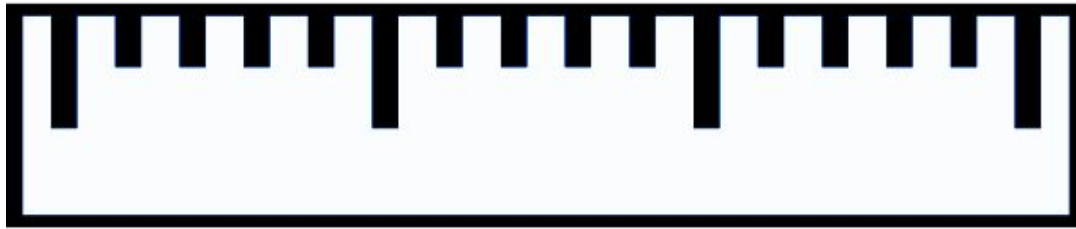


SPS

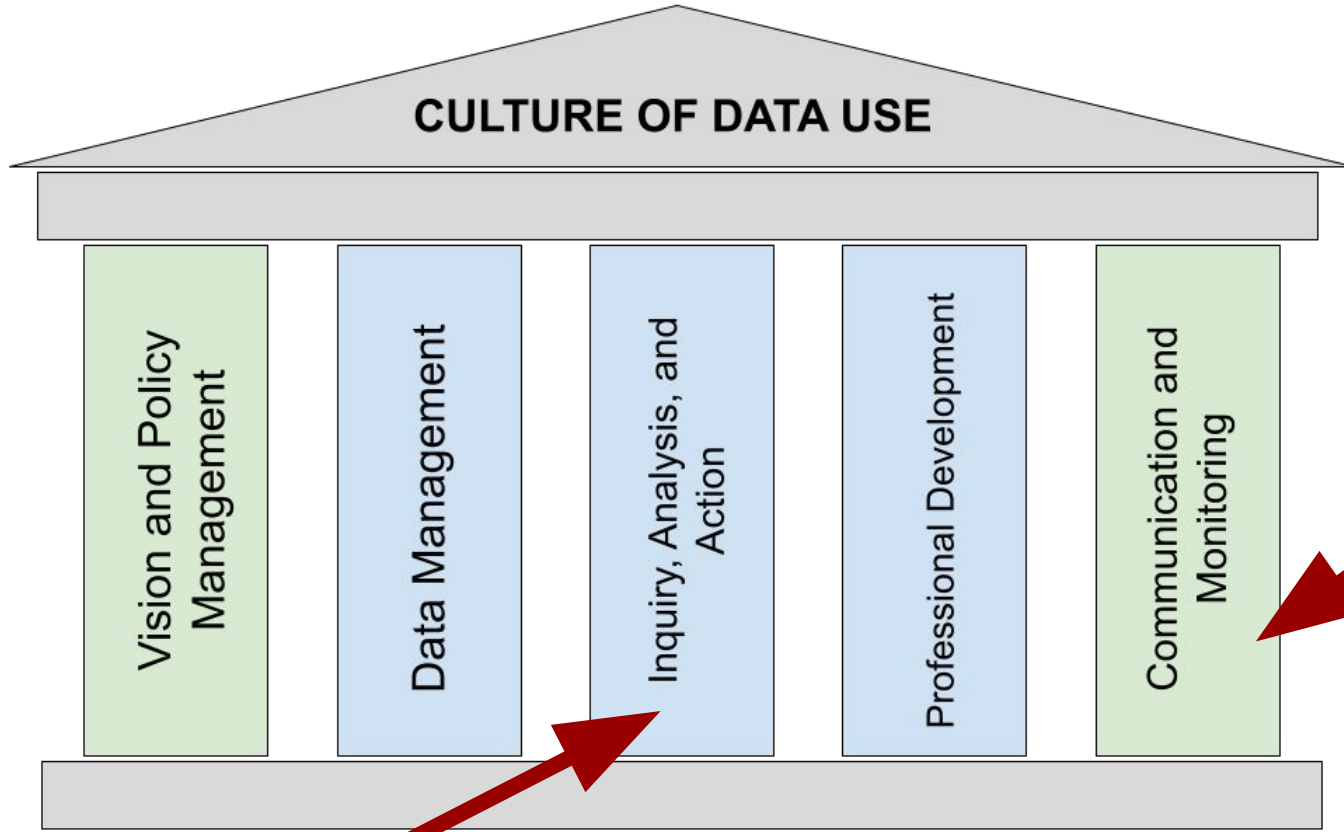
Spring Elementary Academic Benchmarking

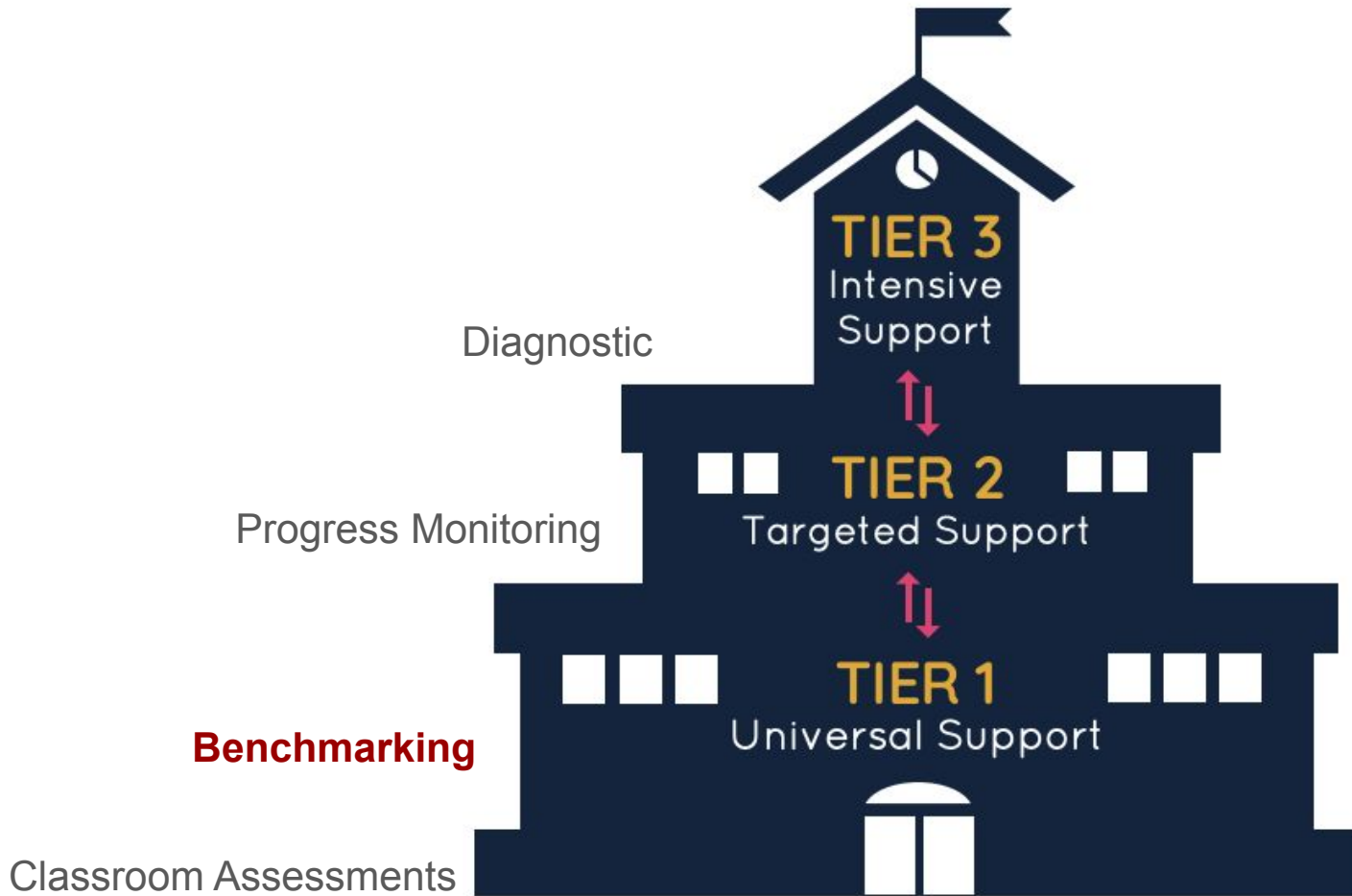
A presentation to the School Committee
April 8, 2024



Educators need to understand what each student already knows, and where that student needs to go next in the teaching process.

