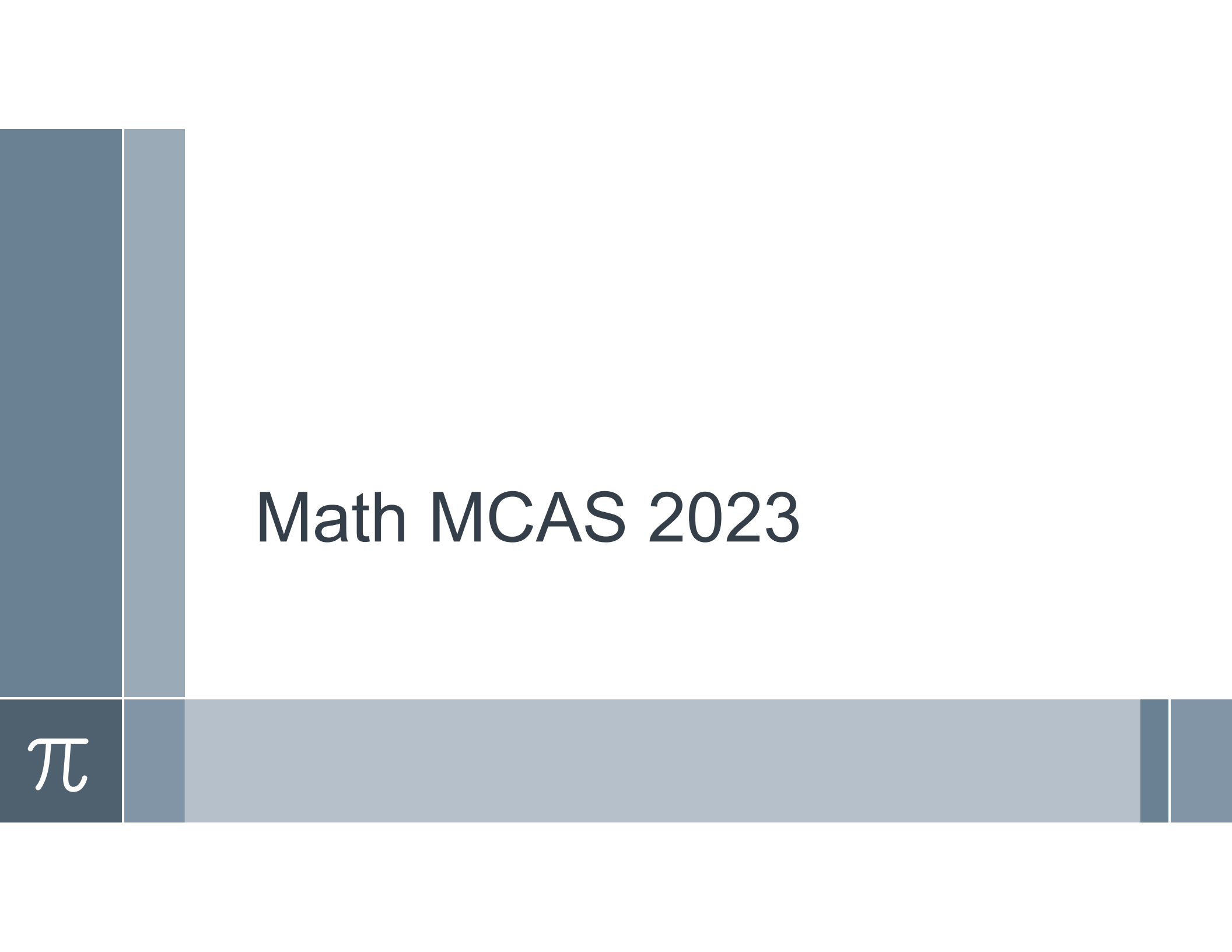


The image features a decorative background with a grid of blue and grey rectangles. A large dark blue rectangle is in the top-left corner. A vertical grey rectangle is to its right. A horizontal grey rectangle is below the dark blue one, containing the Greek letter pi (π) in white. The text "Math MCAS 2023" is centered in the white space.

