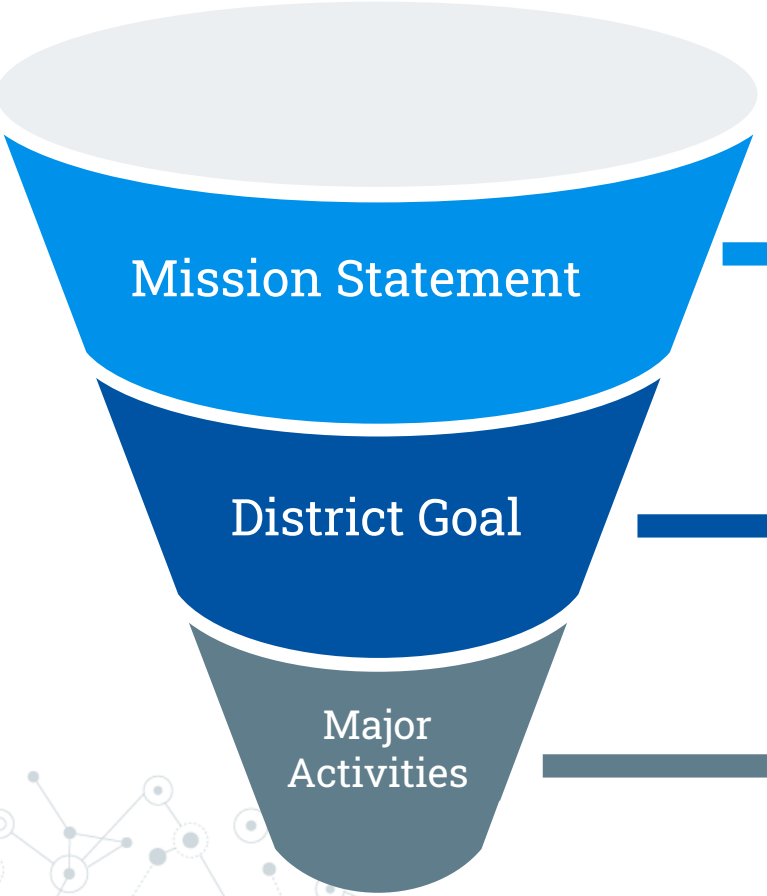
Cherry Hill PUBLIC SCHOOLS

Eureka Mathematics Curriculum and Instruction Update

6/28/22

Cherry Hill PUBLIC SCHOOLS



We shall provide all children with an education that develops open-minded thinkers with the strong academic and interpersonal skills to thrive in an ever-changing world and make it a better place for all.

Purpose and Passion:
Develop highly engaging learner-centered experiences within an environment that promotes voice, choice, and passion for learning.

As part of the Blue Print for Student Success, review and analyze the curriculum based on student achievement through the curriculum management and revision cycle.

Purpose of K-12 Mathematics

Develop Deep Mathematical Understanding

Understand and Critique the World

Experience Wonder, Joy, and Beauty

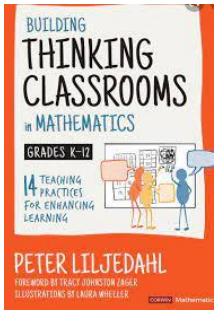
NCTM

NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS

What We Teach

Curriculum

EUREKA MATH®



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Instruction

How We Teach

desmos

What We Teach

Curriculum

EUREKA MATH®

Courses	First Year of Implementation
Kindergarten - 5th grade	2019-2020
Math 6, 7, and 8	2021-2022
Algebra	2022-2023

New Jersey Student Learning Standards for Mathematics

"For more than a decade, research studies of mathematics education in high-performing countries have concluded that mathematics education in the United States must become substantially more **focused and coherent** in order to improve mathematics achievement in this country."