--John Hattie, *Education Week*, vol 35, #10, October 28, 2015







- **Mathematics Benchmarking**
- **ELA Benchmarking**
- **Questions**

Mathematics

Math Assessment Timeline

Grades	DETAILS	Assessment Name:																																																					
		SEP	13	20	27	OCT	4	11	18	25	NOV	1	8	15	22	29	DEC	6	13	20	27	JAN	3	10	17	24	31	FEB	7	14	21	28	MAR	7	14	21	28	APR	4	11	18	25	2	9	16	23	30	MAY	6	13	20	27	JUN	6	13
K-1	Comprehensive Growth Assessment (Individual Interview for ALL Students)	K	Baseline											Baseline											Benchmark																														
		1	Benchmark											Benchmark											Benchmark																														
2-5	Number Corner Assessments (Assessment for ALL students)	2	Baseline											Mid-Year NC											EOY NC4																														
		3	Baseline											Mid-Year NC											EOY NC4																														
		4	Baseline											Mid-Year NC											EOY NC4																														
		5	Baseline											Mid-Year NC											EOY NC4																														
		5	Baseline											Mid-Year NC											EOY NC4																														
2-5	Number Corner Checkups (Highly Recommended)	2	NC 1											NC 3											NC 3																														
		3	NC 1											NC 3											NC 3																														
		4	NC 1											NC 3											NC 3																														
		5	NC 1											NC 3											NC 3																														
		5	NC 1											NC 3											NC 3																														
K-5	Unit Screeners (Highly Recommended)	K	U1 Screener											U2 Screener											U3 Screener																														
		1	U1 Screener											U2 Screener											U3 Screener																														
		2	U1 Screener											U2 Screener											U3 Screener																														
		3	U1 Screener											U2 Screener											U3 Screener																														
		4	U1 Screener											U2 Screener											U3 Screener																														
K-5	Formative Assessments (Highly Recommended)	K	Black Count Checkpoint (U1.M2.5)											Domino Checkpoint (U1.M2.5)											Combinations of 10 Checkpoint (U1.M2.5)																														
		1	Number Combinations to Ten Checkpoint (U1.M2.5)											Place Value Checkpoint (U2.M2.5)											Measuring Checkpoint (U2.M2.5)																														
		2	Addition & Subtraction Checkpoint (U1.M2.5)											Multiplication Checkpoint (U3.M2.5)											Rounding & Multi-Digit Addition & Subtraction Checkpoint (U3.M2.5)																														
		3	Multiplication & Division Checkpoint (U1.M2.5)											Multiplying by Tens & More Checkpoint (U2.M2.5)											Equivalent Fractions Checkpoint (U3.M2.5)																														
		4	Numerical Expressions Checkpoint (U1.M2.5)											Fraction Addition & Subtraction Checkpoint (U3.M2.5)											Working with Fractions Checkpoint (U3.M2.5)																														
		5	U1 Readiness Check											U2 Test & Unit 2 Readiness Check											U3 Test & Unit 3 Readiness Check																														
6-8	Unit Assessments	6	U1 Readiness Check											U2 Test & Unit 2 Readiness Check											U3 Test & Unit 3 Readiness Check																														
		7	U1 Readiness Check											U2 Test & Unit 2 Readiness Check											U3 Test & Unit 3 Readiness Check																														
		8	U1 Readiness Check											U2 Test & Unit 2 Readiness Check											U3 Test & Unit 3 Readiness Check																														

Math Assessment Timeline

Benchmark Assessments

- Baseline (September)
- Mid-Year (Jan/Feb)
- End of Year (June)

**The schedule for K and 1 differ slightly since their assessments are mostly individual interview based.

Unit Screeners/Readiness Checks

- Prior to every unit (classroom)

Unit Checkpoints/Middle School Quizzes

- 1-2 per unit (classroom)

Individual Interviews (Fluency check or Math Recovery)

- As needed for individual students

Grades	Assessment Name:	MAY	JUN
K-1	Comprehensive Assessment Interview for	23	30
2-5	Number Concepts (Assessment)	6	13
2-5	Number Concepts (Highly Rigorous)	6	13
K-5	Unit Screeners/Readiness Checks	6	13
K-5	Formative Assessments/Readiness Checks	6	13
6-8	Unit Assessments	6	13
	Numbers to 100 Checkpoint (U7.M2.5)		
	Multiplication and Division Checkpoint (U7.M3.5)		
	Location & Place Value Checkpoint (U7.M4.5)		
	Operations & Equations Checkpoint (U7.M5.5)		
	Geometry & Measurement Checkpoint (U7.M6.5)		
	End of Year Assessment		
	End of Year Assessment		
	End of Year Assessment		
	Final Assessment		

Math Assessment Timeline

Benchmark Assessments

- Provides a high-level overview of essential content strands
- Indicator of when to look closer through other, more focused assessments to provide information about student understanding of the mathematics

Unit Screeners/Readiness Checks

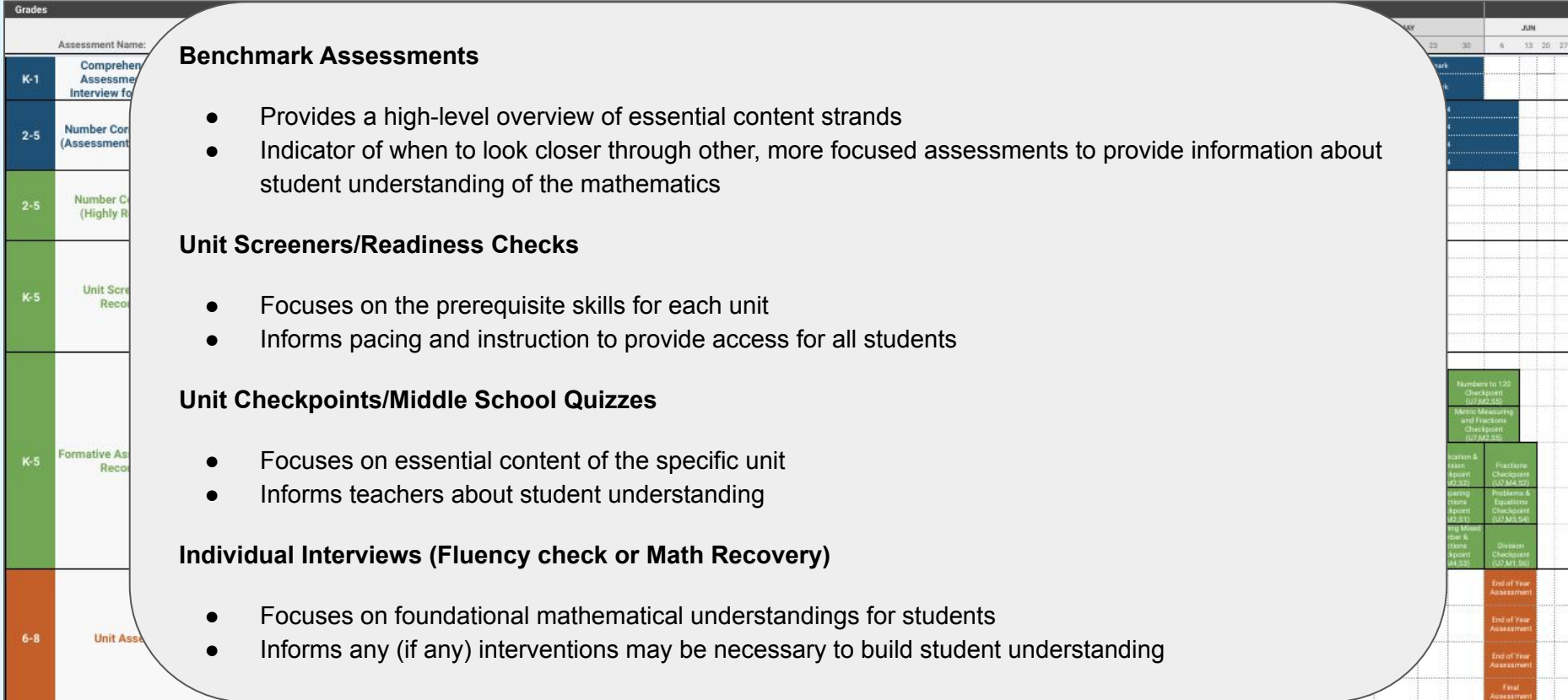
- Focuses on the prerequisite skills for each unit
- Informs pacing and instruction to provide access for all students

