uses  $c$  as the cost but the other item in the problem is “cans.” This could easily lead to specifically choosing one of the incorrect answers provided in the multiple choice. The High Needs subgroup showed relative areas of needed improvement that matched the Students with Disabilities subgroup but also included a technology rich question about the distributive property. The item analysis and curriculum analysis have been shared and discussed with the grade 7 team.

## **Grade 8**

In eighth grade, we have an accelerated program that opens the door to calculus for a majority of our students. To accomplish this, grade 7 students in Pre-Algebra learn the 7<sup>th</sup> and 8<sup>th</sup> grade standards in one school year as prescribed by the state. In grade 8, Algebra students are uniquely focused on algebra curriculum and hence are not as “current” on the grade 8 standards. In this case, students when taking the MCAS focused on 8th grade standards may not be as current. Reviewing and spiraling of the 8th grade standards into the course will support retention of these concepts.

Math 8 course covered the 8th grade standards but in less depth. We have often slowed the curriculum to ensure that students have more time to work on foundational skills with integers, simplifying polynomials, creating algebraic expressions and equations as a foundation for problem solving, and solving equations. However, by doing so, not all of the 8th grade standards

were covered. Thus, when students took the MCAS, they had less exposure to some of the concepts assessed. This year, the Math 8 course will cover all of the 8th grade standards.

The eighth grade students also had less coverage of specific geometry standards both when they were in seventh and eighth grade. This cohort was in 7<sup>th</sup> grade during the hybrid school year. It was not possible to cover every topic in depth that year and we made decisions to focus on the Algebra and Number and Operation standards first. In doing so, we cut transformations and the angle sum theorem from the Pre-Algebra curriculum. Those were 8<sup>th</sup> grade standards but they are taught in depth again during Geometry at the High School. The decision was to move slower on these topics during the high school course when this cohort were freshmen. Ultimately, there were 9 questions from these standards on the grade 8 MCAS. The accelerated Algebra 1 – Quadratic Emphasis cohort, who did not see this material in grade 7, scored below their peers taking the grade level Math 8 with Algebra course on 8 of the 9 questions. This most certainly had a significant impact on the overall grade 8 scores.

Lastly, the on grade level Math 8 with Algebra class was an area that we had previously targeted for improvement. We piloted the DESMOS curriculum to increase the rigor around the grade level curriculum and to excite and engage students. Recognizing that comparing cohort to cohort is particularly complex, especially given the nature of student learning through COVID, the 2022 Math 8 with Algebra students showed large gains on the MCAS. In 2019, students in that course scored at or below the state average on 20 questions. In 2022, that number dropped to 7 questions below the state average.

The following are next steps for the middle school:

- This year after the pandemic, the math department will return to emphasizing the math practices with a focus on perseverance and growth mindset. These are specific skills that students struggle with when they are asked to solve complex math problems that require application.
- This year, we are implementing a new grade 8 curriculum. Grade 8 Math 8 with Algebra course is in its second year of piloting the DESMOS curriculum. Math 8 course is in the first year of piloting the DESMOS curriculum. The benefit of the curriculum is designed with low floor, high ceiling math tasks and design with Universal Design in mind. The interactive nature of the investigation also has strengthened student engagement.
- Next year, we will plan to implement one class of Math 8. Currently, we have two classes Math 8 and Math 8 with Algebra. This will allow students taking Math 8 to have equal access to all the eighth grade standards.
- Students in eighth grade specifically struggled on Geometry standards on the MCAS. This year, we will target MCAS review of transformations for grade 8 students taking Algebra 1.
- Currently, the math team in seventh grade is piloting two curriculums, DESMOS and Big Ideas. This will allow us to increase coherence and rigor across all of the seventh grade classes for Math 7 courses.
- The middle school will clearly articulate the MTSS approach to the math interventions, clearly articulating the curriculum and criteria for each tier of instruction.