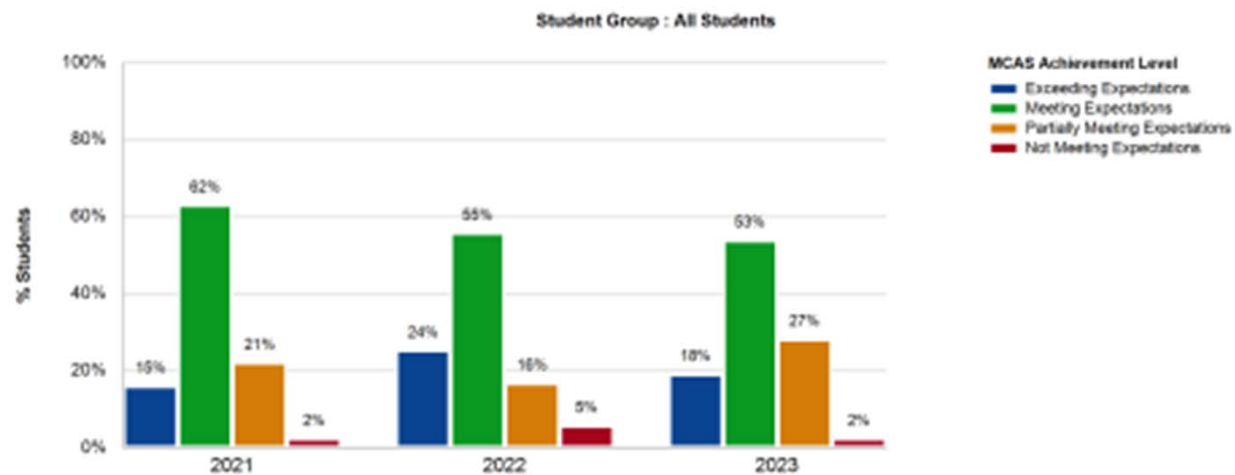
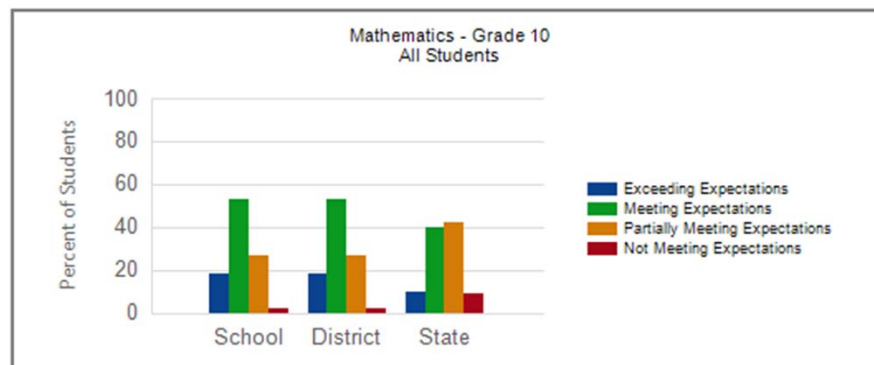
Math MCAS 2023

