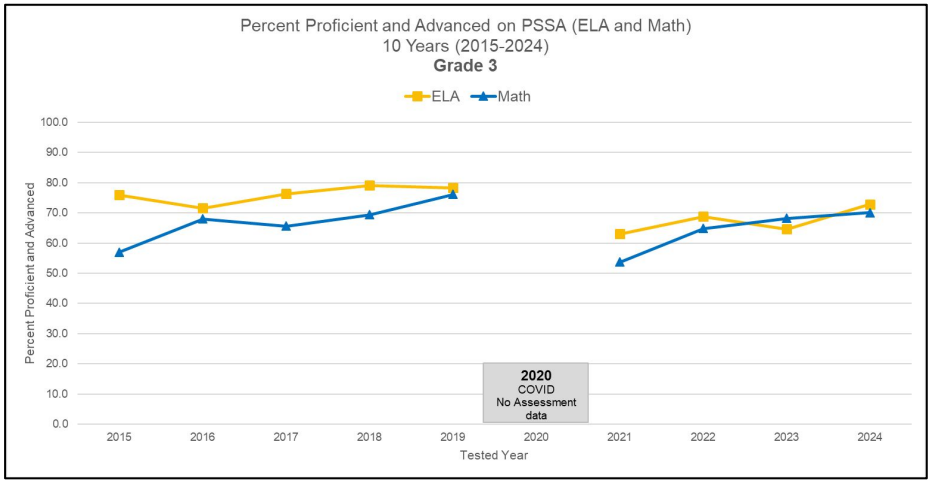
Nazareth Area School District (K-12): Academic Cycle of Inquiry: Action Planning

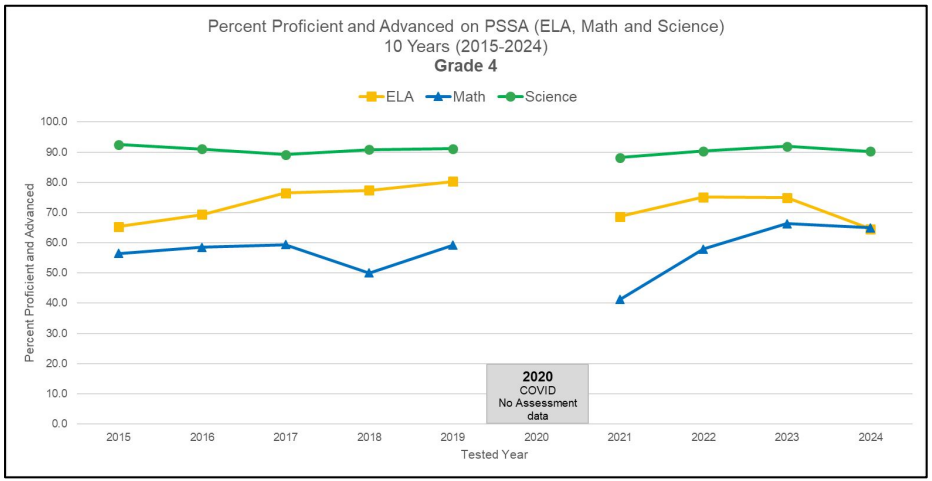
November 2024

District Benchmarking Performance Data
(2015-2024)