## **High School Math Conclusions**

Overall, in grade 10 all students passed except two. Ninety-one percent of students met or exceeded expectations in grade 10. Some general themes emerged in reviewing test items included the following:

- The district outpaced the state on every question with only 3 questions (28, 36, and 15) being less than 10 points higher than the state achievement level. Our special education subgroup had 8 questions where they performed at or below the state and our High Needs population had 2.
- In some cases, special education and high needs students struggled with questions that required close reading and application of concepts.
- For all students, there can be an increased focus on transformations, particularly on dilation and rotation/reflection of line segments.
- Additionally, a noted theme for our special education subgroup was lower scores on geometry questions where a diagram was not provided with the initial question.

The following are next steps for the middle school:

- The math department has reviewed and discussed both the standards analysis and item analysis. That discussion included strategies for addressing the transformation, drawing diagrams, and framing questions as “which of the following is not always true.”
- The math department will continue to provide an after school Algebra 1 support class, an after school MCAS support class for sophomores, and individual tutoring for the small number of students who do not pass the grade 10 MCAS on the first try.
- The math department will continue to use ALEKS, a technology math application, in Algebra 1 to provide individualized instruction opportunities.

## **Science, Technology, and Engineering**

The Spring 2022 Science, Technology, and Engineering MCAS scores across the state indicated a small recovery in 2022. When looking at this year’s test scores, it is important to keep in mind that due to the pandemic, there were variations in how the MCAS was administered over the last few years. Those variations are described below:

- 2019: Full tests in grades 3-8 and High School
- 2020: No MCAS administered
- 2021: Half test in grades 3-8; full test in High School
- 2022: Full tests in grades 3-8 and High School

It is also important to note that Spring 2022 was the first administration of the next-generation high school biology and introductory physics test so this year’s results are not comparable to previous years. The grade 5 and 8 next-generation science MCAS has been administered since 2019, so this year’s results are comparable to previous years, specifically 2019 as that was the last year that a full test was administered in those tested grades.

Also important to note that the grade 5 and 8 next-generation science MCAS is cumulative in that students are tested on standards that are covered in grades 3-5 for the grade 5 MCAS and standards that are covered in grades 6-8 for the grade 8 MCAS.

### Science MCAS Conclusions

The following conclusions can be drawn from a review of the MCAS Science data across all grade levels:

- Overall science scores indicate modest recovery in 2022 (across all districts & the state)
- HPS students continue to excel with a high percentage of students meeting and/or exceeding expectations.
  - Grade 5 - 76%
  - Grade 8 - 63%
  - HS Biology - 80%
- Across all levels, students excelled at *determining and explaining scientific concepts and interpreting data*.
- Across all levels, students struggled with *creating and analyzing models in order to explain scientific concepts and make arguments from evidence*.

### Elementary Science Conclusions

The following conclusions can be drawn from a review of the MCAS Science elementary data:

- 76% of all students earned a score of exceeding/meeting expectations.
- All students performed at or above the state on 40 out of 41 test items.
  - Areas of strength included: *determining & explaining scientific concepts*
  - Challenge areas included: *creating and analyzing models in order to explain scientific concepts*
- Students with disabilities performed at or above the state average for SWD on 40 out of 41 test items.
  - Areas of strength for students with disabilities included: *interpreting data and explaining scientific concepts*
  - Challenge areas for students with disabilities included: *creating and analyzing models in order to explain scientific concepts*
- High-needs students performed at or above the state average for high-needs students on 39 out of 41 test items.
  - Areas of strength for high needs students included: *interpreting data and describing scientific concepts*
  - Challenge areas for high needs students included: *determining how changing characteristics into a code is called encoding (vocabulary); creating and analyzing models in order to explain scientific concepts*

Our goal is to move all students to meeting and/or exceeding expectations. In order to achieve this goal, our next steps are as follows:

- Increase emphasis on creating and analyzing models in order to reinforce scientific concepts.
- Increase emphasis on open-response writing strategies including reading comprehension and addressing each part of a multi-step question.
- Increase emphasis on informational text as it related to the new reading pilot in Grades K-5
  - This would include reorganizing the elementary science scope & sequence to

- specifically align with reading units.
- Incorporate and reinforce *Keys to Literacy* strategies into science teaching practices specifically strategies to teach and reinforce academic vocabulary.