Unit Checkpoints/Middle School Quizzes

- Focuses on essential content of the specific unit
- Informs teachers about student understanding

Individual Interviews (Fluency check or Math Recovery)

- Focuses on foundational mathematical understandings for students
- Informs any (if any) interventions may be necessary to build student understanding



Looking at the Data:

Benchmark Assessments

- Grade level data meetings, led by the building Math Coach

Unit Screeners/Readiness Checks

- Teacher teams or individual teachers
- Math Coaches provide planning assistance or coaching

Unit Checkpoints/Middle School Quizzes

- Teacher teams or individual teachers

Individual Interviews

- Math Coach administers the interview and shares the data to the classroom teacher and other support individuals

In Grades 6-8, math teachers review data individually, on grade level teams, and as a department. Math Coaches have administered individual interview for students upon request.

Mid-Year Assessment Overview

Purpose: Provide a snapshot into the progress towards the end of year. All standards are end-of-year standards

Data Meetings: Mid-Year data meetings at all elementary schools.

- Review by questions/standards to see trends
- Review by students to check for understanding
- Discussions about how to provide access to students with plans for next steps.

Limitations:

- One data point - can identify where to look, assess, etc.
- Still working on consistency for test administration
- We have over 3 more months of school to reach the end-of-year standards

Gr 5 Midyear Assessment

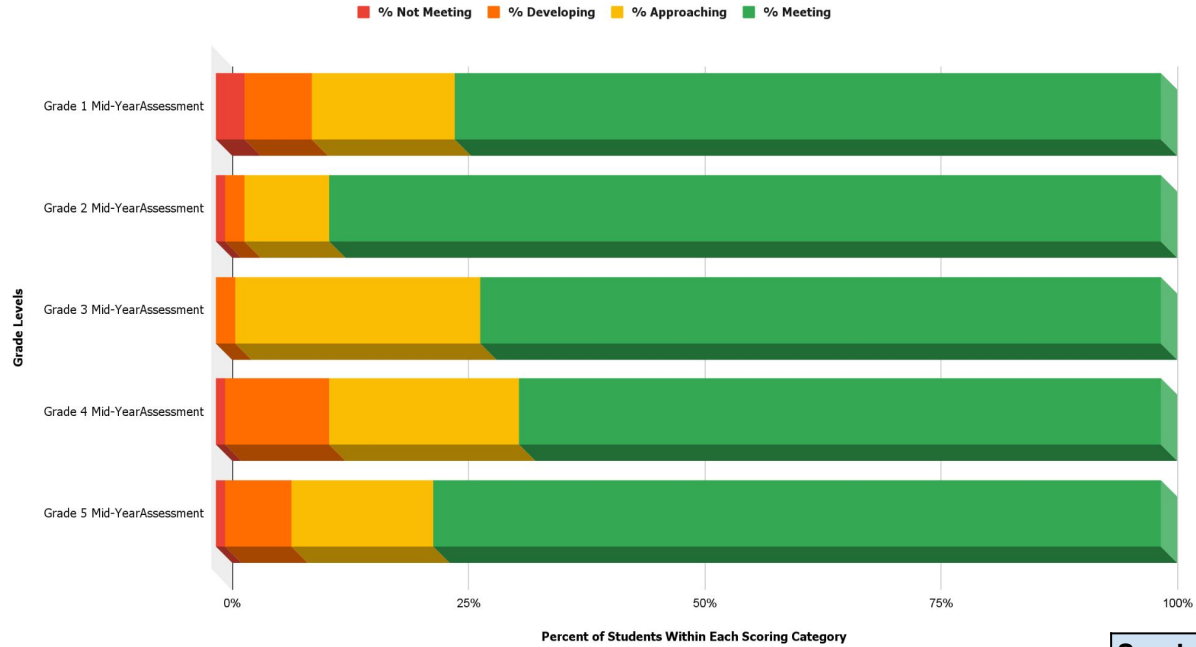
SCHOOL:	TEACHER:	DATE:
		Winter 2024

(Based on Bridges NC Checkup 2)		Items											TOTAL
ITEM >	1a-c	2a-d	3a & b	4a-c	5a & b	6a-c	7	8	9	10	11	SCORE / LEVEL OF PROFICIENCY	
DESCRIPTION >	Adds fractions with unlike denominators	Subtracts fractions with unlike denominators	Adds and subtracts decimals to hundredths	Multiplies whole numbers by fractions;	Finds the volume of a solid figure composed of	Evaluates numerical expressions that contain	Multiplies and divides decimal numbers by	Solves a multi-step story problem involving	Subtracts and multiplies decimal numbers to solve a multi-step story	Solves a story problem that involves multiplying a	Solves a measurement-related story problem involving		
Last Name	0-6	0-6	0, 1 or 2	0-3	0-6	0-3	0-2 (by 0.5)	0-3	0-3	0-3	0-3	0-40	
	4	6	2	3	6	2	2	3	3	3	1	35	
	6	2	1	3	4	2	2	3	3	1	1	28	
	6	6	2	3	6	3	2	3	1	3	3	38	
	6	2	2	3	6	2	2	2	3	3	1	32	
	6	6	2	3	4	3	2	3	3	3	1	36	
	5	6	2	3	0	3	2	1	3	3	3	31	
	6	6	2	3	2	3	2	3	3	3	3	36	
	6	6	2	3	2	3	2	3	3	3	3	36	
	4	2	2	3	4	2	2	2	3	3	3	30	
	5	6	2	2	4	2	2	3	3	3	3	35	
	6	3	2	2	6	3	2	3	3	3	3	36	
	2	2	1	1	0	2	0.5	1	3	3	0	15.5	
	6	6	2	3	4	2	2	3	2	3	3	35	
	6	5	2	3	4	3	2	3	3	3	3	35	
	6	6	1	2	6	2	2	3	3	3	3	35	
	6	4	2	3	4	3	2	1	3	3	3	34	
	6	6	2	3	6	3	1.5	3	3	3	3	35	
	6	6	1	3	4	3	2	3	3	3	3	35	
	6	5	2	3	6	3	2	3	3	3	3	35	
	4	6	1	3	0	2	2	1	3	3	3	33	
	1	4	2	2	4	2	2	3	3	3	3	33	
	2	5	2	3	6	3	1	3	2	2	2	32	
	6	5	2	3	6	3	2	2	3	3	3	35	

With this data, we...

