

# Update on Mathematics

*October 3, 2019*



# How we will know when we've succeeded...



## Test Scores

## Attitudes



I LOVE  
MATH!

# Why Math Matters...

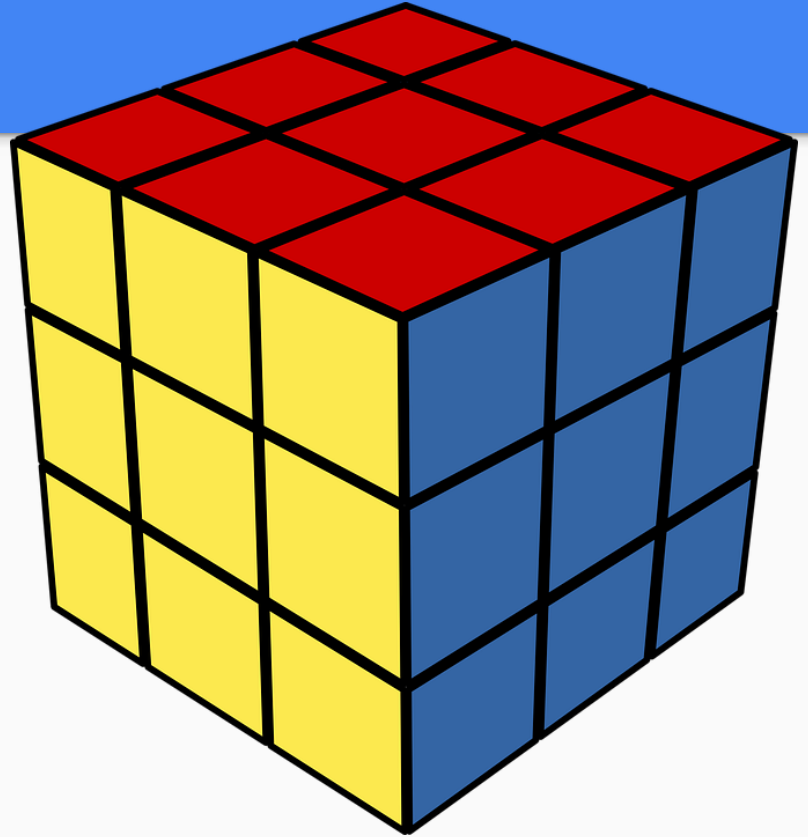
Math is...

Solving Problems

Critical Thinking

Life Skills

FUN!



Watch this...

<https://youtu.be/W1K2jdjLhbo>

# Our Math Self-Study

**The Team...** 21 of us representing every school and grade, regular and special education, teaching and administration, classroom teachers, interventionists and coaches

**So far...** we met on October 1

- we formed 5 sub-group work teams

- we developed questions

- we set November 5 as the date on which we will share our

findings

# Math Self-Study

Team 1: Curriculum and Resource Alignment

Team 2: Instruction

Team 3: Assessment and Data

Team 4: Attitudes and Perceptions

Team 5: How Are We Like and Unlike Others

# Curriculum and Resource Alignment

Are we text dependent? Do we consider the resources the curriculum or is the curriculum the curriculum?

How are we supplementing our math programs? (problem solving, “level 4” problems)

Are our programs, within the district aligned with one another? Are there gaps?

Do Stepping Stones and Big Ideas align with the common core state standards and SAT?

Are we completing topics before testing? End of year? Pacing?

Is there enough time in the day to complete math topics?

How are we (are we?) using benchmark assessments?

How are our curricular resources rated by professional agencies?

What is available for students who excel, i.e. multivariable calc?

Are our classroom assessments, from the resources, aligned to SBAC and SAT?

Where are our assessments coming from?

Is intervention/enrichment built into curriculum?

# Instruction

What does instruction look like as the grade levels go up? Teacher time vs. student time? (air time?)

How much time on task do we devote to mathematics at each grade level? And with what frequency?

How does this compare to other subjects at the elementary level?

What instructional strategies do we rely on? What materials do we use to support student learning?

How do we design our mathematics lessons?

On observation, what are the students doing? How much opportunity exists for student collaboration and communication?

On observation, what are the adults doing? Does special education math instruction differ and if so, how?

How are we using intervention time?

What do we assign for homework and how does it support student learning? What is the length? How is hw used? What % of students complete it? How is data being used to drive instruction?

What supports are provided? (coaches, sped, tier  $\frac{2}{3}$ , para)

Do we perceive a progression of skills? Are manipulatives used K-12?

How are the lessons structured? (direct instruction, groups, stations) Is there common use of vocabulary?



# Assessment and Data

What data are we collecting right now? (SBAC, Star, PSAT, SAT, MOD, MS & HS assessments)

What methods do we use for informal assessment? Which are good?

Is STAR a good indicator for SBAC/SATs?

Who creates assessments other than standardized ones?

What formal methods of assessment do we use?

Do we use the SBAC interim assessments?

Are our informal and formal assessments aligned with each other and to SBAC and SAT?

With what frequency do we assess formatively? Summatively?

What do we do with the data?

How are we using our assessments to drive instruction and intervention?

What are consistently our areas of strength?

What strands are we weaker in?

# Attitudes and Perceptions

How do students feel about math and when does it shift, if it does, from positive to negative?

How do teachers feel about their ability to teach math in their current role?

How do parents feel about their math skills and their ability to support their children's learning?

Is math fun?

Is math learning a community priority?

Do support staff feel able to support math instruction?

# How Do We Compare to Others:

## ~ Cheshire, Monroe, Fairfield, Greenwich, Region 5

What resources and programs do they use? Are they aligned to SBAC and SAT?

What is their curriculum timeline?

How are students graded? Standards based?

What professional development is provided?

What is the homework policy?

How much instructional time do they devote to math at each grade?

Do they have a block schedule at MS and HS?

How much outside tutoring/prep classes occur?

What support for intervention/enrichment is given to students and what does it look like?

Is math learning a community priority?

Do they provide extra help after school or in the summer?

Who teaches math at the elementary level? All teachers? Or is there some departmentalization?

To what do they attribute their growth and success?

# Other things that are happening...

STAR testing to identify students for intervention, starting in grade 1

Math Menus and Anchor Tasks at Consolidated

Middle School Math Workshop

Tier 1 Intervention with classroom teachers

Integration of math into science and social studies

Rebel Time for personalized learning

PSAT-SAT question/response analysis

Khan Academy linked from PSAT

Focus on HQI

HS Science teachers taking math goals as part of teacher evaluation

Stay tuned for...

Data Presentation, 10/17

Mathematics Update, 2/20