### **Middle School Science Conclusions**

The following conclusions can be drawn from a review of the MCAS Science middle school data:

- 63% of all students earned a score of exceeding/meeting expectations.
- All students performed at or above the state on 40 out of 41 test items.
  - Areas of strength included: *determining and explaining scientific concepts*
  - Challenge areas included: *comparing and analyzing models*
- Students with disabilities performed at or above the state average for students with disabilities on 38 out of 41 test items.
  - Areas of strength for students with disabilities included: *determining and explaining scientific concepts*
  - Challenge areas for students with disabilities included: *comparing and analyzing models*
- High-needs students performed at or above the state average for high-needs students on 34 out of 41 test items.
  - Areas of strength included: *determining and explaining scientific concepts*.
  - Challenge areas included: *comparing and analyzing models; analyzing and interpreting data; drawing conclusions from analyzed data*.

Our goal is to move all students to meeting and/or exceeding expectations. In order to achieve this goal, our next steps are as follows:

- Pilot and implement OpenSciEd curriculum in Grades 6-8.

*Open Sci Ed is an innovative, high-quality fully developed curriculum that is currently available for grades 6 -8. The Open Sci Ed curriculum aligns with the Next Generation of Science Standards (NGSS) and the Massachusetts Curriculum Frameworks. This program was developed using research on how students learn and what motivates them to learn. Students are actively involved in science talks, the collection and analysis of scientific data, and designing solutions to real-life problems. The goal of piloting OpenSciEd units is to slowly implement them and their practices into our middle school science classrooms at all grade levels.*

The OpenSciEd curriculum pilot will:

- Increase emphasis on data and analysis practices by including opportunities to create and analyze data tables & graphs
- Increase emphasis on determining evidence to support a claim
- Increase emphasis on open-response writing strategies including reading comprehension and addressing each part of a multi-step question.
  - Incorporate *Keys to Literacy* teaching strategies into science teaching practices.

### **High School Science Conclusions**

The following conclusions can be drawn from a review of the MCAS Biology data. It is important to note that Spring 2022 was the first administration of the next-generation high school biology and introductory physics test so this year's results are not comparable to previous years.

- 80% of all students earned a score of exceeding/meeting expectations
- All students performed at or above the state on 42 out of 42 test items.
  - Areas of strength included: *determining and explaining scientific concepts; analyzing data.*
  - Challenge areas included: *determining the best evidence to draw conclusions*
- Students with disabilities performed at or above the state average for students with disabilities on 36 out of 42 test items.
  - Areas of strength included: *analyzing and comparing models*
  - Challenge areas included: *determining and explaining scientific concepts; determining the best evidence to draw conclusions*
- High-needs students performed at or above the state average for high needs students on 42 out of 42 test items.
  - Areas of strength included: *analyzing and comparing models*
  - Challenge areas included: *determining and explaining scientific concepts; determining the best evidence to draw conclusions*

Our goal is to move all students to meeting and/or exceeding expectations. In order to achieve this goal, our next steps are as follows:

- Increase emphasis on determining evidence to support a claim
- Increase emphasis on open-response writing strategies including reading comprehension and addressing each part of a multi-step questions

## 2022 MCAS Comparable Districts Overview

The following represents data for all students for the 2022 MCAS with comparable districts. Source: [DESE DART Tool](#).

					% Meeting or Exceeding Expectations					Growth Average SGP			
					Grades 3-8		Grade 10		Grades 5 and 8	Grades 3-8		Grade 10	
District Names	Total Enrollment	Low Income %	SWD	ELL %	ELA	Math	ELA	Math	Science	ELA	Math	ELA	Math
Duxbury	2,811	9.0%	12.9%	0.5%	59%	56%	75%	74%	63%	53	48	48	67
Groton-Dunstable	2,315	11.5%	15.8%	1.2%	60%	60%	77%	84%	67%	51	49	55	66
Hingham	3,864	8.3%	15.5%	0.4%	73%	67%	90%	81%	69%	59	52	52	61
Medfield	2,530	8.8%	13.0%	1.3%	68%	70%	83%	83%	72%	55	58	64	60
Norwell	2,186	6.2%	16.1%	0.4%	62%	64%	81%	84%	67%	51	54	55	58
Reading	3,846	11.6%	18.8%	1.1%	61%	57%	77%	68%	66%	57	56	54	60
Scituate	2,772	12.8	16.7%	0.4%	61%	59%	79%	70%	63%	51	44	54	56
Sharon	3,537	12.9%	15.5%	3.1%	63%	68%	76%	75%	71%	51	54	64	56
Wellesley	4,290	7.4%	17.1%	1.8%	72%	71%	82%	83%	71%	57	54	51	71
Westford	4,669	9.7%	16.3	1.9%	65%	71%	84%	81%	71%	55	59	64	65
Winchester	4,362	7.3%	16.4%	3.1%	69%	68%	89%	83%	74%	54.	58	61	56

