Newburyport Public Schools

What does the DISTRICT look at when examining MCAS data?

District Performance	Student Growth	Student Achievement	Subgroup Growth & Achievement
As measured by accountability data.	As measured by student growth percentiles (SGP)	As measured by percent of students moving towards meeting expectations and scoring 470 or above in 9-10th.	As measured by subgroup (e.g., special education, high needs) growth and achievement in comparison to the general population.

What questions do SCHOOL ADMINISTRATORS ask when examining MCAS data?

School Performance	Student Growth	Student Achievement	Subgroup Growth & Achievement
Has the school met their accountability targets?	What is the overall growth by subject areas tested? What trends are we seeing?	How are students achieving by subject and grade? What trends are we seeing in standards or subjects?	How are the subgroups performing relative to the general population?

What questions do TEACHERS ask when examining MCAS data?

Grade Level & Class Performance	Student Growth	Student Achievement	Subgroup Growth & Achievement
How are our students performing at each grade level? What is leading to our success? What are the causes of weaknesses?	What trends do we see with student growth percentiles? How are students in our lowest performing groups growing?	What *standards* and *types of questions* are students achieving as expected OR not achieving as expected?	Are there certain standards or question types that seem to be difficult for a subgroup? Are there students in my class in need of intervention?

To answer these questions, a district wide, multi-disciplinary team of educators and administrators conducted an in-depth analysis.

A multi-step process ensured...

(1) a deep understanding of the data from the district, to school, to classroom, to student levels

(2) a practical, next-steps approach to using the data to make decisions about curriculum, instruction, intervention, and staffing

What follows are reports from teams on their MCAS results.

Our focus is on this year's data.

You will see identified strengths ("glows") and weaknesses ("grows").

An item and standards analysis provided the basis for teachers to **evaluate** course curriculum, resources and instructional strategies and **set action** steps.

Newburyport High School

School Level Overview

- Exceeding *typical growth* in most reporting categories for ELA & math
- **ELA:** Similar achievement with high needs and low income subgroups exceeding achievement targets
- **Math & Science**: Lower achievement scores with low income subgroup exceeding or meeting the accountability target
- Improved/exceeded targets in all categories for **graduation rate**, **extended engagement rate**, and **drop-out rate**
- Met targets for **chronic absenteeism** (however, over 10% of students are still chronically absent)
- Increased students completing **advanced coursework,** especially with low income students (39.1% to 49.2%)

Newburyport High School

School Level Action Steps

- **Teacher Goals: focusing on skills to support achievement and growth**
- Vertical curriculum articulation with middle school beginning with learning walks
- Explore methods to increase common planning time
- Continue to expand pathways program to support student participation in advanced coursework
- Refine teaching & learning cycles
  - Incorporate more frequent common formative assessments to support teachers developing “re-teach” lessons
  - Use *Pear Assessment System* to help teachers access student learning data more quickly
  - Assign students in need of intervention during the Flex Period (Clipper Block)
- Implement common close reading strategies across disciplines and expand academic vocabulary instruction beyond 9th grade

Grade 10 English Language Arts

GLOWS	GROWS
• Exceeded *typical growth* for ALL students, high needs students, and students with disabilities • High typical growth for *lowest performing* and *low income* subgroups All Students SGP = 65.4 Lowest Performing SGP = 57.4 High Needs SGP = 60.1 Low Income SGP = 58.3 Students w/ Disabilities SGP = 60.3 • *Explanatory writing comparing two texts* – increased 6 percentage points (61% - 67%) • *Analyze the structure of texts* – increased by 13 percentage points (72% - 85%)	• Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience; (W.PK-12.4) particularly independently in a timed setting • Analyze complex texts - especially poetry

Grade 10 English Language Arts

ACTION STEPS	
• **Teacher Goals: focus on determining poems' themes and analyzing how authors develop these themes & writing explanatory essays using a paired passage format (poem to poem / poem to fiction). Use Pear Assessment tool for common summatives.** • Shift to common formative assessments targeting poetry skills • Use Common Planning Time to analyze and review formative assessments and develop "re-teach" lessons	• Assign students in need of additional intervention during the Flex Period (Clipper Block) • Continued focus on portfolios that allow students to analyze improvement in their own writing with an emphasis on W.PK-12.4 • Develop and implement common close reading strategies across the disciplines (POG Goal - Literate in Multiple Disciplines) and expand academic vocabulary instructional approach (Landmark Outreach) beyond 9th grade