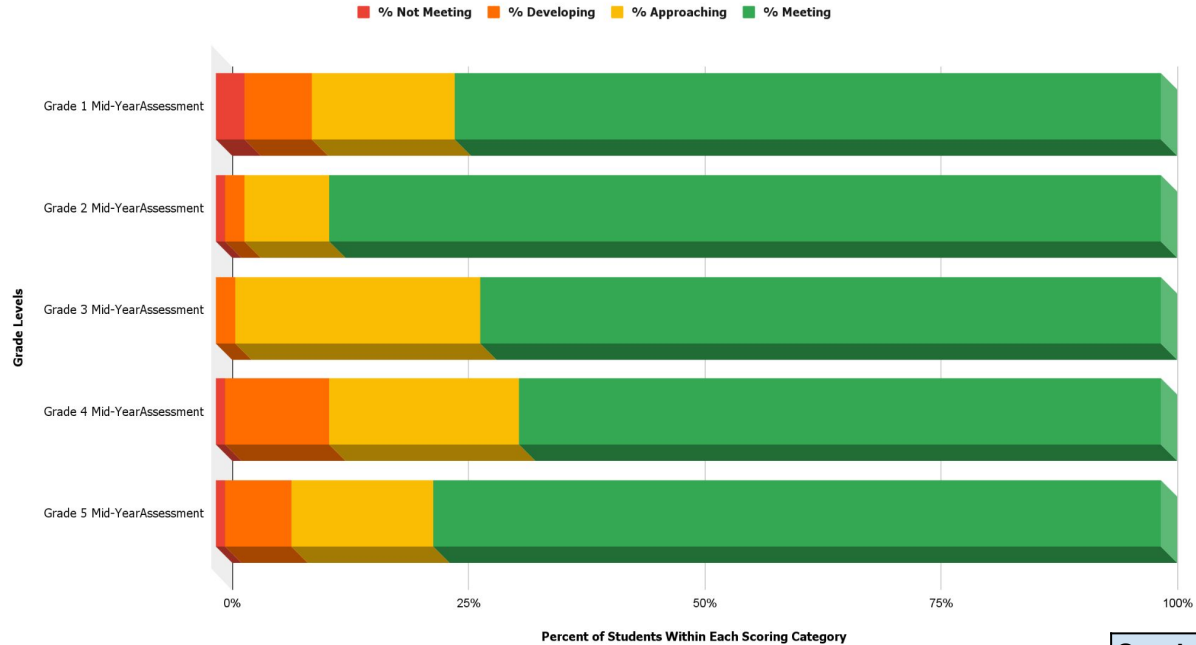
- Analyze it to identify themes.
- Plan and prepare for classroom instruction.
- Who needs more? What is needed? (Interview assessments)
- Provide interventions for those who need a more solid foundation.
- Monitor student progress.

Mid-Year Assessment Overview for Grades 1-5



Scoring Category	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5
% Not Meeting	3	1	0	1	1
% Developing	7	2	2	11	7
% Approaching	15	9	26	20	15
% Meeting	74	88	72	68	77

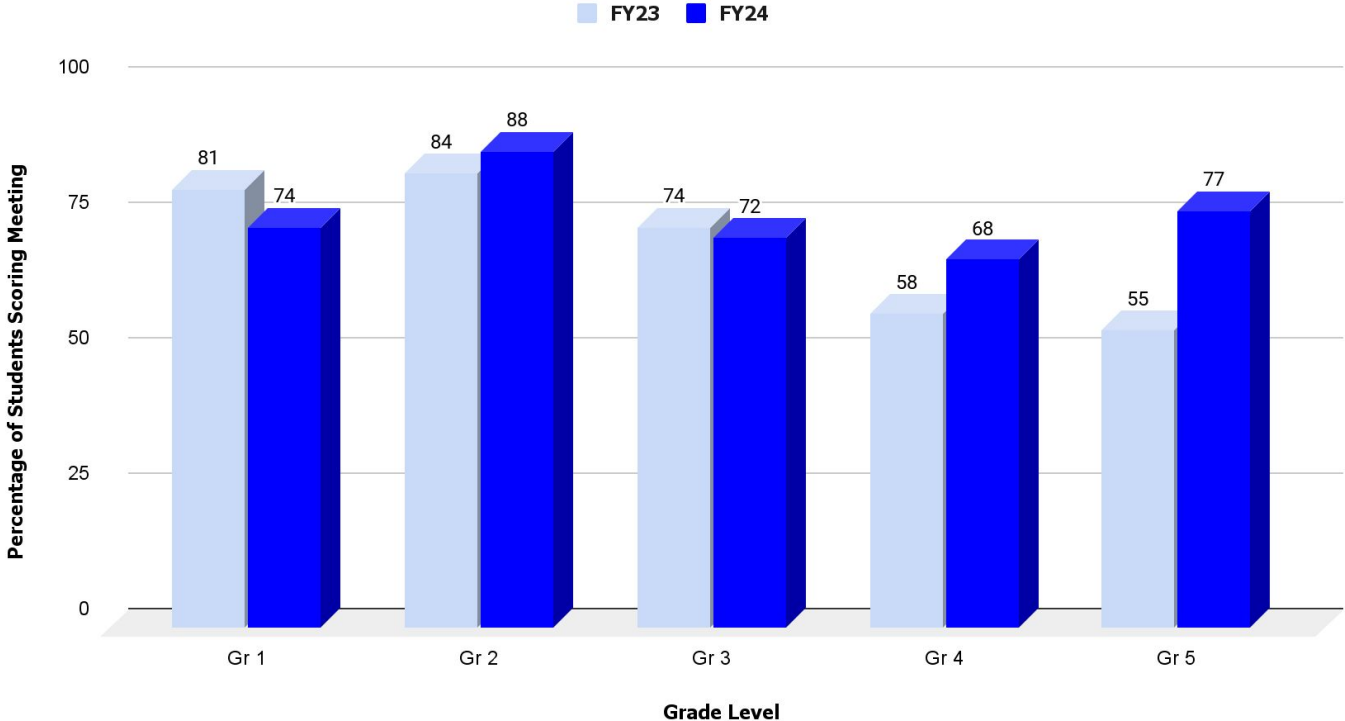
Mid-Year Assessment Overview for Grades 1-5



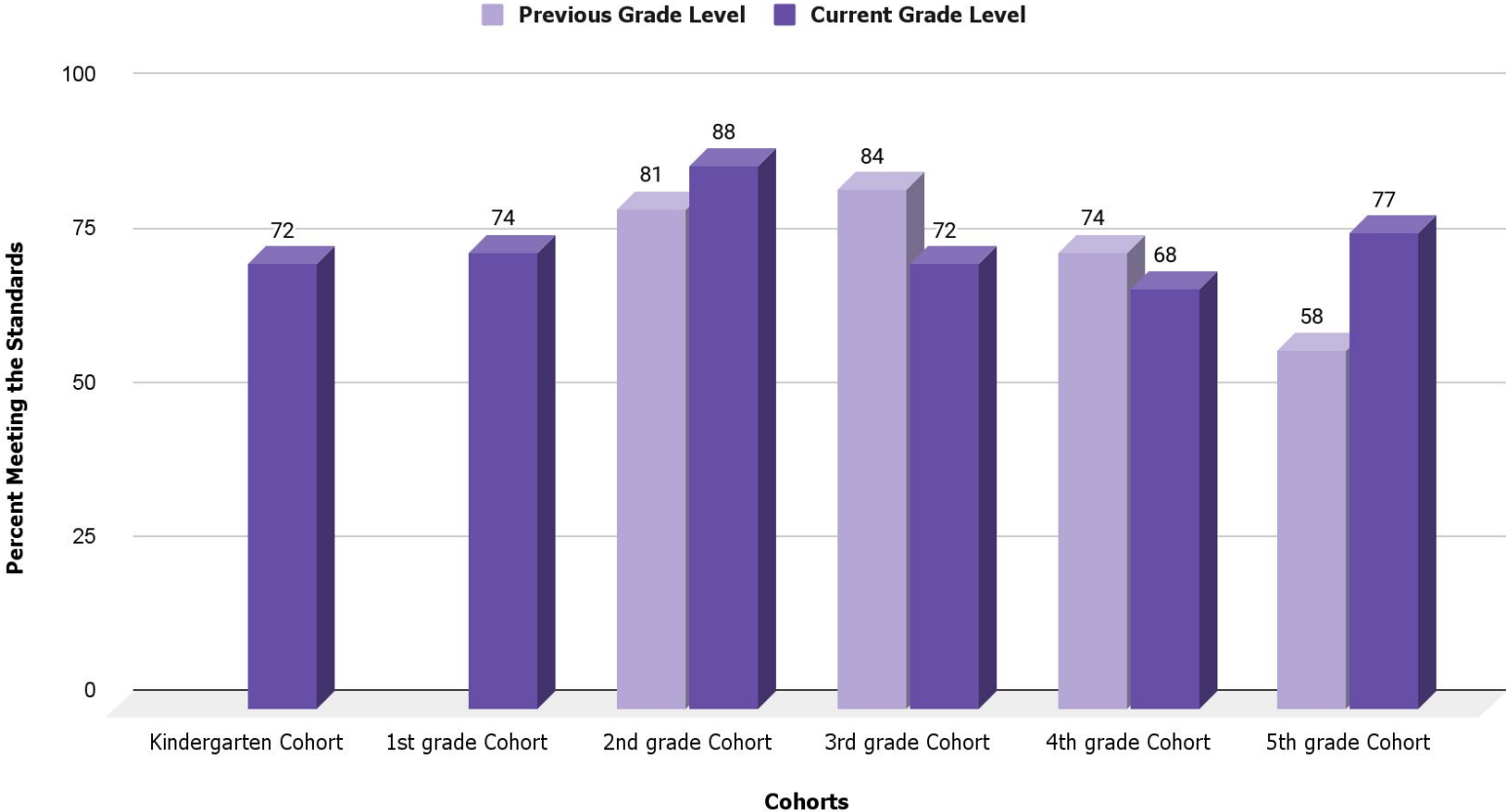
**Approaching + Meeting
> 88% at ALL Grade
Levels**