π

10TH GRADE

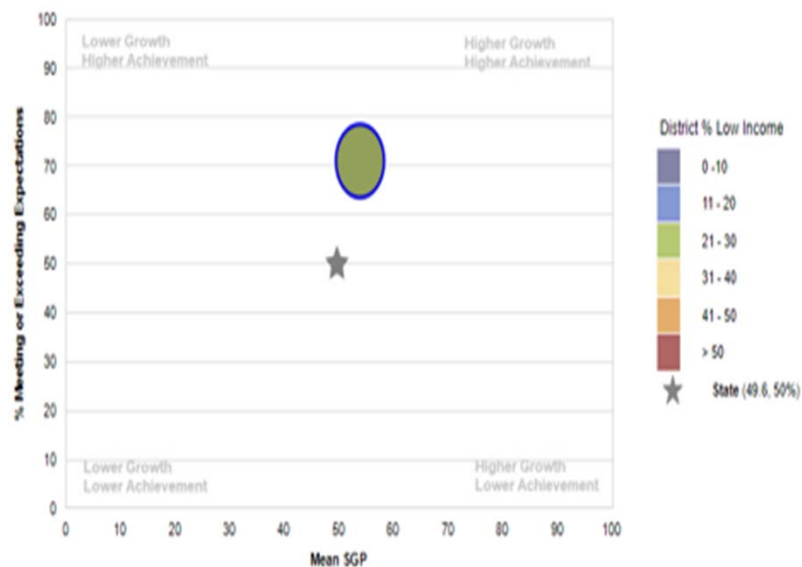
Participation Rate: 100%

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	12	18	18	10
Meeting Expectations	35	53	53	40
Partially Meeting Expectations	18	27	27	42
Not Meeting Expectations	1	2	2	9
Total Included	66			



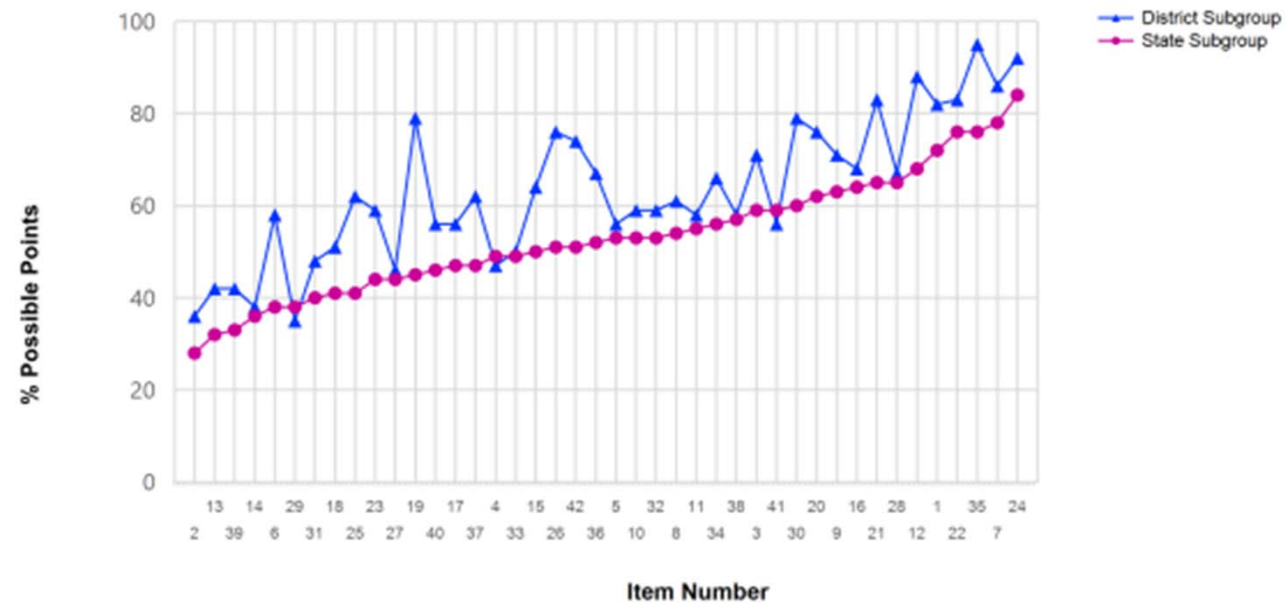
STUDENT GROWTH PERCENTILE

On the left is a scatter plot of achievement (meeting or exceeding) and growth (Median SGP) for Tahanto. It is used to compare an individual district's growth and achievement with other districts. Tahanto is the large dot (71, 54%) and the state is noted by a star (49.6, 50%) The right shows ALL DISTRICTS results of SGP.



District	% Meeting or Exceeding Expectations	No. of Students Included in Achievement	District % Low Income	Mean SGP	No. of Students Included in SGP
Berlin-Boylston	71	66	26	54	57

CURRICULUM ANALYSIS



THIS REPRESENTS THE 10TH GRADE ITEM ANALYSIS. 10TH GRADE SCORED AT OR ABOVE THE STATE IN ALL QUESTIONS EXCEPT FOR THREE.