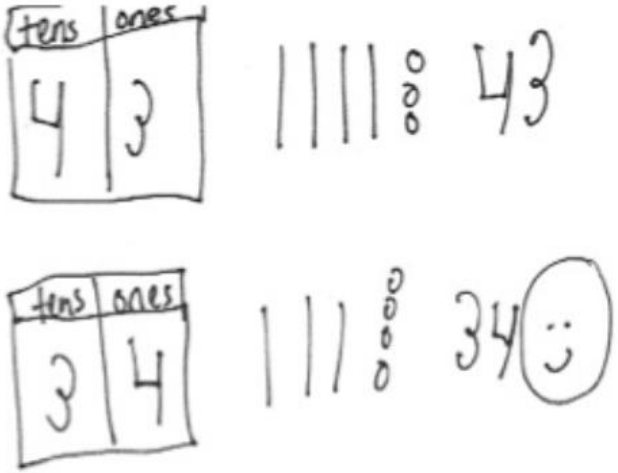
High School Algebra:
Arithmetic with Polynomials and Rational Expressions

HSA-APR.A.1

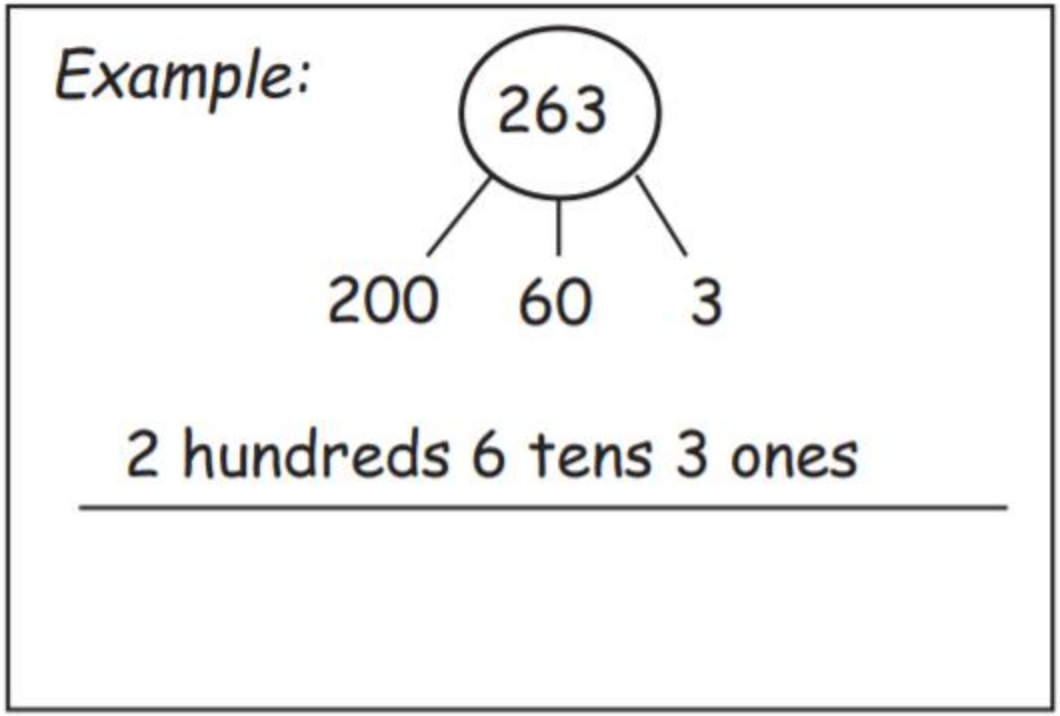
Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

1st Grade

Sue is writing the number 34 on a place value chart. She cannot remember if she has 4 tens and 3 ones or 3 tens and 4 ones. Use a place value chart to show how many tens and ones are in 34. Use a drawing and words to explain this to Sue.



2nd Grade



4th Grade

1a. **On the place value chart below, label the units and represent the number 90,523.**

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
		9	0	5	2	3

b. **Write the number in word form.**

Ninety thousand, Five hundred twenty-three

c. **Write the number in expanded form.**

90,000 + 500 + 20 + 3

5th Grade

c. 57.281

10's	1's	$\frac{1}{10}$'s	$\frac{1}{100}$'s	$\frac{1}{1000}$'s
5	7	2	8	1

$$57.281 = 5 \times 10 + 7 \times 1 + 2 \times \frac{1}{10} + 8 \times \frac{1}{100} + 1 \times \frac{1}{1000}$$

$$= 5 \times 10 + 7 \times 1 + 2 \times 0.1 + 8 \times 0.01 + 1 \times 0.001$$

Middle School

10^9	10^8	10^7	10^6	10^5	10^4	10^3	10^2	10^1	1	$\frac{1}{10^1}$	$\frac{1}{10^2}$	$\frac{1}{10^3}$	$\frac{1}{10^4}$	$\frac{1}{10^5}$	$\frac{1}{10^6}$	$\frac{1}{10^7}$
billions	hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones	tenths	hundredths	thousandths	ten thousandths	hundred thousandths	millionths	ten millionths