Grade 10 Math

GLOWS	GROWS

• Exceeded *typical growth* for all students, lowest performing, high needs, and students with disabilities
• *High typical growth* for the low income subgroup
  ○ All Students SGP = 65.3
  ○ Lowest Performing SGP = 64.7
  ○ High needs SGP = 65.1
  ○ Low income SGP = 59.6
  ○ Students w/ disabilities SGP 62.9
• *Probability and Statistics* – Increased 14 percentage points (54% - 68%)
• *Geometry* – Increased 5 percentage points (64% - 69%)
	• *Numbers and Quantities* – Decreased 11 percentage points (67% - 56%)
	• *Algebra* – Decreased 16 percentage points (72% - 56%)
	• *Constructed Response* – Decreased 10 percentage points (54% - 44%)

Grade 10 Math

ACTION STEPS	
• **Teacher Goals: focus on a student's ability to "construct a viable argument and critique the reasoning of others" (Mathematical Practice 3)** • Departmental Book Study: *Building Thinking Classrooms* by Peter Liljedahl • Increase spiral review of Algebra I topics within the Geometry curriculum	• More frequent common formative assessments through Pear Assessment tool • Use common planning time to analyze and review formative assessments and develop "re-teach" lessons • Assign students in need of additional intervention during the Flex Period (Clipper Block)

Grade 10 Biology

GLOWS	GROWS
• Constructed Response – Increased by 19 percentage points (43% to 62%) • *Ecology* – Increased by 9 percentage points (69% to 78%) • *Evolution* – Increased by 6 percentage points (65% to 71%)	• *Molecules to Organisms* – Similar performance (65% to 65%) • *Heredity* – Similar performance (71% to 71%) • Scientific Questioning

Grade 10 Biology

ACTION STEPS	
• **Teacher Goals: focus on Scientific Questioning and more frequent formative assessments using Pear Assessment** • Shift to more frequent common formative assessments using Pear Assessment	• Use Common Planning Time to analyze and review formative assessments and develop "re-teach" lessons • Assign students in need of additional intervention during the Flex Period (Clipper Block)

Nock Middle School

School Level Overview

- High *typical growth* in most reporting categories for both ELA and math
- Improved to *exceeded targets* in achievement for **EL students** in both ELA & math
- **Lowest Performing Subgroups** growth – 74 average SGP in math & ELA
- Met Targets for **Chronic Absenteeism** from 15.7% to 12.4% (however, over 10% of students are still chronically absent)
- **Science**: lower achievement scores
- **Math**: lower SGP & achievement (grade 8)
- Continued achievement in **writing** across the board
  - 8th grade explanatory writing up 14.5% since 2022
- Overall achievement levels have stayed flat

Nock Middle School

School Level Action Steps

- **Teacher Goals: focusing on skills to support achievement and growth**
- Focus on vertical articulation with high school beginning with learning walks
- Continued common planning time
- Formative assessment development and analysis
- Continued exposure to potential pathways to support NHS initiatives
- Assign students in need of additional intervention during the Flex Period
    - Use interim iReady Data to create groupings for intervention block
- MCAS Boot Camp
    - Average SGP of students who have attended the MCAS Boot Camp is 67
- Attendance Liaison – Attendance Works grant

Grades 6-8 English Language Arts

GLOWS	GROWS

• *Explanatory writing* – consistent improvement in achievement since 2019 across grade levels
• Growth in students with disabilities 59%
  ○ Grade 6: +6 more than non-disabled peers; growth in high needs students 55, +1 more than non-high needs peers
• Out performing state: on all standards in 6th; 33/35 standards in 7th; 35/36 standards in 8th
• Specific skill glows
  ○ 6th - Identifying inferences, tone, central idea
  ○ 7th - Comparing two fictional works
  ○ 8th - Comparing two fictional works
	• Poetry – across grade levels
	• Grade 6
	  ○ Continue to improve in writing
	  ○ Using multiple texts to analyze and compare
	• Grade 7
	  ○ Determining the meaning of words in context
	  ○ Determining how information is presented in specific sections of two articles
	• Grade 8
	  ○ Passages that asked to compare two informational texts (one of which was a letter)