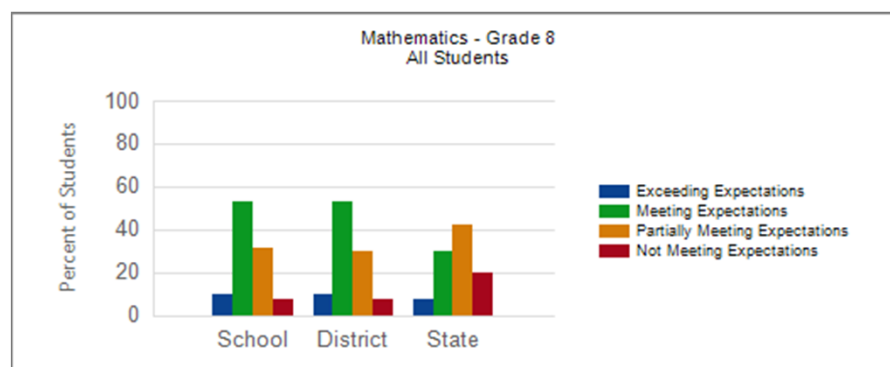
GRADE 10 HIGHLIGHTS

- ❑ 71% are exceeding or meeting expectations
- ❑ Only 1 out of 21 in High Needs category are not meeting expectations, while 9 out of 21 are meeting or exceeding.
- ❑ Even though some areas are lacking, our students show a modest amount of growth at the high school level.