Write 125 in expanded form.

$$125 = 1 \cdot 10^2 + 2 \cdot 10 + 5$$

Write 432 in expanded form.

$$432 = 4 \cdot 10^2 + 3 \cdot 10 + 2$$

Add the expanded forms of problems 2 and 3 to find the total sum.

$$\left(1 \cdot 10^2 + 2 \cdot 10 + 5\right) + \left(4 \cdot 10^2 + 3 \cdot 10 + 2\right)$$

$$= \left(1 \cdot 10^2 + 4 \cdot 10^2\right) + \left(2 \cdot 10 + 3 \cdot 10\right) + \left(5 + 2\right)$$

$$= 5 \cdot 10^2 + 5 \cdot 10 + 7$$

Find the sum $(x^2 + 2x + 5) + (4x^2 + 3x + 2)$. Combine like terms.

$$\begin{aligned} \left(x^2 + 2x + 5\right) + \left(4x^2 + 3x + 2\right) &= \left(x^2 + 4x^2\right) + \left(2x + 3x\right) + \left(5 + 2\right) \\ &= 5x^2 + 5x + 7 \end{aligned}$$

High School Algebra:
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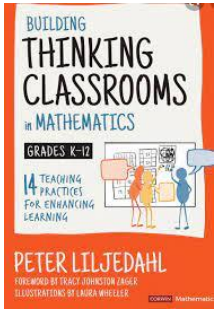
HSA-APR.A.1

Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.