Grades 6-8 English Language Arts

ACTION STEPS	
• Increased opportunities to interact with poetry • Provide on-demand writing opportunities to practice independent writing with a focus on using multiple texts at the end of the unit ○ Writing in a workshops vs. writing on-demand	• Design and implement opportunities for interdisciplinary collaboration with a focus on non-fiction text

Grades 6-8 Math

GLOWS	GROWS

• 8th grade improvement in *Geometry* - cylinders, cones and spheres and the Pythagorean Theorem
• 7th grade improvement in *Expressions and Equations and Statistics*
• 6th grade improvement in *Expressions and Equations* - one variable equations and inequalities; and *Statistics and Probability* - summarize and describe distributions
	• Grade 8
	  ○ *Number Sense* (rational/ irrational numbers, radicals/ exponents)
	  ○ *Expressions and Equations* (investigate patterns in bivariate data)
	• Grade 7
	  ○ *Dependent and Independent Variables*
	• Grade 6
	  ○ Constructed Response numbers are lower than the year before
	  ○ Address content previously taught and vocabulary development

Grades 6-8 Math

ACTION STEPS	

• Short-term math curriculum task force (6-8 curriculum and instruction)
• Reinforce previous units
  ○ Primary and Secondary Benchmark
• Practice Open Response Questions
  ○ Improve vocabulary alignment
	• Enhance mathematical discourse
	  ○ Departmental book study on *Building Thinking Classrooms* by Peter Liljedahl
	• Flex Intervention
	  ○ iReady
	  ○ 8th grade standards
	  ○ 6th & 7th grade students

Grade 8 Science & Technology/Engineering

GLOWS	GROWS
• *Technology Engineering* shows steady growth from 58% in 2022 to 62% in 2023, to 67% in 2024 (9% increase) • *Life Science* is steady - 53% in 2022 to 62% in 2023 to 59% in 2024 and continues to outperform the state by 6% • *Motion and Stability* has improved from 2 years at 56% to 69% (14% increase) • *Heredity* shows steady growth from 45% to 56% to 73% (28% increase)	• *Earth's Place in the Universe* has been in the 40s for the past two years. • While *Energy* was 73% in 2023 - it has been in the 40%s in 2022 and 2024 - this is a concept taught at the end of the year so it might not have been covered before MCAS • *Constructed responses* (CR) show a weakness - one clear example is that standard 7PS3.7 (PE and KE) scored 81% as a SR in 2023, but in 2024 it was a CR and scored 23%.

Grade 8 Science & Technology/Engineering

ACTION STEPS	

• Increase writing exposure and develop common rubric for Claim-Evidence-Response writing prompts
• Continue using electronic assessments for practice (Pear Assessment)
• Teach test-taking skills by breaking down questions
  ○ Use past MCAS questions for student exposure
	• Align curriculum to spiral all science domains yearly
	• Strategically review past content throughout 8th grade.
	  ○ Scope & Sequence

Molin & Bresnahan Elementary Schools

Grades 3-5 English Language Arts

GLOWS	GROWS

• *Analyzing stories & using evidence* from the story strength in grade 3
• *Words in context:* 3rd & 4th grade strength as compared to state
• *Making inferences*:
  ○ Grade 4: in 2023 went from 48% of students answering inference questions to 80% in 2024
  ○ Grade 5: inferencing and understanding character an average of 8 points above the state
• 5th grade *explanatory writing:* averages improved from 34% in 2022, to 38% in 2023, to 51% in 2024, and align with cohort improvements
• 5th grade *figurative language* understanding
• 5th grade cohort: increase in students Exceeding + Meeting: from 40% in 2023 to 49% in 2024
	• In 3rd grade *folktales*: 5 of our 10 lowest reading questions were about folktales (not including writing questions)
	• Distinguish between *figurative and literal language* (only question, besides writing, where we were below the state) in 3rd and 4th grade
	• In 3rd grade *informational text* ~ 4 of our 10 lowest scoring questions (eg. use of text features, understand the main idea of a passage)
	• In 4th grade, two of our lowest questions and two of our highest questions were about *determining the meaning of words in context,* which indicates this skill is partially known but not mastered
	• In 5th grade *using evidence from the text to support a main idea or claim* is a lower performing standard; however we are 15 points higher than the state average
	• *Identifying main idea* across genres in grades 3-5
	• Writing overall