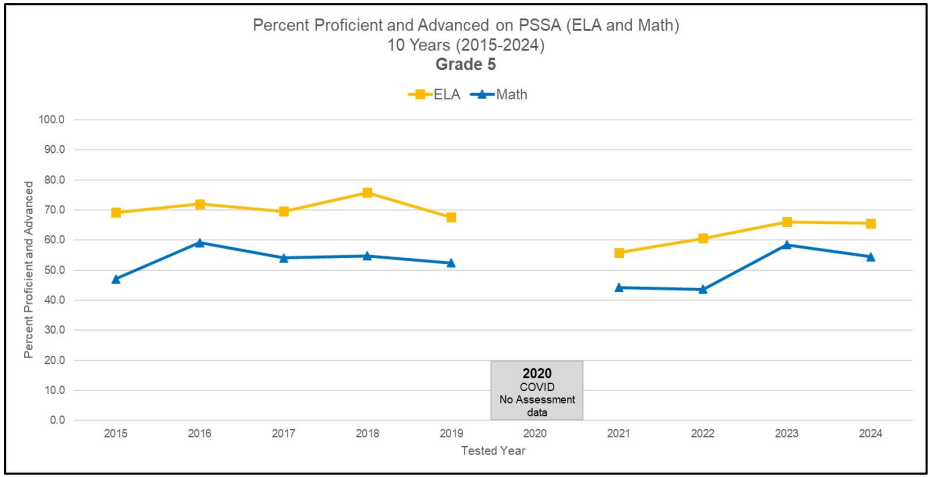
November 12, 2024

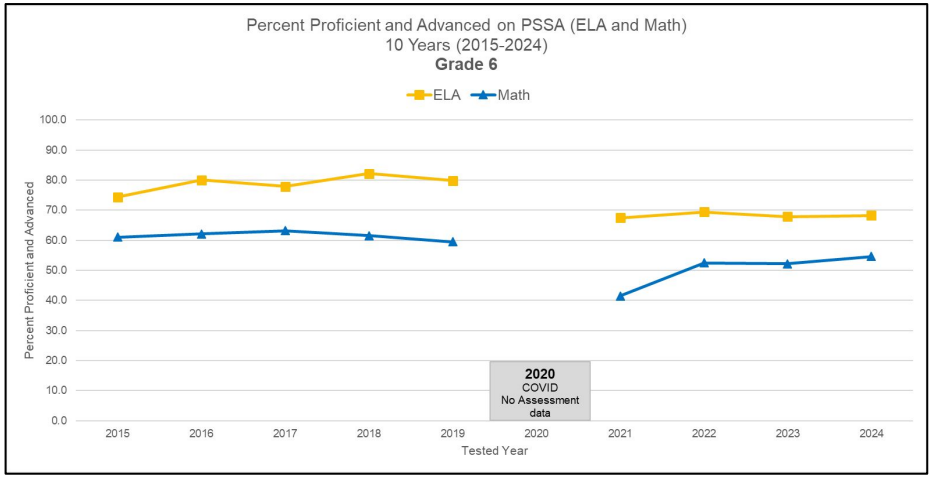
10-Year PSSA Performance
Grades 3 and 4



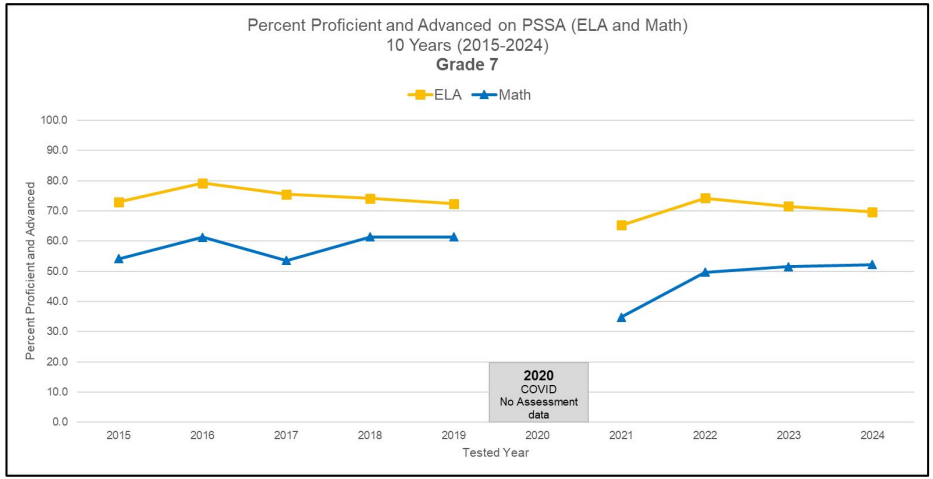


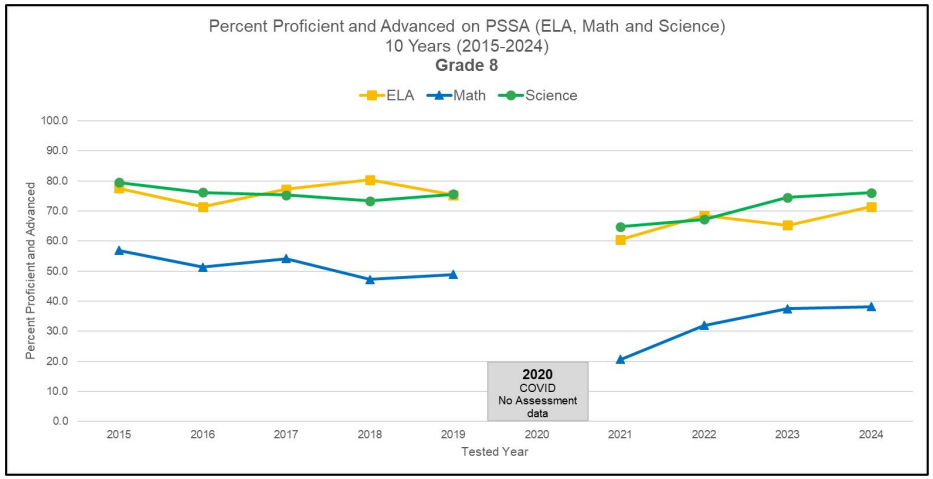
10-Year PSSA Performance
Grades 5 and 6



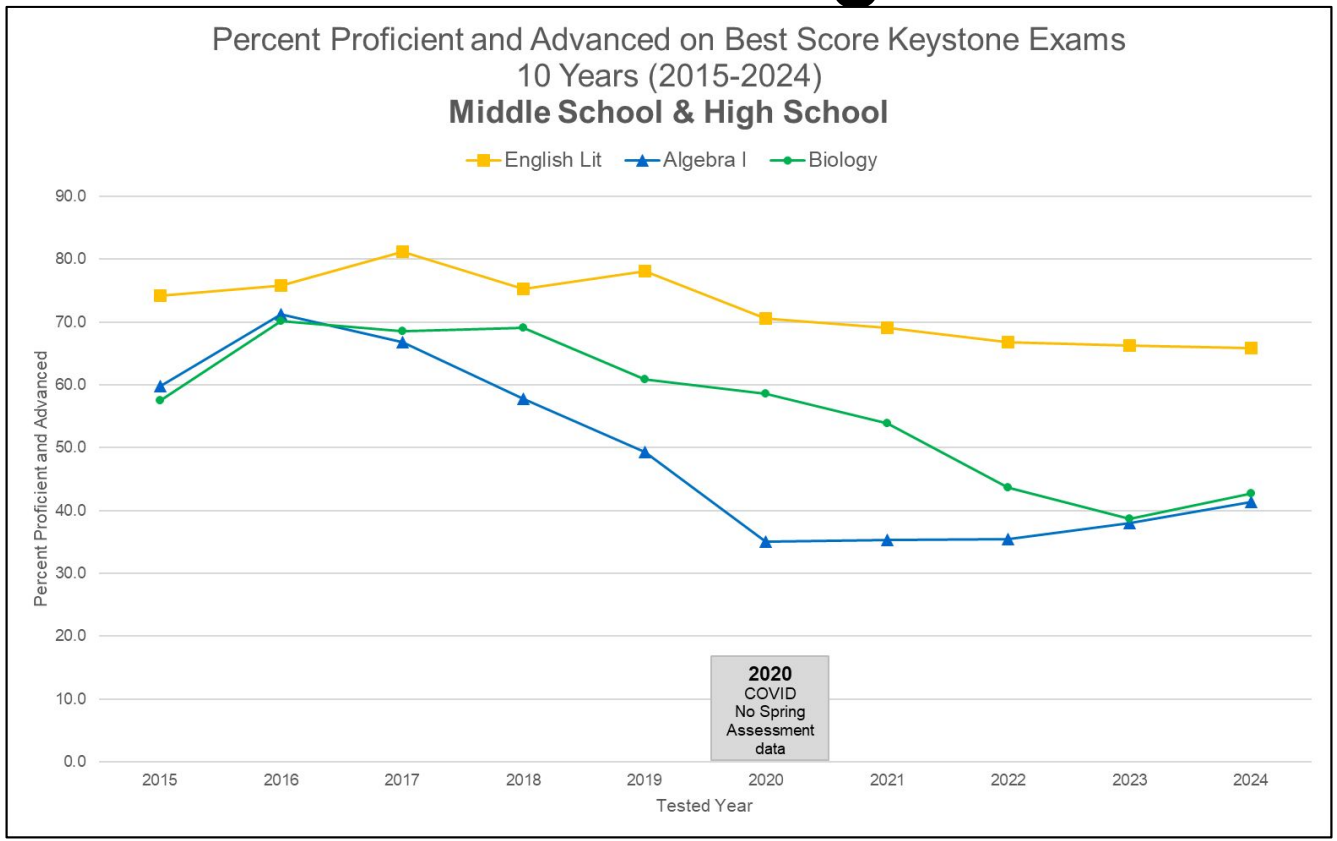


10-Year PSSA Performance
Grades 7 and 8



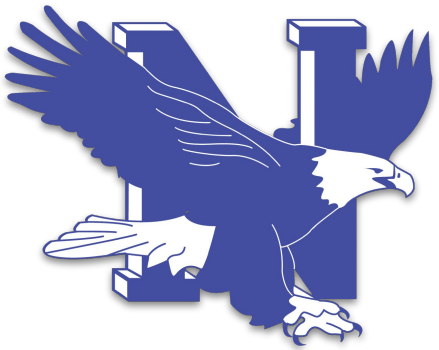


10-Year Keystone Performance Middle School & High School



How are we improving student growth from a District Level?

- Focus on high-quality instruction through:
  - Administrators sessions on inter-rater reliability in evaluations and supervision of professional staff
  - Evaluate maximizing instructional time through PowerScheduler training
  - Administrators professional development on instructional conversations and student work protocols
- Evaluate and implementation a new data warehousing system
- Cycle of Inquiry Action Planning for K-12 Principals



Kenneth Butz Elementary School

2024 Results:

	Percent Proficient/Advanced		
Grade	ELA	Math	Science
3	69.9	66.7	N/A
4	72.7	69.4	90.1

2024 Cycle of Inquiry focus groups:

Grade	Subject	Sub-group	% Pro/Adv
3	Math	Students with disabilities	26.1
4	Math	Students with disabilities	44.0

Key Challenge(s)

Meeting the diverse needs of KBES students by offering choices in exploring math concepts, fostering curiosity and understanding, personalizing learning, and using data to guide instruction.

Goals