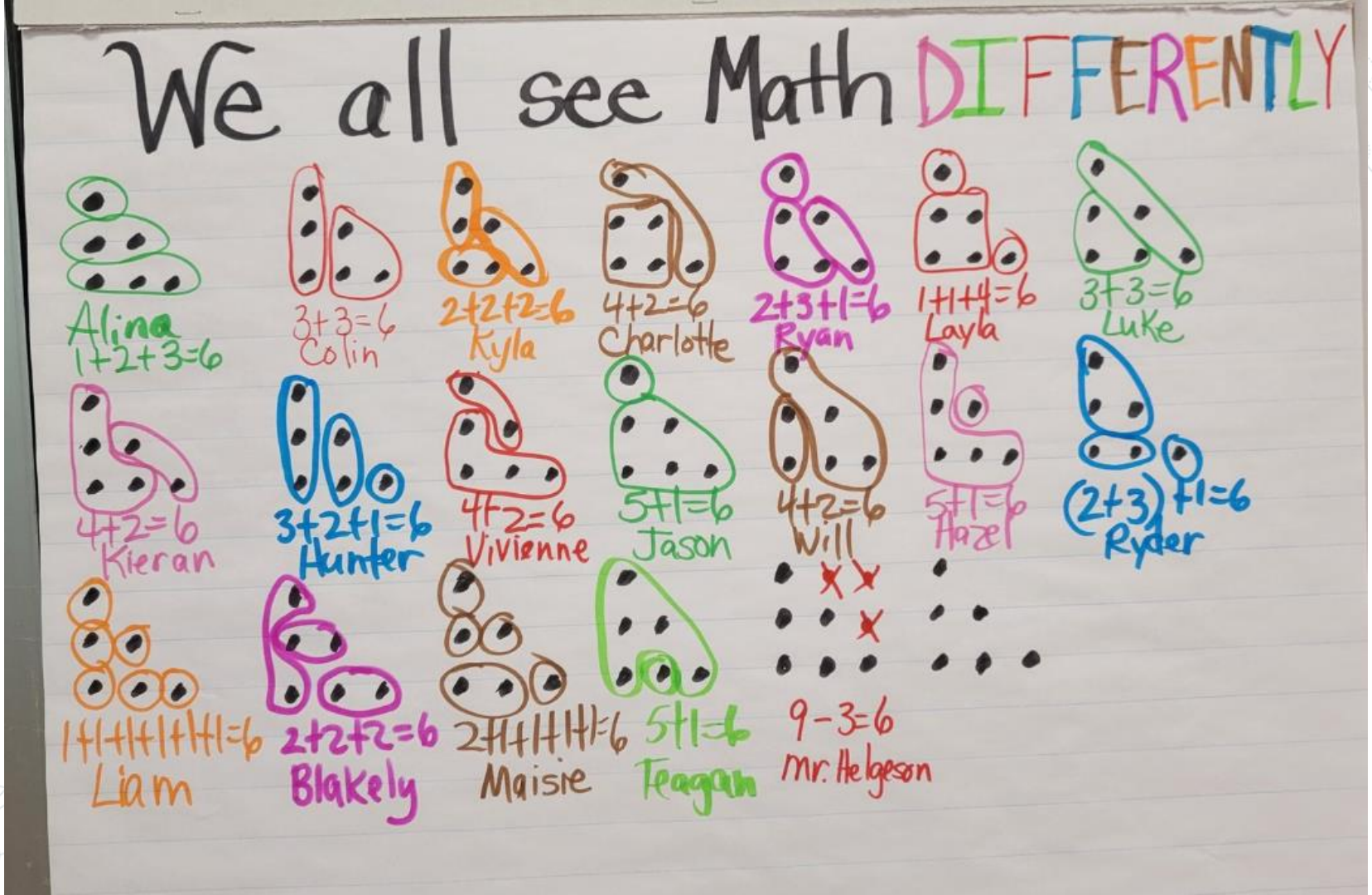
Instruction

How We Teach

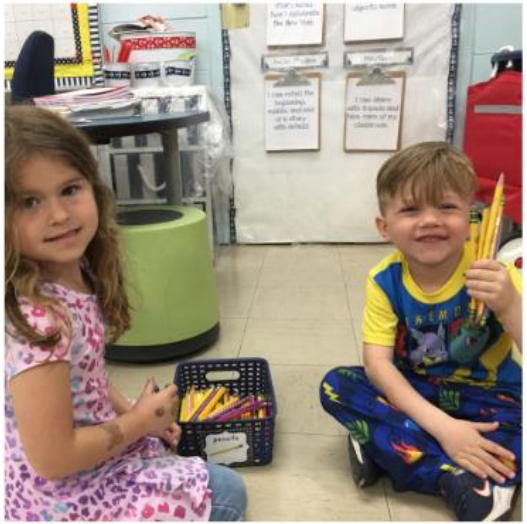
Guiding Principles for Mathematics Instruction

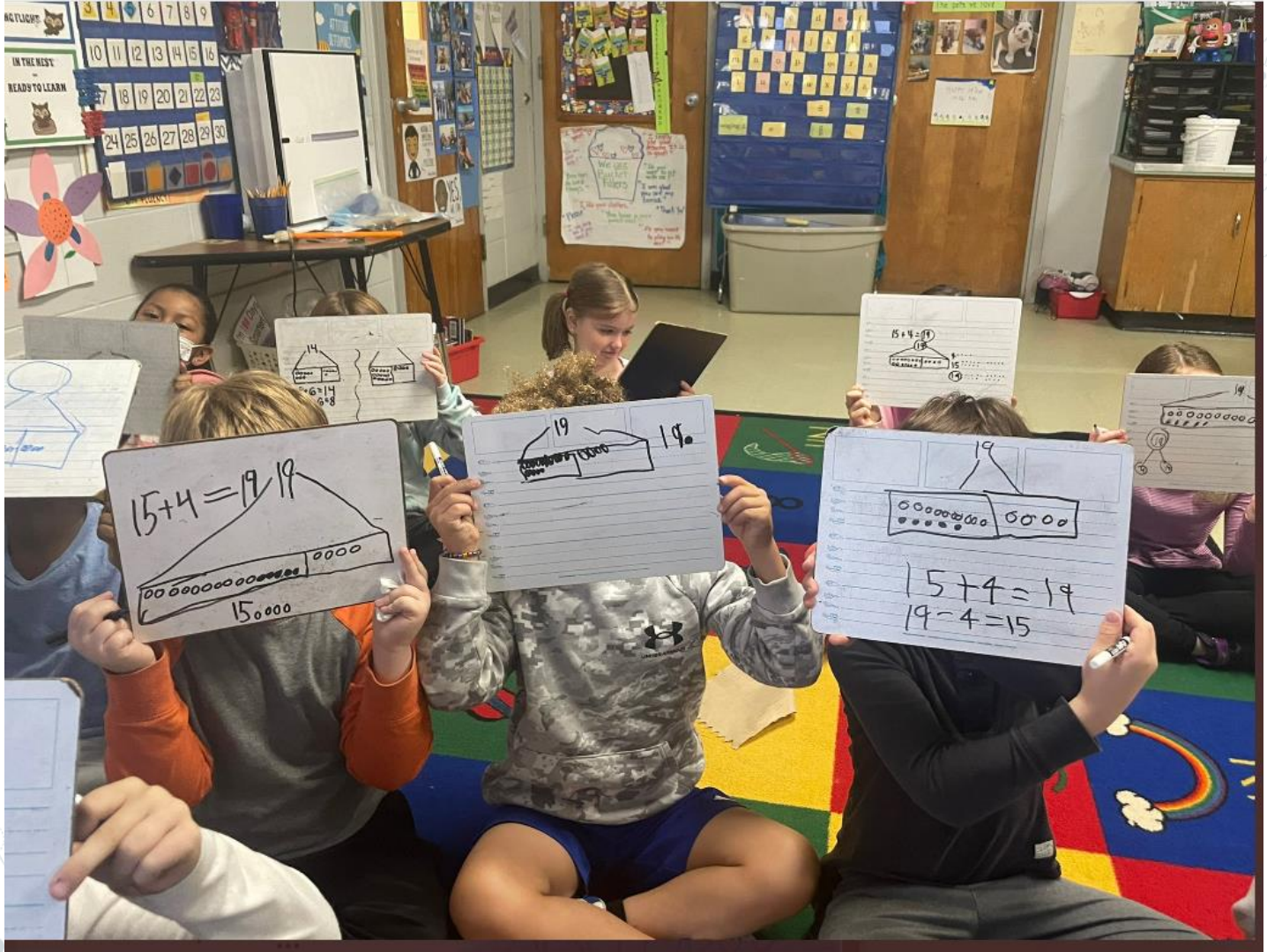
- All students can and should develop a belief that mathematics is sensible, worthwhile, and doable.
- All students are capable of making sense of mathematics in creative, interactive, and relevant ways.
- All students can and should engage in rigorous mathematics through rich, challenging tasks.