Grades 3-5 English Language Arts

ACTION STEPS

- Expand **vertical academic vocabulary** instruction (eg. meaning of "literal and figurative," information text language like "key and illustration")
- Increase vertical attention to **folktales**
- Focus attention to **writing**, through consistent team meetings focused on common assessments and analyzing data; as well as developing instructional skills through professional development
- Take an iterative approach to **figurative language and inference instruction**. From 3rd to 5th grade, scores around figurative language and inference grows significantly, indicating that it takes many exposures and developmental growth to master this skill
- **Data meetings** grades K-5 to analyze foundational skill instruction as measured by district assessments. Articulate teaching and learning goals and identify students who need additional instruction or intervention
- Increase **common planning time** for Curriculum Education Leaders (CEL) and coach led grade level team meetings
- Continue Positive Behavior Intervention Systems, trauma informed instruction and Playful Learning Initiative to apply current research in the field of education to our daily practice

Grades 3-5 Math

GLOWS	GROWS

• Achievement
  ○ 3rd Grade: Low Income Subgroup increased 17% for Meeting/ Exceeding Standards
  ○ 4th Grade SGP increased from 22% in 2022 to 47% in 2024
• Word Problems
  ○ 3rd Grade and 4th Grade: consistently performed above the state on single step word problems
• Representing Fractions
  ○ 3rd Grade and 4th Grade: using models to show understanding of fractions
• 5th Grade: outperformed state on all problems involving volume by an average of 11 points
• 5th Grade: outperformed state on all problems involving decimals by an average of 8.5 points
	• 3rd Grade
	  ○ Unit fractions/reading a ruler/real world measuring
	  ○ Geometry
	  ○ Rounding
	• 4th Grade
	  ○ Symmetry
	  ○ Fraction
	• 5th Grade:
	  ○ Real world problems with fractions
	  ○ Expression

Grades 3-5 Math

ACTION STEPS	
• iReady Math Curriculum – continued implementation and coaching • Developing play-based approach to enhance hands-on learning • Focus on interpreting word problems and the language of math	• Instructional Professional Learning Community: *Building Thinking Classrooms* by Peter Liljedahl • Integrating data conversations to impact change in instructional approaches and curriculum scope and sequence • Ongoing use of intervention for students identified by iReady and classroom diagnostics

Grade 5 Science & Technology/Engineering

GLOWS	GROWS
• 2024 data shows students performed above the state on almost all constructed responses • Hands on experiences and placed-based education demonstrated success on connected standards (ex: hydrologic cycle field trip and water filter construction activity) • Earth and Space Science domain continues to be a strength (of note - this unit is paired with a literacy connection for a research project and informational writing assignment)	• Anticipating the next steps in an investigation based on a given model (vs. knowledge gained from conducting an investigation) • Analyzing another scientist's work and answering questions about it (vs. conducting investigations and learning from data gathered) • Physical science standard about matter (5.PS.1.1) is historically below the state

Grade 5 Science & Technology/Engineering

ACTION STEPS	
• Identify domain-specific vocabulary used regularly on MCAS that is not currently part of our science curriculums • Incorporate additional ways to connect science and literacy through research projects and informational writing	• Begin conversations on how to incorporate more content curriculum connections for Multilingual Learners

Elementary Schools

School Wide Action Steps

- **iReady Mathematics** curriculum implementation & coaching
- Drop Everything & Write, more **"On Demand" writing**
- Keys to Literacy **Vocabulary and Comprehension** Routines
- Curriculum Education Leader led staff meetings 1x month; focus on curriculum, assessment and **data-driven instruction adjustments**
- **Attendance liaisons** - Attendance Works grant to decrease chronic absenteeism
- Support implementation of **play-based education** (Professional Learning Community)
- My View **curriculum review**
- **Writing review** to ensure vertical alignment & common assessments
- Mindfulness program to **support social emotional wellness** under stress

Please see the complete 2024 NPS MCAS Scores Report posted on the district website Assessment page.

https://www.newburyport.k12.ma.us/cms/lib/MA50010879/Centricity/Domain/24/2024%20MCAS%20report%20FNL%2011.14.24.pdf