Scoring Category	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5
% Not Meeting	3	1	0	1	1
% Developing	7	2	2	11	7
% Approaching	15	9	26	20	15
% Meeting	74	88	72	68	77

Mid-Year Assessments in Grades 1-5 (FY23 and FY24)



Percentage of Students Scoring Meeting (Grade Level Cohorts over 2 years)



Examples from Mid-Year Assessments

Grade 2

Read each question carefully and write the answer on the line.

a What is 10 more than 317? _____

b What is $593 + 10$? _____

c What is 10 less than 302? _____

d What is $571 - 10$? _____

e What is 100 more than 759? _____

f What is $641 - 100$? _____

2.NBT.8: Mentally add or subtract 10 or 100 to any 3-digit number

Examples from Mid-Year Assessments

Grade 2

7 Read each question carefully and write the answer on the line.

a What is 10 more than 317? 327

b What is $593 + 10$? 603

c What is 10 less than 302? 292

d What is $571 - 10$? 561

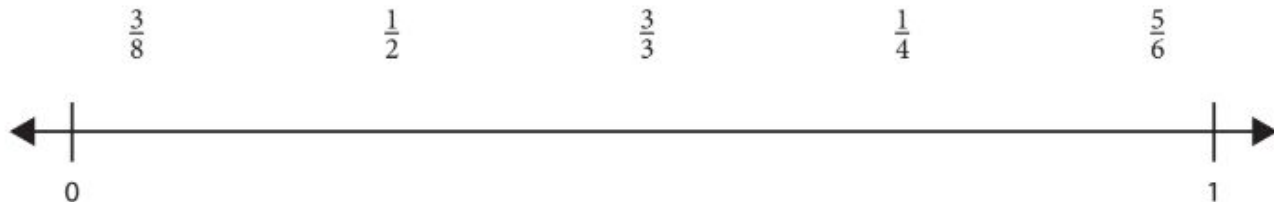
e What is 100 more than 759? 859

f What is $641 - 100$? 541

Examples from Mid-Year Assessments

Grade 3

Put the following fractions where they go and in order on the number line:



Cleo says that 8 times 5 is the same as half of 10 times 8. Do you agree or disagree with Cleo? Explain.

3.NF.2: Represent fractions on a number line diagram

3.OA.7: Multiply and divide within 100, using strategies...

3.OA.9: Identify arithmetic patterns and explain them

Examples from Mid-Year Assessments

Grade 3

Cleo says that 8 times 5 is the same as half of 10 times 8. Do you agree or disagree with Cleo? Explain.

Cleo says that 8 times 5 is the same as half of 10 times 8. Do you agree or disagree with Cleo? Explain.

Handwritten student work:

$$8 + 8 = 16$$
$$8 + 8 = 16$$
$$16 + 16 = 32$$
$$32 + 8 = 40$$
$$10 \times 8 = 80$$
$$\begin{array}{c} \wedge \\ 40 \quad 40 \end{array}$$

(40)

yes!!
cleo is right

Handwritten student work:

I agree, because

$$10 + 10 + 10 + 10 = 40$$
$$5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 40$$

5 is half of 10 and 8 is the same as 4

Ellie bought 303 grams of apples, 485 grams of grapes, and 218 grams of plums. When Ellie got home, she wondered how many grams of fruit she bought in all.

Examples from Mid-Year Assessments

Grade 4

Marco picks apples on his uncle's farm. On Monday, he filled 8 baskets of apples. On Tuesday, he filled 13 baskets. Marco put 25 apples in each basket. How many apples did Marco pick on Monday and Tuesday?

4.OA.3: Solves a multi-step story problem that involves multiplication and addition.

4.NBT.5: Multiply a whole number of up to two two-digit numbers, using strategies...

Examples from Mid-Year Assessments

Grade 4

Marco picks apples on his uncle's farm. On Monday, he filled 8 baskets of apples. On Tuesday, he filled 13 baskets. Marco put 25 apples in each basket. How many apples did Marco pick on Monday and Tuesday?

$(8 \times 25) + (13 \times 25) = ?$

$8 \times 25 = 200$

7	2	4	8
25	50	100	200

13×25

1	2	8	4	12	13
25	50	200	100	300	325

325
 $+ 200$

 525

Equation: $(8 \times 25) + (13 \times 25) = 525$

Answer: 525

Monday =	Tuesday =
8	13
+ = 21	

$21 \times 25 =$

10	10	5
$\times 25$	$\times 25$	$\times 25$
250	250	125
+ 250		
+ 125		
<hr/> 500		
<hr/> 625		

Equation: $(13 + 8) \times 25 = A$

Answer: 625 apples X

Examples from Mid-Year Assessments

Grade 5

a $\frac{2}{5} \times 4$	b $2 \times \frac{1}{10}$
c 1.25×4	

5.NBT.7: Multiply decimals to the hundredths

5.NF.4: Multiply a fraction or a whole number by a fraction

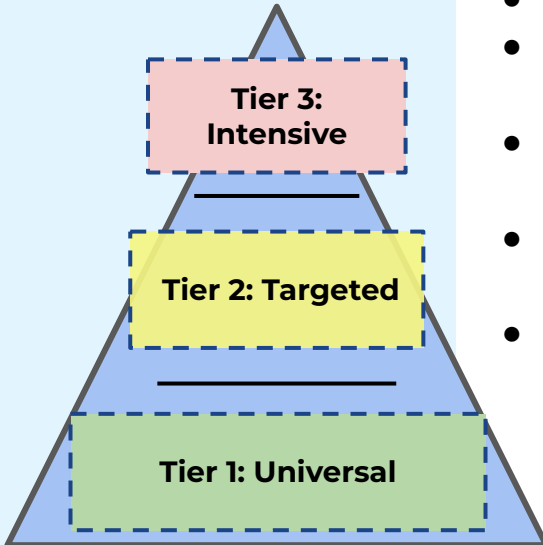
Examples from Mid-Year Assessments

Grade 5

a $\frac{2}{5} \times 4 = 1\frac{3}{5}$ $(2 \times \frac{2}{5}) \times 2$	b $2 \times \frac{1}{10} = \frac{2}{10}$
c $1.25 \times 4 = 5$ $.25 \times 4 = 1$ $1 \times 4 = 4$ $1 + 4 = 5$	