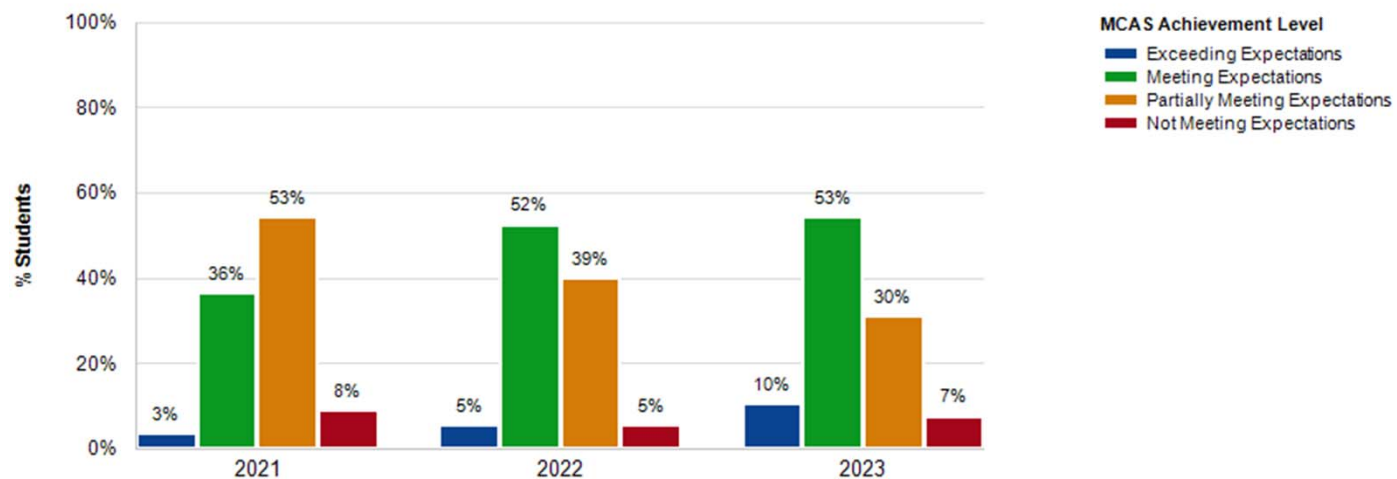
GRADE 8

Participation Rate: 100%

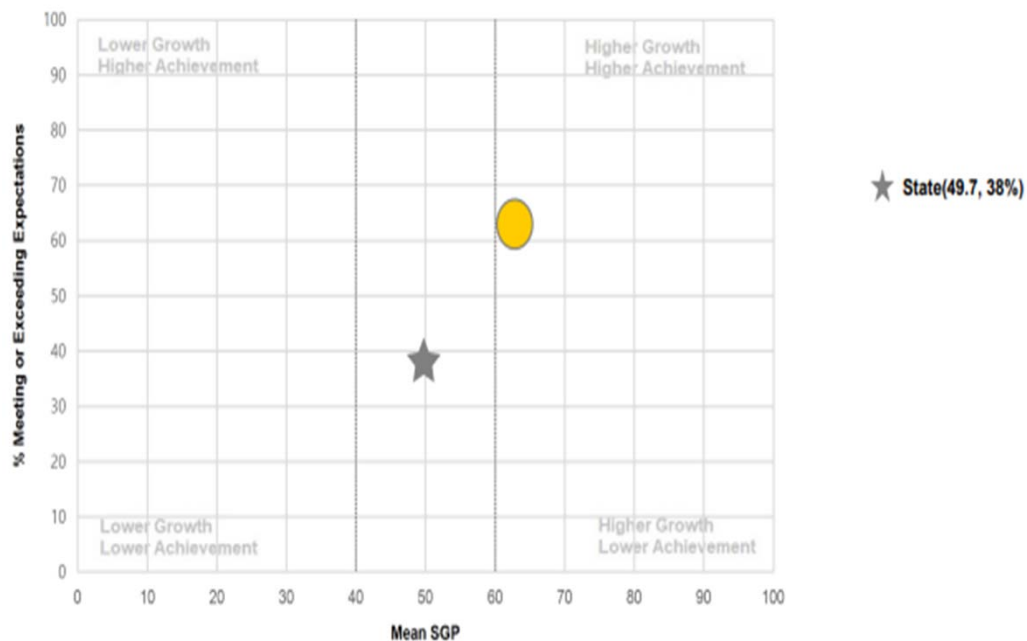
Mathematics	N Students Included	% District	% State
Exceeding Expectations	7	10	7
Meeting Expectations	39	53	30
Partially Meeting Expectations	22	30	42
Not Meeting Expectations	5	7	20
Total Included	73		



Student Group : All Students



Grade 8 Compared to State



The state showed a median SGP of 49.7 with 38% meeting or exceeding expectations while Tahanto showed a median SGP of 63 with 63% meeting or exceeding expectations.

GRADE 8 HIGHLIGHTS

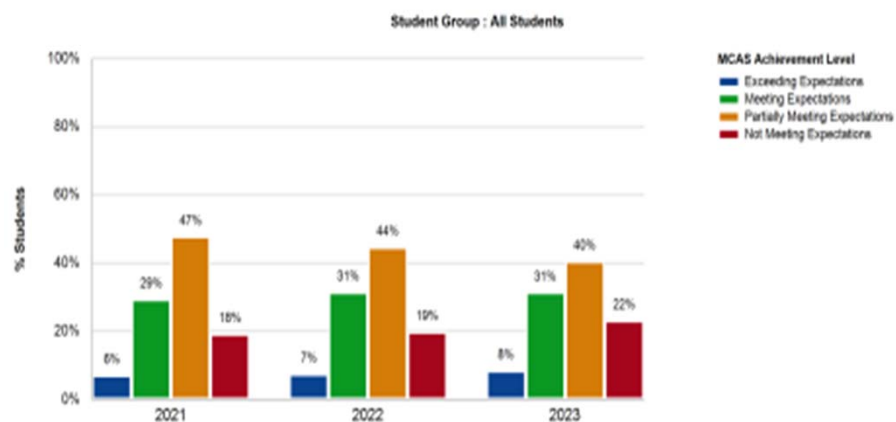
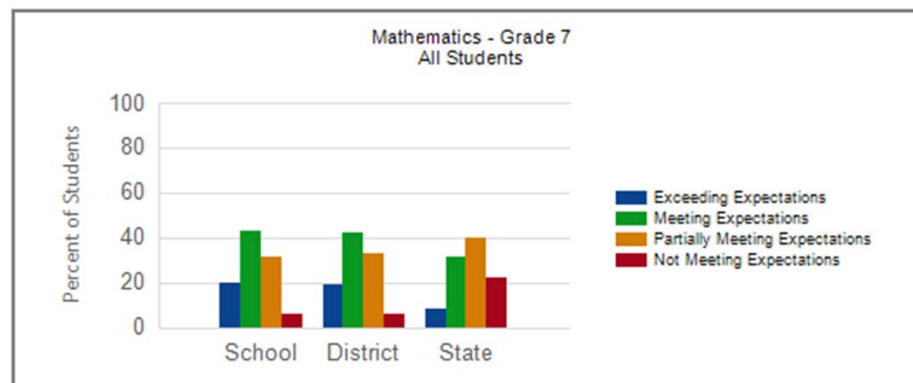
- Students exceeding expectations is the highest it has been in 3 years.
- 63% of students are meeting or exceeding expectations.
- Mean Student Growth percentiles have increased by 37% since 2021.