- By providing targeted instruction and emphasizing skills determined by analysis of district assessments, 3rd and 4th grade students with disabilities will demonstrate growth in mathematics, achieving a Student Growth Percentile of 40 or higher on the STAR Assessment during one or more of the following periods: Fall to Winter, Winter to Spring, or Fall to Spring.

- Increase the percentage of 3rd and 4th grade students demonstrating growth toward proficiency on the Star Assessment by 10% between each assessment window, using evidence-based instructional strategies and differentiated teaching methods.

Summary of Action Plan

- Conduct a comprehensive analysis of previous PSSA math scores, as well as previous and current STAR scores to identify specific areas of strength and weakness among 3rd and 4th-grade students.

- Develop and implement targeted professional development sessions for teachers focused on enhancing instructional practices in math, incorporating strategies such as differentiated instruction, formative assessment, test-taking strategies, problem solving and real-world applications.

- Administer regular formative assessments to monitor student progress and adjust instructional practices as needed based on data-driven insights.

- Homogeneously grouped rotations across grade level to meet the needs of all students. Group students based on their skill levels and provide targeted instruction during WIN time.

Measuring progress toward the Goal

STAR Data Analysis:

- Evidence: STAR Growth Reports and Pathway to Proficiency Reports
- Frequency: September (BOY), January (MOY), and May (EOY)