$\frac{2}{5} \times 4 = 1\frac{3}{5}$ $\frac{2}{5} \times \frac{2}{5} = \frac{4}{5}$ $\frac{4}{5} \times \frac{4}{5} = \frac{8}{5}$ $\frac{8}{5} = 1\frac{3}{5}$	b $2 \times \frac{1}{10} = \frac{2}{10}$ $\frac{1}{10} + \frac{1}{10} = \frac{2}{10} = \frac{1}{5}$
$1.25 \times 4 = 5.00$ $\begin{array}{r} 1.25 \\ + 1.25 \\ \hline 2.50 \end{array}$ $\begin{array}{r} 1.25 \\ \times 2.50 \\ \hline 5.00 \end{array}$	

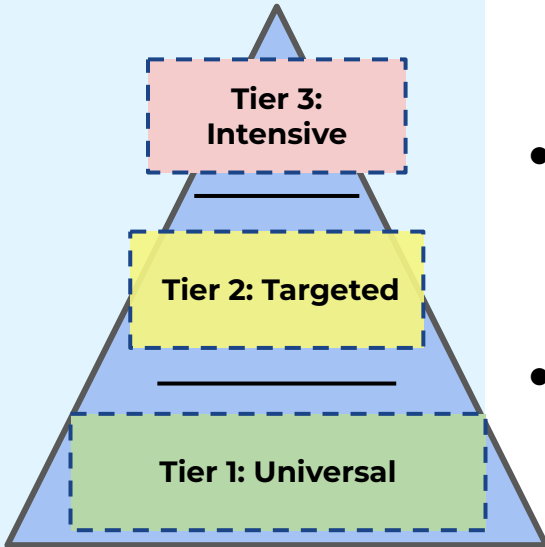
Supporting Classroom Instruction



- Math coaching and co-planning with classroom teachers to meet the needs of the students in the class
- Lessons enhanced or modified, based on student needs
- Continuing to enhance student understanding through the increased use of manipulatives and visual models
- Focus on continuing to shift instructional practices to include more reasoning within the curriculum
- Continuing to increase opportunities for include story problems within the context of the content
- In the middle grades, teachers collaborate as teams within department meeting time to plan for adjustments in practice and highlight effective practices.

Coaches also support all new elementary teachers and teachers who have shifted between grade levels. In addition, we currently have coaches working in multiple classrooms at every grade level. (~ 39 classrooms right now)

Intervention - Elementary



- Title 1 at Loring: 7 intervention groups during Loring's Power Half hours
 - Students were identified using multiple data points including benchmark assessments and individual interviews.
- Through the IST process, we identify students who may need additional supports in mathematics. While we implement supports in the Tier 1 classroom first, some students may need more. Math Coaches provide these additional interventions.
- Currently, we have 29 intervention groups running across the grade levels and schools. They meet multiple times a week and group size varies from 1-4 (depending on the need and content focus).

Reflecting on our Work

Working Well

- Increased in the number of student needs being met by a variety of interventions
- Data Meetings scheduled and taking place at all schools, multiple times a year (consistency between schools)
- Aspen - import, access, viewing, graphs
- Evolving curriculum - piloting 3rd edition which supports students of varying needs, equitable access, and increased engagement.
- Professional Development for Coaches on how numeracy develops
- Collaboration between schools/coaches - sharing of ideas, best practices
- Collaboration between coaches and teachers

Even Better If...

- Uninterrupted core learning time with math blocks distributed throughout the school day
- Increased collaboration and planning time with teachers - regular meetings with the math coach
- Additional time for teacher professional development in mathematics
- Balance the need to move forward while also providing necessary foundational instruction for students
- More consistency with test administration and scoring
- Maximize our capacity - coaches being able to be in the math classrooms during instruction

ELA

Overview:

We are here

2020-21

2021-22

2022-23

2023-24

2024-25

2025-26

Prepare

Universal Phonics
Instruction k-3

Benchmarking Tools

Building Capacity

Needs Assessment

Staff Survey

Data Review

Building Capacity

Dyslexia
Implementation Plan

Focus on Phonics

PD Decodable Texts

PD Phonological
Awareness

Data-Informed
Instructional Priorities

PD Frameworks

Focus on PD

MA Literacy Guide

Vocabulary

Complex Texts

Choose Pilot
Resources

Focus on Resources

Pilot & Select Core
Resources

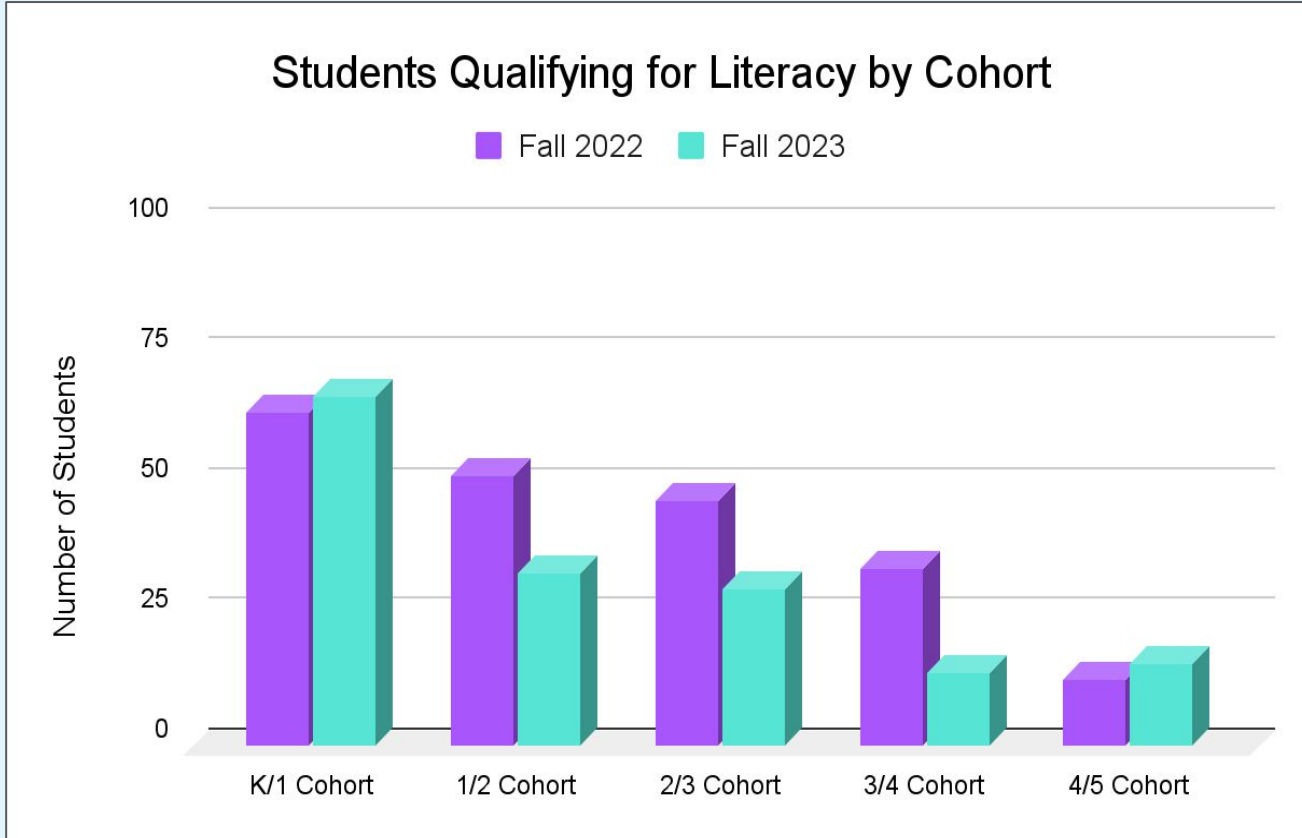
PD Writing

Focus on Implementation

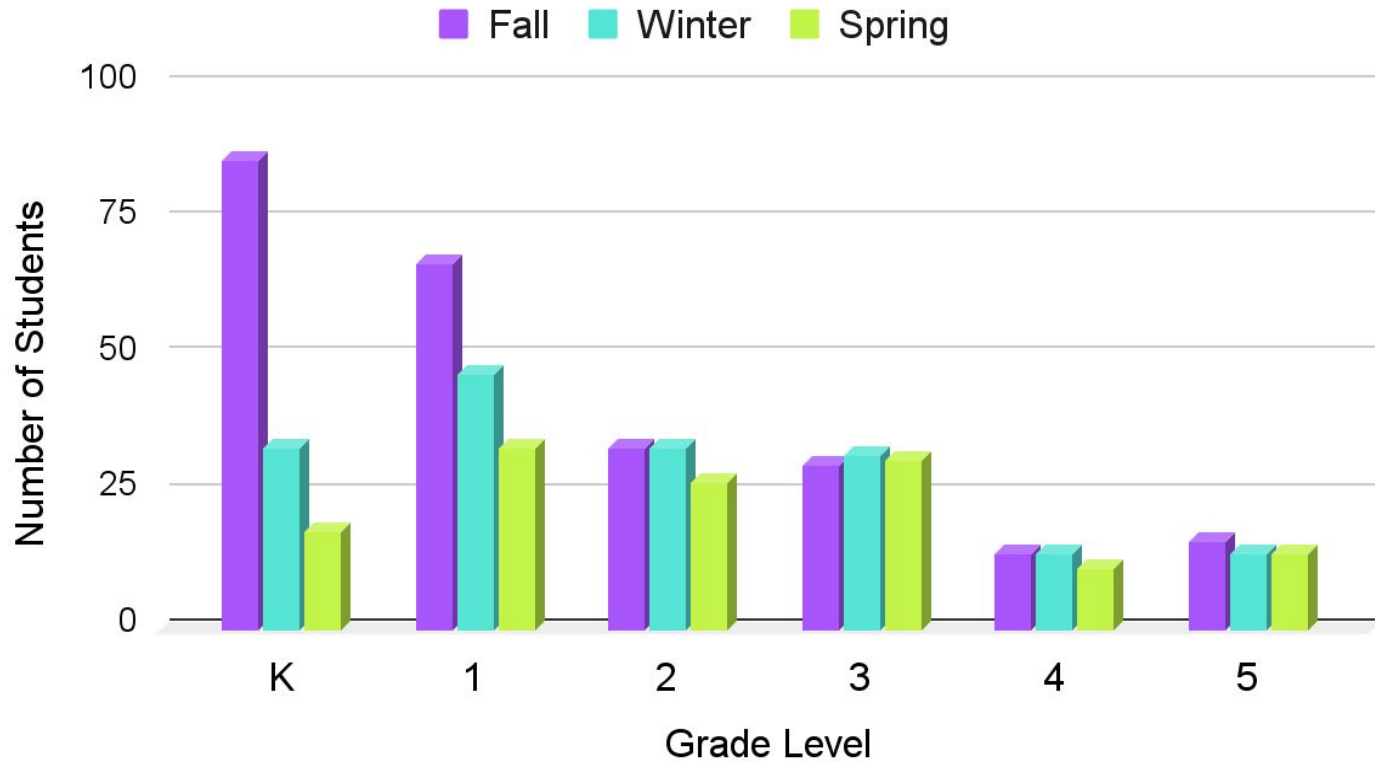
Evaluate

Revise & Refine

Intervention Data



FY24 District Intervention #s by Grade Level



Early Literacy Universal Screening Assessments

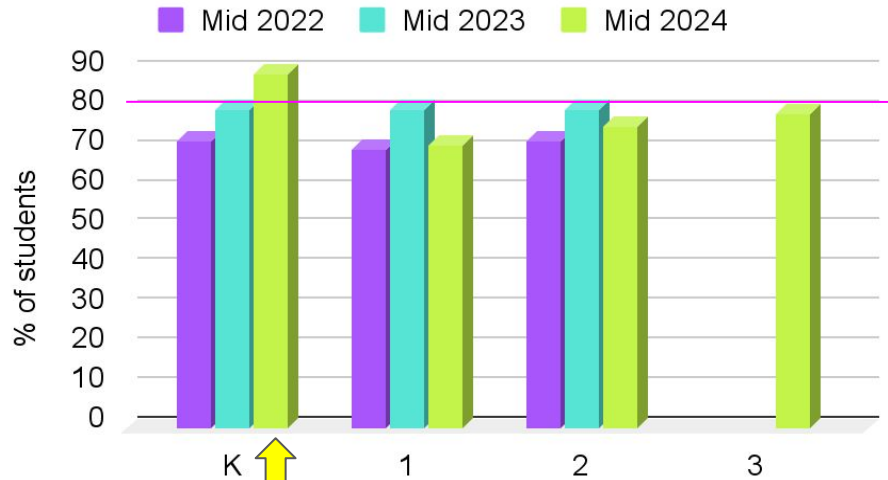
- | | |
|--|---|
| <ul style="list-style-type: none">• DO identify a student's risk for poor reading outcomes• DO help to quickly differentiate between students that need intervention or additional assessment and those that do not | <ul style="list-style-type: none">• DO NOT diagnose dyslexia• DO NOT identify a disability• DO NOT act as a substitute for a formal evaluation as part of the eligibility process for special education |
|--|---|

DIBELS Assesses:

- Letter naming (K-1)
- Phoneme Segmentation (K-1)
- Nonsense Word Fluency (K-3)
- Word Reading Fluency (K-3)
- Oral Reading Fluency (1-3)
- Comprehension (2-3)

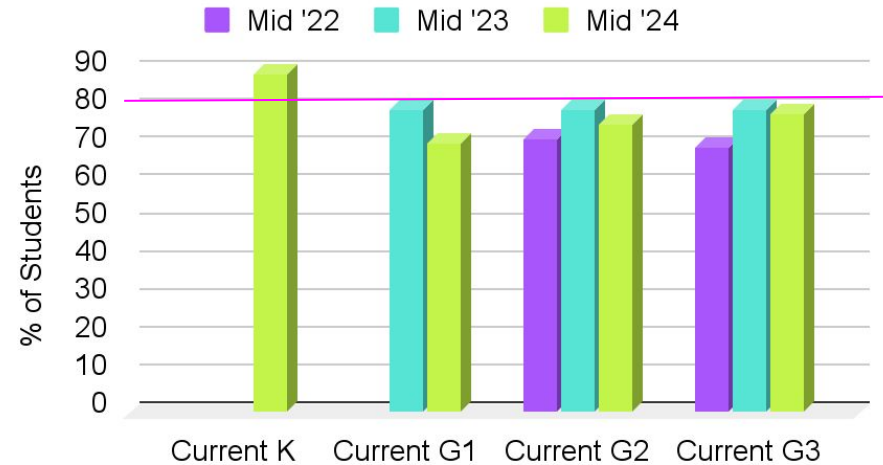
DIBELS: K-3

% Proficient in DIBELS Mid '22-'24



District-wide
push-in model

% Proficient in DIBELS by Cohort



Track my Progress: 3-5

Track My Progress is a computer-based adaptive assessment system which tracks student data over time

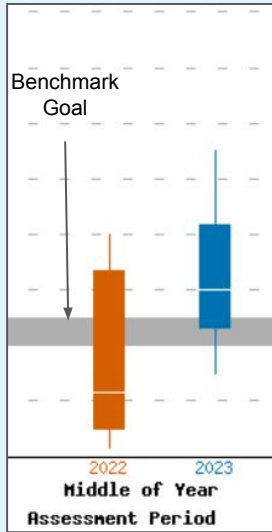
Track My Progress Assesses:

- Foundational skills
- Comprehension for fiction
- Comprehension for nonfiction
- Vocabulary acquisition and use
- Language skills
- Conventions (includes spelling)

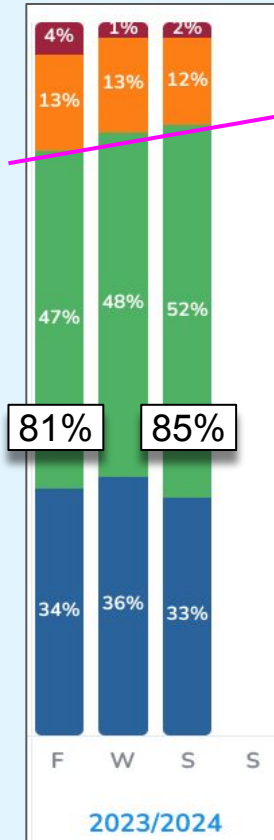
GRADE 3

Goal: ● + ● = 80%

DIBELS MAZE



TMP



Since this fall, all areas exceed growth expectations.