Note:

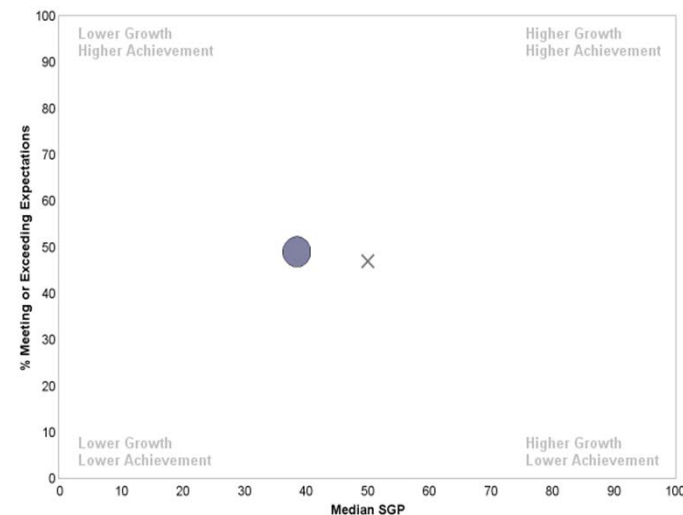
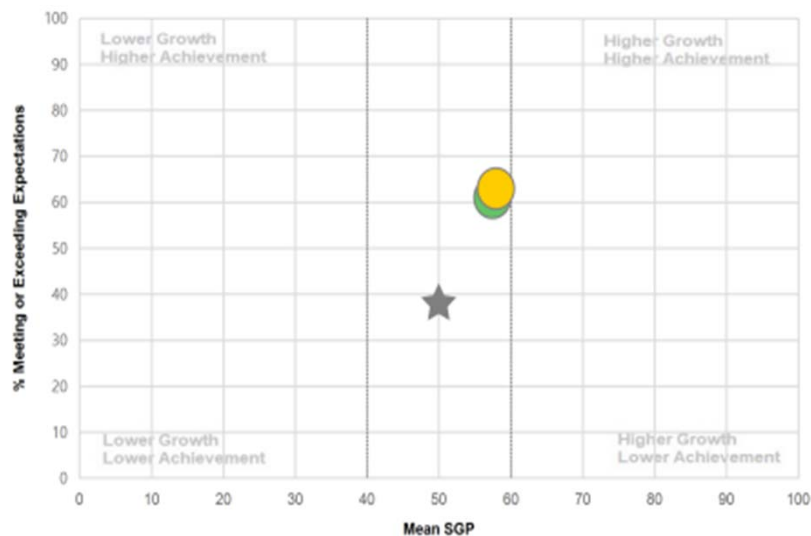
- The middle school were given partial exams and their scores are not a reflection of ALL of the standards.