- Purpose: Monitor growth and adjust student groupings for rotations based on data

Staff and Student Perception of Math Instruction:

- Evidence: Pre- and Post- Survey Results of students' personal perspective on their ability and their growth in mathematics. Pre- and Post- Survey Results of teachers' personal perspective on increasing their capacity to teach mathematics and their growth in differentiated instructional practices.
- Purpose: To assess the effectiveness of interventions or instructional changes, identify where additional support might be needed for students and teachers, and identify the broader impact on the learning environment and teaching practices within mathematics.

Provide students with the opportunity to set personal goals:

- Evidence: Student SMART Goal Worksheet and STAR Graphing Worksheet
- Frequency: September (BOY), January (MOY), and May (EOY)
- Purpose: To create student accountability towards achieving their personal goals

Lower Nazareth Elementary School

2024 Results:

	Percent Proficient/Advanced		
Grade	ELA	Math	Science
3	78.2	76.7	N/A
4	66.7	72.6	95.7

2024 Cycle of Inquiry focus groups:

Grade	Subject	Sub-group	% Pro/Adv
3	Math	Students with disabilities	41.2
4	Math	Students with disabilities	44.0
3	Math	Multi-language learners	50.0
4	Math	Multi-language learners	20.0

Key Challenge(s)

Meeting the diverse needs of Lower Nazareth students by offering targeted instruction in Mathematics with an emphasis on differentiated instruction, real world applications, and opportunities to collaborate and analyze data.