The following represents data for students with disabilities for the 2022 MCAS with comparable districts. Source: [DESE DART Tool](#).

					% Meeting or Exceeding Expectations					Growth Average SGP			
					Grades 3-8		Grade 10		Grades 5 and 8	Grades 3-8		Grade 10	
District Names	Total Enrollment	Low Income %	SWD	ELL %	ELA	Math	ELA	Math	Science	ELA	Math	ELA	Math
Duxbury	2,811	9.0%	12.9%	0.5%	23%	24%	31%	40%	38%	48	43	54	64
Groton-Dunstable	2,315	11.5%	15.8%	1.2%	25%	39%	30%	40%	28%	56	42	48	71
Hingham	3,864	8.3%	15.5%	0.4%	31%	32%	37%	29%	33%	49	51	63	58
Medfield	2,530	8.8%	13.0%	1.3%	19%	23%	35%	45%	33%	42	47	50	60
Norwell	2,186	6.2%	16.1%	0.4%	20%	20%	42%	37%	27%	42	49	48	62
Reading	3,846	11.6%	18.8%	1.1%	23%	19%	42%	18%	32%	53	53	54	56
Scituate	2,772	12.8	16.7%	0.4%	18%	21%	35%	26%	22%	43	40	51	52
Sharon	3,537	12.9%	15.5%	3.1%	21%	24%	26%	23%	24%	38	44	57	60
Wellesley	4,290	7.4%	17.1%	1.8%	30%	28%	59%	44%	32%	46	47	54	67
Westford	4,669	9.7%	16.3	1.9%	20%	28%	51%	38%	23%	45	52	59	58
Winchester	4,362	7.3%	16.4%	3.1%	32%	28%	47%	46%	36%	47	50	55	52



The following represents data for high needs for the 2022 MCAS with comparable districts. Source: [DESE DART Tool](#).

					% Meeting or Exceeding Expectations					Growth Average SGP			
					Grades 3-8		Grade 10		Grades 5 and 8	Grades 3-8		Grade 10	
District Names	Total Enrollment	Low Income %	SWD	ELL %	ELA	Math	ELA	Math	Science	ELA	Math	ELA	Math
Duxbury	2,811	9.0%	12.9%	0.5%	33%	29%	42%	45%	48%	50	46	53	66
Groton-Dunstable	2,315	11.5%	15.8%	1.2%	32%	34%	42%	55%	37%	46	45	56	67
Hingham	3,864	8.3%	15.5%	0.4%	39%	38%	59%	50%	39%	50	50	59	59
Medfield	2,530	8.8%	13.0%	1.3%	33%	35%	50%	57%	41%	47	51	58	62
Norwell	2,186	6.2%	16.1%	0.4%	26%	27%	54%	48%	36%	43	50	54	62
Reading	3,846	11.6%	18.8%	1.1%	31%	25%	51%	34%	37%	52	53	56	55
Scituate	2,772	12.8	16.7%	0.4%	28%	27%	53%	44%	27%	46	40	53	54
Sharon	3,537	12.9%	15.5%	3.1%	36%	41%	43%	45%	47%	43	48	59	58
Wellesley	4,290	7.4%	17.1%	1.8%	40%	40%	60%	52%	41%	49	49	51	69
Westford	4,669	9.7%	16.3	1.9%	33%	40%	64%	54%	26%	48	56	59	54
Winchester	4,362	7.3%	16.4%	3.1%	42%	39%	58%	46%	45%	51	53	56	51