GRADE 7

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	16	20	19	8
Meeting Expectations	34	43	42	31
Partially Meeting Expectations	25	31	33	40
Not Meeting Expectations	5	6	6	22
Total Included	80			



Grade 7 Compared to State

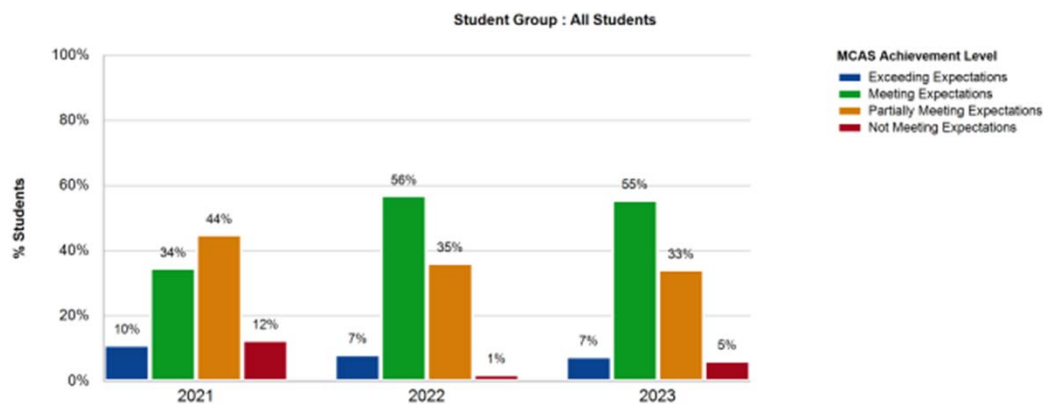
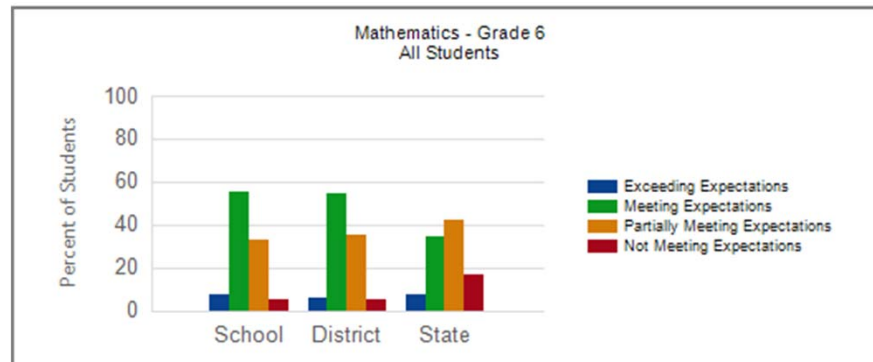


The state showed a median SGP of 49.9 with 38% meeting or exceeding expectations while Tahanto showed a median SGP of 58 with 63% meeting or exceeding expectations.

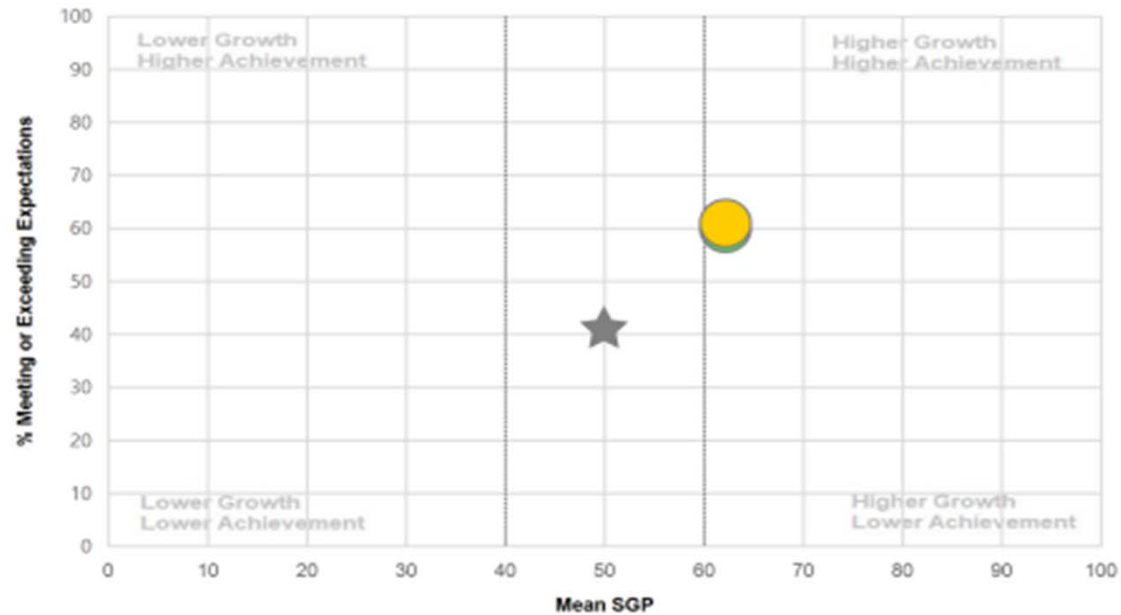
The graph on the right shows the results for 2022. Progress!