Areas of higher exceeding growth:

- Foundational skills
- Language skills
- Comprehension of literature

Areas of lower exceeding growth:

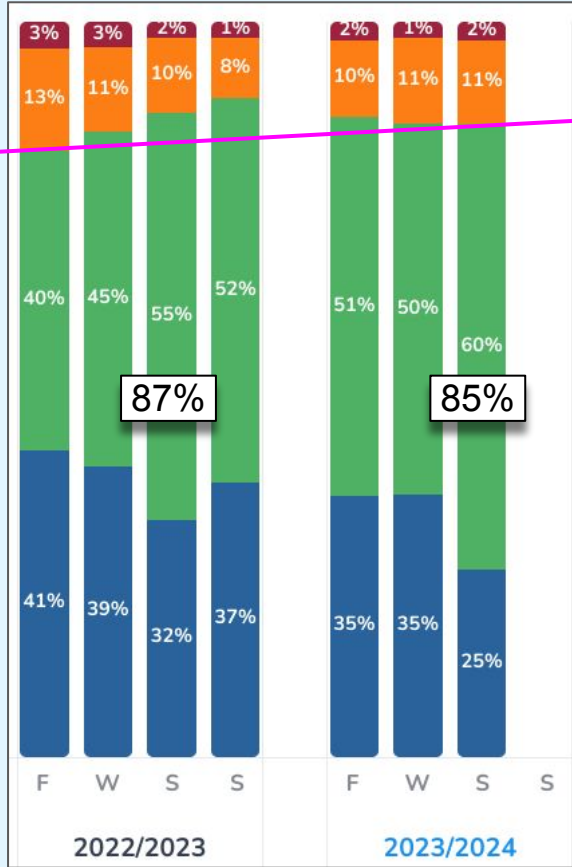
- Comprehension of informational texts
- Conventions
- Vocabulary acquisition and use

Next Steps:

- Continue Keys to Literacy practices for comprehension
- Evaluate pilot materials for quality informational texts and instruction, and the integration of conventions into language and writing

GRADE 4

Goal: ● + ● = 80%



Grade 3

Since last spring, areas that meet growth expectations:

- Vocabulary Acquisition and Use
- Conventions

Areas that are approaching growth expectations:

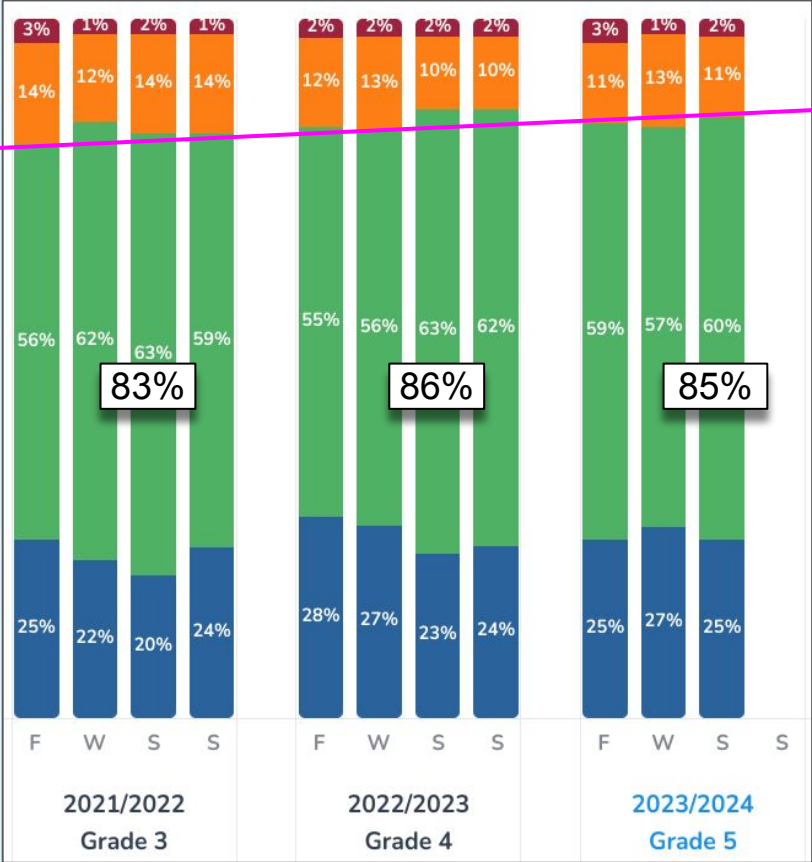
- Comprehension
- Language Skills
- Foundational Skills

Next Steps:

- Continue Keys to Literacy practices for comprehension and vocabulary development
- Evaluate pilot materials for quality texts and instruction, as well as advanced phonics curriculum

Goal: ● + ● = 80%

GRADE 5



Since last spring, areas that meet or exceed growth expectations:

- Language Skills
- Vocabulary Acquisition and Use
- Comprehension

Areas that are approaching growth expectations:

- Foundational Skills
- Conventions

Next Steps:

- Continue Keys to Literacy practices for comprehension and vocabulary development
- Evaluate pilot materials for quality advanced phonics curriculum and the integration of conventions into language and writing

Summary & Conclusions:

- All grades are exceeding, meeting, or closely meeting (70-79%) expected proficiency in overall ELA skills
- Phonics instruction is having a positive impact in grades K-3; stronger decoding ability entering grade 6
- Systemic advanced phonics instruction is needed in grades 4 & 5
- The push-in intervention model in Kindergarten is having a greatly positive impact on student growth and achievement

Next Steps:

- Continue to implement best practices learned from Keys to Literacy PD
- Evaluate pilot materials for quality texts and evidence-based instructional strategies
- Evaluate pilot materials for quality advanced phonics curriculum in grades 4 & 5
- Continue push-in intervention model for kindergarten
- Collect data using a district-wide push-in intervention model for grade 1
- Use subtest data to target tier 2 instruction by classroom teachers, literacy specialists, and literacy tutors
- Revise SMILE curriculum to include phonemic awareness, decodable reading system, advanced phonics, and progress monitoring
- Implement professional development for writing with Keys to Literacy K-8
- Develop communication strategies for families regarding early literacy screeners

DESE Regulation 603 CMR 28.03(1)(f) for Early Literacy Screening

General Responsibilities of the School District

(f) Early Literacy Screening. Effective July 1, 2023, each school district shall at least twice per year assess each student's reading ability and progress in literacy skills, from kindergarten through at least third grade, using a valid, developmentally appropriate screening instrument approved by the Department. Consistent with section 2 of chapter 71B of the general laws and the Department's dyslexia and literacy guidelines, **if such screenings determine that a student is significantly below relevant benchmarks for *age-typical development* in specific literacy skills, the school shall determine which actions within the general education program will meet the student's needs, including differentiated or supplementary evidence-based reading instruction and ongoing monitoring of progress.** Within 30 school days of a screening result that is ***significantly below*** the relevant benchmarks, the school shall **inform the student's parent or guardian of the screening results and the school's response** and shall offer them the opportunity for a follow-up discussion.

Questions