Goals

By the end of the 2024-25 school year, students in 3rd and 4th grade, Multi Language Learners, and students with disabilities will show growth in mathematics by earning an SGP of 40 or higher in one of the following timeframes: Fall to Winter, Winter to Spring, and/or Fall to Spring.

Increase the percentage of 3rd and 4th grade students demonstrating growth toward proficiency on the Star Assessment by 10% between each assessment window, using evidence-based instructional strategies and differentiated teaching methods.

Summary of Action Plan

Conduct a comprehensive analysis of previous PSSA math scores, as well as previous and current STAR scores to identify specific areas of strength and weakness among 3rd and 4th-grade students.

Develop and implement targeted professional development sessions for teachers focused on enhancing instructional practices in math, incorporating strategies such as differentiated instruction, formative assessment, test-taking strategies and real-world applications.

Administer regular formative assessments to monitor student progress and adjust instructional practices as needed based on data-driven insights.

Homogeneously grouped rotations across 4th grade during our Bulldog Block in order to build and enrich Math skills identified by the STAR Math assessment.

ESOL teachers will push into Bulldog Block supporting ML learners in their appropriately assigned group by reviewing key math vocabulary, supporting the classroom teacher by supplying visual aids to assist with abstract math concepts, and assist in facilitating math discourse while students collaborate.

Measuring progress toward the Goal

STAR Data Analysis:

- Evidence: STAR Growth Reports and Pathway to Proficiency Reports
- Frequency: September (BOY), January (MOY), and May (EOY)
- Purpose: Monitor growth and adjust student groupings for rotations based on data

Staff Perception of Math Instruction:

- Evidence: Pre- and Post- Survey Results of teachers' personal perspective on increasing their capacity to teach mathematics and their growth in differentiated instructional practices.
- Purpose: To assess the effectiveness of interventions or instructional changes, identify where additional support might be needed for students and teachers, and identify the broader impact on the learning environment and teaching practices within mathematics.

Shafer Elementary School

2024 Results:

	Percent Proficient/Advanced		
Grade	ELA	Math	Science
3	69.5	65.3	N/A
4	55.0	53.5	85.3

Key Challenge(s)

Meeting the diverse academic needs of Shafer Elementary students in the area of mathematics through enhanced instructional mathematical practices, differentiated instruction, and problem solving.

Goals

- By the end of the 2024-2025 school year, all students in 3rd and 4th grade will demonstrate growth in mathematics by achieving a Student Growth Percentile of 40 or higher on the STAR Assessment during one or more of the following periods: Fall to Winter, Winter to Spring, or Fall to Spring.

- By the end of the 2024-2025 school year, all 3rd and 4th grade students identified as gifted, will demonstrate growth in mathematics by achieving a Student Growth Percentile of 60 or higher on the STAR Assessment during one or more of the following periods: Fall to Winter, Winter to Spring, or Fall to Spring.

- By the end of the 2024-2025 school year, all of 3rd grade will increase the number of students who score proficient or advanced on the math PSSA (Pennsylvania System of School Assessment) by 5%.

- By the end of the 2024-2025 school year, all of 4th grade will increase the number of students who score proficient or advanced on the math PSSA (Pennsylvania System of School Assessment) by 10%.

SUMMARY OF ACTION PLAN

- Conduct a comprehensive analysis of the 2023-2024 PSSA math scores, as well as previous and current STAR scores to identify specific areas of strength and weakness among 3rd and 4th-grade students.

- Analyze STAR, and Reveal assessment data periodically to measure progress towards the determined growth target, monitor student progress, and adjust instructional practices as needed based on data driven insights.

- Develop and implement targeted professional development sessions for teachers focused on enhancing instructional practices in math, incorporating strategies such as differentiated instruction, test-taking strategies, and problem-solving.

- Provide additional math instruction and review during RR Block time based on the grade level and student's needs. i.e.- 1st Gr.- Adjust math centers for more time with middle and high groups; 2nd Gr.- Reteaching Concepts, Spiral review,Fact Fluency, Fix it Fridays; 3rd Gr.- Math Rotations 3-days per week based on skill (Subtraction, Money, Fractions, Geometry, Time, Data); 4th Gr.- Spiral Review, Math PSSA Coach Book, Fix it Fridays.