GRADE 6

Mathematics	N Students Included	% School	% District	% State
Exceeding Expectations	5	7	6	7
Meeting Expectations	41	55	54	34
Partially Meeting Expectations	25	33	35	42
Not Meeting Expectations	4	5	5	17
Total Included	75			



Grade 6 Compared to State



The state had a median SGP of 49.9 with 41% meeting or exceeding expectations while Tahanto showed a median SGP of 62 with 61% meeting or exceeding expectations.



What is the Math Department doing in the High School?

- › Students are given more access to online practice in Delta Math and Desmos so that students are familiar with online testing tools in math.
- › Teachers are filling in gaps as we transition into each class.
- › Practice problems focus on basic mathematical computations as we are seeing students struggle with number sense. Fractions are a big problem and need to be addressed at the lower levels.
- › Gaps are identified in the general curriculum (for all levels) and are addressed as needed.
- › Existing lessons are supplemented with alternate lessons prior to advancing deeper into topics requiring prerequisite skills.
- › Teachers are designing assessments that address the standards and that mimic MCAS open response questions.



What is the Math Department Doing in the Middle School?

- › **New curriculum (REVEAL math) is being used this year in grades 6-8. We believe this new curriculum is formatted to better meet the standards in these grades. Reveal curriculum allows students to develop their problem-solving skills.**
- › **The pathway for the Middle School has changed to align with the state frameworks which allows our middle school students to meet the full expectations of the middle school standards and be prepared for advanced mathematics in the high school.**
- › **Intervention during Quest block.**
- › **Flexible grouping of students—small group reteaching of missing skills.**
- › **Students with substantial deficiencies are recommended for (or already enrolled) in Math Lab.**
- › **Using data from IXL and Aimsweb to identify and address gaps.**
- › **Scaffolding lessons.**
- › **Identifying gaps and creating mini lessons to supplement what they SHOULD know.**
- › **Games and activities to work on fluency and math facts.**
- › **Teachers use standards, effective teaching practices, student data, and interests to select appropriate lesson models and tasks.**

What we are doing as a department:

As a team:

- We use Benchmark/MCAS data to identify weaknesses at the district/grade/teacher levels to inform curriculum and instruction.
- We use Benchmark/MCAS data to identify students who qualify for intervention and determine how we are going to offer intervention.
- We offer an MCAS remediation course every spring to any student who wishes to attend. The success of students who faithfully show up to this class is substantial and we would like to continue in offering this course.
- We look at all questions that score at or below state level and note where in the curriculum these topics are located to be sure that the material is being covered.
- Collectively we noticed that many of the questions that had low percentage of correct answers were questions that involved one of the following:
 - ☐ Word Problems
 - ☐ Multi-part problems
 - ☐ More than one correct answer was neededTo address these issues, all teachers will start to include more of these types of problems into regular instruction.
- We incorporate open response questions into our assessments so that students are prepared to answer open response questions with ease. The MCAS requires an impressive amount of writing in all areas of the curriculum. Consequently, we require students to be able to answer open response questions in correct format.
- We collaboratively analyze student work to make instructional decisions.
- We reflect on student learning and teaching through conversation and observations of student assessments and bounce innovative ideas off one another.