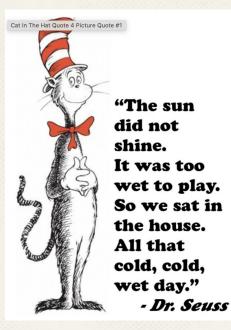


Where the *future* grows.

District 228 K-5 Math Enhancement Presentation to the BOE

February 10th, 2022 TEACHLEARNCARE

All Things Considered...



A lesson from <u>Cat in the Hat</u>...

Although the rain put a hardship on the children, the Cat challenged them to be innovative and creative. "Sit and wait" wasn't an option with the Cat. It was hard. It was messy. There were unexpected "Things"! Mom wasn't going to like it... but in the end the kids had a whole new perspective of the rainy days.

The past two years have been much like the adventures of this childhood story... it continues to be bumpy... and rainy... so... what will we do?



The What...

Goals & Vision for Math

District #228 Goals

| Goals | Progress | Next Steps |
|---|--|---|
| ELT ELT will support the improvement of the math RtI program through collaboration with math interventionists, ACAI, and School Data Teams. | Frequent communication regarding Math Intervention Program; Creation of Math Team (Tier 1); Data Days, Priority Standards. | Set new 2022-2023 goals with ELT. Continue growth and leadership of Math Team members. Expansion of Interventions, including enrichment. |
| GMS Work with the GMS Math team to utilize NWEA MAP Growth assessment, along with spring 2021 IAR achievement results, to set math improvement targets. | Student Goal Setting, Implementation and use of MAP Accelerator 6th-8th, Student Growth Recognition and Celebration; Math Team for professional growth (Tier 1), Priority Standards. | Identify 2022-23 math improvement targets utilizing spring MAP and IAR results. Maximize use of MAP Accelerator and intervention tools by expanding student goal setting. |
| District #228 29% of our fifth grade students meet or exceed Illinois Assessment of Readiness (IAR) standards in Math. | Monitor IAR scores of 5th grade students. Research indicates 5th grade math achievement is a key predictor for future mathematic success. | Compare IAR 2022 scores to IAR 2021 scores. Use MAP scores to monitor achievement, particularly in 5th grade math. |
| Board of Education The Board shall allocate additional local, state, and federal resources to increase Math achievement at the elementary level. | Math Interventionists expansion opportunities (teachers, paras), math PD opportunities, math resources (manipulatives, books, etc.), MAP Accelerator, Reflex. | Continue partnership and updates to BOE regarding their investment and its impact in the area of mathematics. |

Long-Term Math Vision

Develop mathematical thinkers through high-quality, research based learning experiences for all students...

Through sustainable, research based best practices for teaching and learning...

In order to positively impact student achievement in mathematics.



The Why...

Our most important motivation...

Making Sense of Math











Do this one with working in your group How many ways can you show this number?

503



The How...

Learning Supports for Students & Staff

Teacher Support

Monthly Meetings

Each month interventionists & ACAI collaborate with classroom teachers on curriculum and best practices in mathematics.

BET Story Problems Give only the first sentence. Students visualize and Let's Try One! sketch it ou sk. "What do ve When Bill bought a marigold plant, it was ¼ inch tall. next sentenci After the first week, it measured 1 1/12 inches tall After the second week, it was 1 11/12 inches After week 3, it was 2 % inches tall What was the height of the plant at the end of week 4'

Math Team

17 Teachers, K-8th grade volunteered to be learners and pioneers of Tier 1 best practices in mathematic instruction with professional coaching support from Janet Moore (Bloomington ROE Math Coach and Dr. Robert Mann (WIU).

Math Tips

Provide best practice resources, PD and lesson ideas for teachers to use in their classroom to make powerful math moments.





FOR YOUR

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are over 100

| TH BEFORE BED | TAP INTO TEEN | MATH PD |
|--|---|---|
| Math Before Recess? or | MINDS | EARBUDS |
| th Before LunchCheck out se resources to spark math sussions and math talks. | Let's spark curiosity. Check out these 3-Act Math Tasks and | Making Math Podcast of TO |
| s://mathbeforebed.com/ | PBL Math Lessons that align with your current units for our Middle School students. | topics. I've lis of these (the and they are |
| eck out the FREE e-book | https://tepintoteenminds.com/ | https://maker |

Math Enrichment Lesson Development - Problem Solving

Math

Concepts

and

Application

Math Team Members

> Prioritizing Math Standards



Examining Student Work Samples (Mathematical Reasoning & Assessment Feedback) Student Self-Reflection on Math Skills

Processing Math Assessment Data

> 3-Act Math Tasks

Math Talks (Pilot and Modeling)

Differentiated Math Centers

ELEMENTARY MATH RTI



Purpose: The purpose of Elementary Academic RtI is to provide the highest quality instruction and interventions that will match the needs of individual students in order to ensure that all children reach their fullest potential.

Components of Math Rtl Program



Program Components

Skill Based & Standards Aligned

Skill support for students is designed and targeted based on priority standards and foundational skills identified as weaknesses for students.

Most interventions are delivered through hands-on approaches using the Concrete-Representational-Abstract approach to mathematical thinking development.

Support for math is also provided in some classrooms through a "push-in" approach in order to increase frequencies of feedback and "on the spot" reteaching opportunities. TEACHLEARNCA

Progress Monitoring

Student progress is monitored through AIMS Web, as well as skill based pre and post assessments.

Student achievement is monitored through MAP and classroom performance related to grade level standards.

concrete

Representational

This picture shows how to use the CRA instructional approach with the problem 4+5=9

Abstract

4+5=9





Making Sense of Math











So What...

Student Data

MAP Accelerator

Consistent use of MAP Accelerator has lead to **+2-3** point gains above other students (3rd-5th).

The average student who practiced for 30 minutes a week or more in MAP Math Accelerator increased their math score by **at least +3** points (6th-8th).



Winter 2022 Data Overview

Reflex Math





MAP Growth (K-8)

Ist-8th grade students Mean MAP scores on the Winter Benchmark indicated growth from Fall to Winter.

Kindergarten showed above average achievement the Winter MAP Math Benchmark Assessment.

Ist-5th Grade students had average achievement for the Winter MAP Math Benchmark Assessment.

\neg Rtl Data Fall to Winter (21-22) \neg

| Average MAP RIT Score Increase | K-2 | 3-5 |
|--------------------------------|-------|------|
| Tier 2 | +5.3 | +8.2 |
| Tier 3 | +10.1 | +8.3 |
| Transitioned Students | 12 | 8 |



Now What?

Moving Forward

Key Takeaways

Rose- (Successes) *Students are making growth. *Math Rtl Implementation K-5. *Prioritized Standards to Focus Teaching <u>and Target</u> Learning. Thorn-(Challenges) *Inconsistent Data due to COVID *Unfinished Learning *Learning Loss Recovery will take time. *Bud-*(*Opportunities*) *Tier 1 Math Instructional Practices. *Enrichment *GMS Support Math RtI Expansion *Coaching

Thank you!



SCHOOL DISTRICT #228

Where the *future* grows.