Measuring progress toward the Goal

STAR Analysis Data:

- Evidence: STAR Growth Reports and Pathway to Proficiency Reports
- Frequency: September (BOY), January (MOY), and May (EOY)

Staff Perception of Math Instruction:

- Evidence: Pre- and Post- Survey Results of staff's personal perspective on their ability and their growth in mathematics.
- Purpose: To assess the effectiveness of interventions or instructional changes, identify where additional support might be needed for students and teachers, and identify the broader impact on the learning environment and teaching practices within mathematics.

Classroom Support:

- Evidence: Monthly Grade Level Math Meetings
- Evidence: Observation notes, meeting notes, and feedback
- Purpose: To support classroom instruction, best practices, strategies, differentiation, and problem-solving in the area of mathematics.

Nazareth Area Intermediate School

2024 Results:

	Percent Proficient/Advanced		
Grade	ELA	Math	Science
5	65.6	54.5	N/A
6	68.3	54.6	N/A

2024 Cycle of Inquiry focus groups:

Grade	Subject	Sub-group	% Pro/Adv
5	ELA	Economically Disadvantaged	56.3
6	ELA	Economically Disadvantaged	49.1
5	ELA	Hispanic	52.4
6	ELA	Hispanic	60.4

Key Challenge(s)

Meeting the diverse needs of the Intermediate School students through structured literacy strategies and differentiated instruction in math and science, while aligning with STEEL standards in the Science Curriculum.

Goals

- All science teachers will implement at least one STEELS Standards unit that was developed in conjunction with the 7th & 8th Grade Science teacher leaders.

- Through repeated mathematical reasoning and discussion strategies, all students' scaled score from their BOY baseline using STAR data, will increase by at least 5% for each grade level (as per their higher score between Spring or EOY assessment).

- Through repeated, multiple exposures to structured literacy strategies, our economically disadvantaged and hispanic students will increase their ELA growth throughout the year as measured with the STAR student growth measure (SPG-Student Percentile Growth) by 5%.

- Through repeated, multiple exposures to structured literacy strategies, the percentage of students on the pathway to proficiency, using STAR data, will increase by 2% for each grade level.

Summary of Action Plan

STEEL Aligned Science Unit - Provide opportunities for professional development and resources on the STEEL standards and aligning those standards into the Science Curriculum, the teachers will be able to effectively implement a STEEL Science based unit in their science curriculum, so that students will be able to engage in hands-on, inquiry-based learning experiences that deepen their understanding of scientific concepts.

Math Reasoning: Offer ongoing training and support in mathematical reasoning and discussion strategies, with active monitoring to ensure consistent application. This will strengthen students' math understanding and reasoning skills, aiming for a 5% increase in the student' scaled score per grade level, as shown by STAR data.

Literacy for Targeted Groups: Focus professional development on structured literacy strategies for economically disadvantaged and Hispanic students, helping teachers integrate these strategies into daily instruction. This will increase students' literacy engagement, with a goal of a 5% rise in ELA growth, measured by STAR data.

Grade-Wide Literacy Consistency: Support and monitor structured literacy strategies across grade levels, allowing teachers to provide multiple, targeted literacy exposures. This aims to improve reading skills, with a target of a 2% increase in students on the pathway to proficiency per grade level, measured by STAR data.

Measuring progress toward the Goal

Periodic STAR Data Analysis (Main Tracking Mechanism):

- Evidence: STAR data reports, Both Scaled Score and Pathway to Proficiency results
- Frequency: September (baseline), December, March, May
- Purpose: Monitor growth and adapt interventions based on data.

Classroom Observations:

- Evidence: Observation notes and feedback
- Purpose: Assess alignment with goals for instruction and provide targeted feedback.

Identification of Key Areas of Need:

- Evidence: Focused Skill (Tiered Int.)reports by grade level, performance gaps
- Purpose: Pinpoint and address needs in mathematical reasoning and discussion.

Integration of Instructional Strategies:

- Evidence: Observation report & Walkthrough notes, Teacher feedback, STAR data
- Purpose: Track use of reasoning strategies and their impact on student progress.