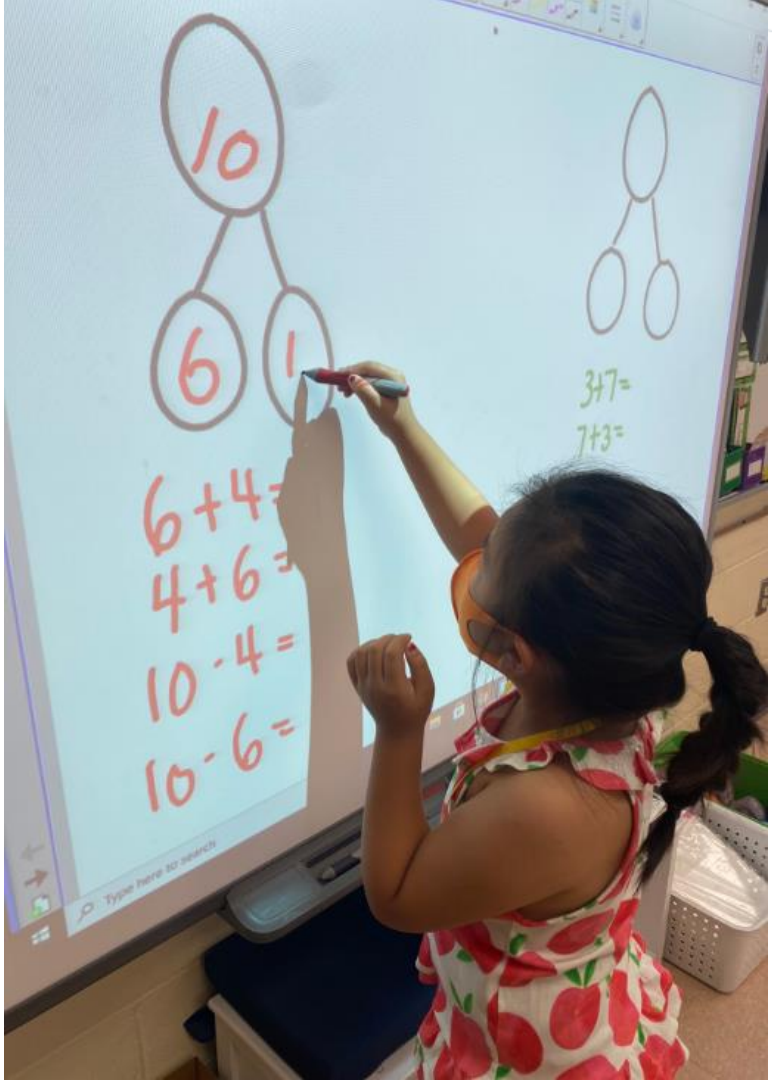
We all see Math DIFFERENTLY

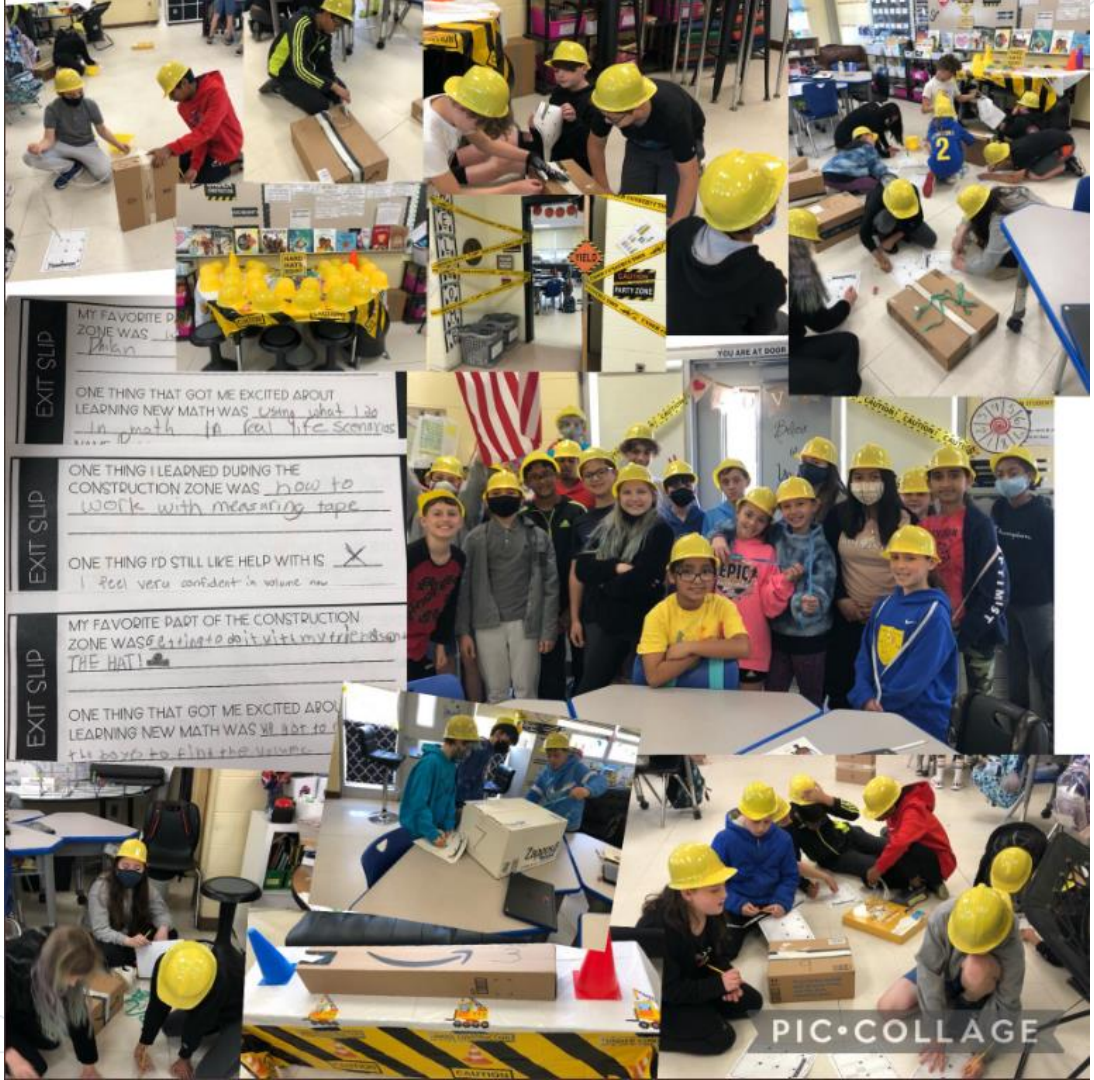


STOP

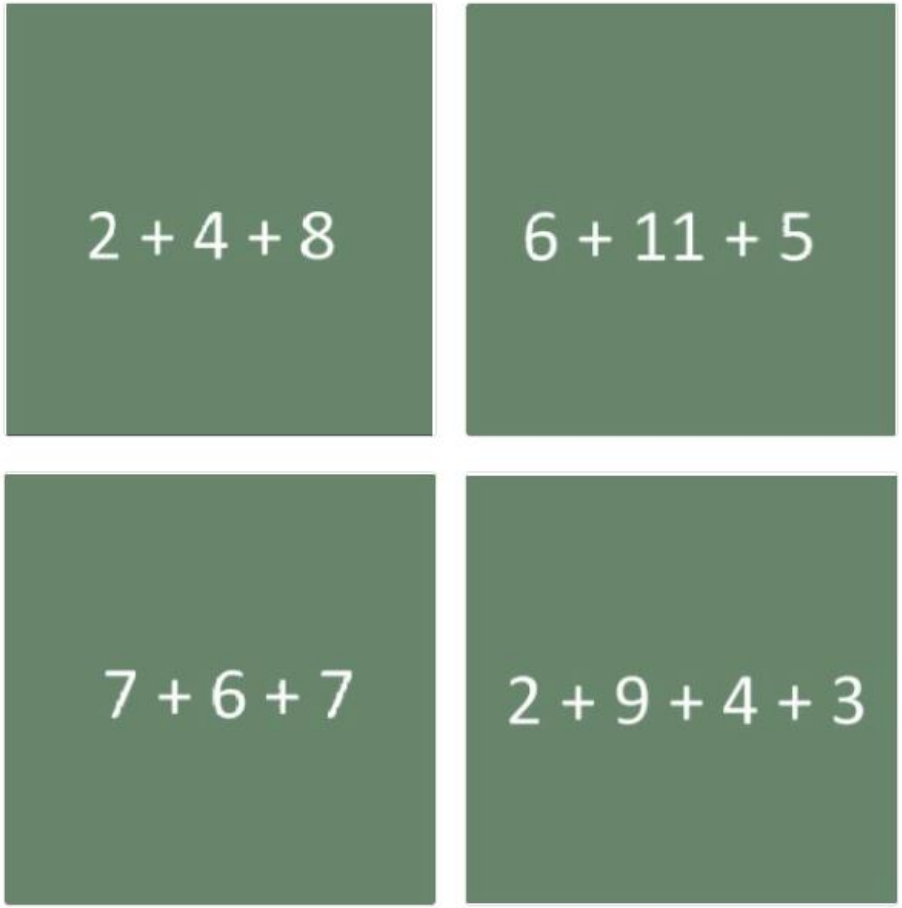



15+4=19
19
19
15+4=19
19-4=15


10
6
1
6+4=
4+6=
10-4=
10-6=
3+7=
7+3=


EXIT SLIP
MY FAVORITE P
ZONE WAS
Dylan
ONE THING THAT GOT ME EXCITED AROUT
LEARNING NEW MATH WAS using what I do
in math in real life scenarios
EXIT SLIP
ONE THING I LEARNED DURING THE
CONSTRUCTION ZONE WAS how to
work with measuring tape
ONE THING I'D STILL LIKE HELP WITH IS X
I feel very confident in volume now
EXIT SLIP
MY FAVORITE PART OF THE CONSTRUCTION
ZONE WAS
THE HAT!
ONE THING THAT GOT ME EXCITED ARO
LEARNING NEW MATH WAS
HELP
PARTY ZONE
YOU ARE AT DOOR
CAUTION
PIC•COLLAGE

WHICH ONE DOESN'T BELONG?



Annie Easley

This one has all even numbers.

Hertha Ayrton

Alexander Diaz-Lopez

11 is not a single number, It is a tens number, the other numbers are single numbers

Gertrude Blanch

I feel that this one doesn't belong because of a number in the 10's place instead of the ones place like the others.

Gloria Gilmer

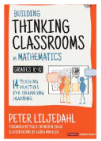
This one has 4 numbers instead of 3.

Jagadish Chandra Bose

there have 3 number and 1 has 4 numbers

What We Teach

Curriculum → EUREKA MATH®



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← Instruction

How We Teach

desmos

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Mission Statement

We shall provide all children with an education that develops open-minded thinkers with the strong academic and interpersonal skills to thrive in an ever-changing world and make it a better place for all.