Nazareth Area Middle School

2024 Results:

	Percent Proficient/Advanced		
Grade	ELA	Math	Science
7	69.6	52.2	N/A
8	71.4	38.2	76.1

2024 Cycle of Inquiry focus groups:

Grade	Subject	Sub-group	% Pro/Adv
7	Math	Students with disabilities	7.2
8	Math	Students with disabilities	4.3

Key Challenge(s)

- Executive function skills such as note-taking, organization, and being actively engaged and independent learners.
- Open-ended mathematical questions on any form of assessment (including PSSAs/Keystones).
- Understanding and applying the new application-based skills (directly tied to STEELS standards) within the Science curriculum.

Goals

- To effectively transition *Seventh-Grade English (Reading Course) to the AVID Literature program* and improve student performance on the ELA PSSA within one academic year by developing study skills, note-taking skills, organizational skills, and becoming more independent learners.

- To increase the percentage of all students, including those identified as special education students, to proficient or advanced on the *Pennsylvania State Assessment (PSSA) Mathematics* exam by 5% from the previous year's results by implementing targeted math interventions and differentiated instruction during the 2024 - 2025 school year.

- *To effectively transition to PA STEELS standards* and improve student performance on the Science PSSA within one academic year.

Summary of Action Plan

Seventh-Grade English (Reading Course) to the AVID Literature program

- Align seventh-grade English curriculum, instruction, and assessment with the AVID curriculum to implement AVID Literature strategies throughout the academic year.

Math open-ended questions

- Teachers will continue to focus on students ability to answer open ended questions through warm up activities and analyse their change in instruction based on the addition of the Reveal Math program.

Science STEELS standards

- Align curriculum, instruction, and assessment with PA STEELS science standards to enhance student understanding of core concepts, inquiry skills, and scientific practices. Provide teachers with continued professional development and review assessment data to monitor growth and understanding of the students.

Measuring progress toward the Goal

Benchmark Data Analysis:

- Compare current test data to previous years data
- Look for trends in areas of students weaknesses

Classroom Observations:

- Administration/Teacher classroom observation data based on
- Identify areas in which instruction has changed

Integration of Instructional Strategies:

- Observation reports, differentiation notes,
- Track student engagement based on classroom observations.

Data Collection Methods

- Anecdotal Records, Running Records, Participation Checklists, Formative Assessments, Summative Assessments

Nazareth Area High School

2024 Results:

	Percent Proficient/Advanced		
Grade	ELA	Math	Science
Keystone	65.9	41.4	42.7

2024 Cycle of Inquiry focus group:

Grade	Subject	Sub-group	% Pro/Adv
Keystone	ELA	Students with disabilities	15.5

Key Challenge(s)

- ❏ Students struggle making meaning of reading both nonfiction and fiction material. This is in part due to encountering unfamiliar vocabulary.
- ❏ Students have historically struggled with linear equations within their mathematics courses.
- ❏ Students have historically struggled with the concepts around homeostasis and transport within their Biology class.

Goals

- Increase the average Keystone Exam score in both Fiction and Non-Fiction anchors by 5% for all tested students by implementing targeted interventions and strategies to improve reading comprehension, analysis, and writing skills in both Fiction and Non-Fiction genres.
- Increase the percentage of identified students scoring proficient on the Literature Keystone Exam from 12% to 20%
- Increase the percentage of correct answers on Algebra Keystone Anchor A1.1.2 (Linear Equations) for non-proficient retesters from 50% to 55% through the consistent use of "Get More Math" resources at least once per week.
- Example: Increase student proficiency in the Biology anchor of homeostasis and transport from 40% to 50% through the implementation of diverse instructional strategies, including hands-on experiments, simulations, and visual aids.

Summary of Action Plan

- In all ELA classes: Identify and assess current vocabulary instructional practices and strategies (whole group). Determine additional vocabulary instructional practices and strategies [not currently used] targeted toward word parts and identifying vocab in context (whole group).
- In CP Algebra 2 classes, teachers will be using Get More Math to target and grow students' knowledge of linear equations.
- In Biology classes: Identify and assess current instructional practices and strategies used in the classroom for units of homeostasis and transport. Identify and further examine the Keystone structure of this one particular anchor.

Measuring progress toward the Goal

- For ELA we will be using data from CDT's, Keystones, and department created benchmarks.
- Biology will progress monitor with Keystone data and department created benchmarks.
- Mathematics will use "Get More Math" data and Keystone data.

Questions?