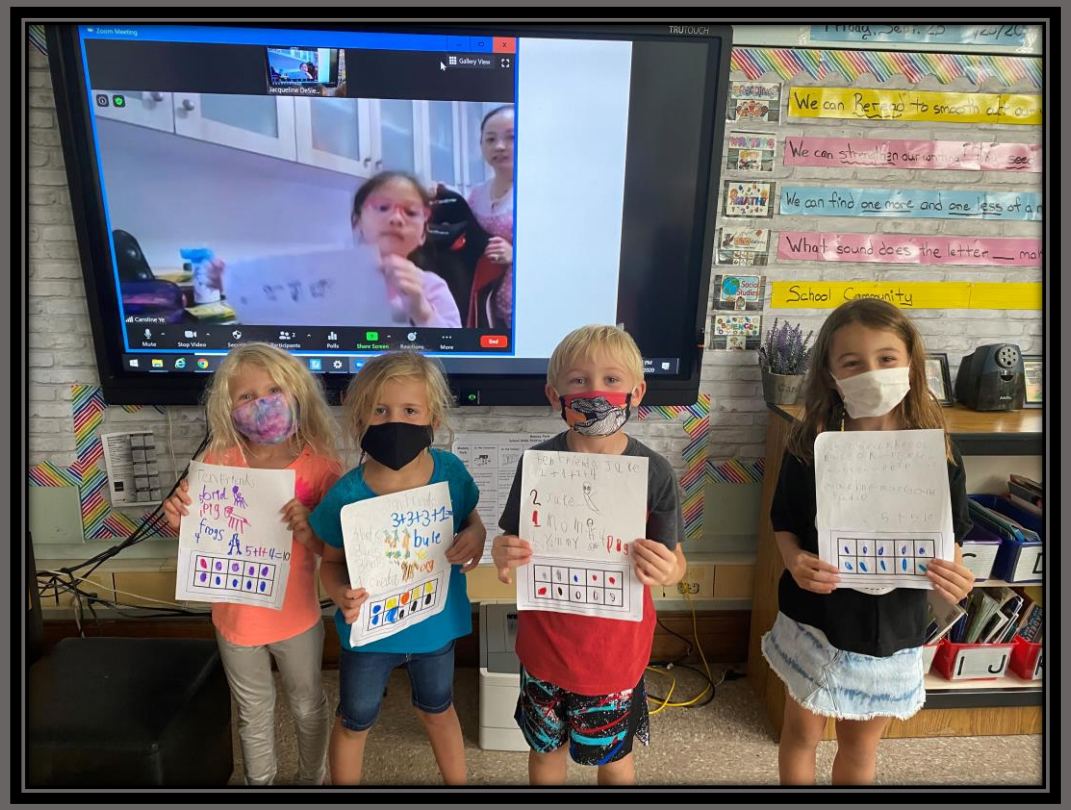
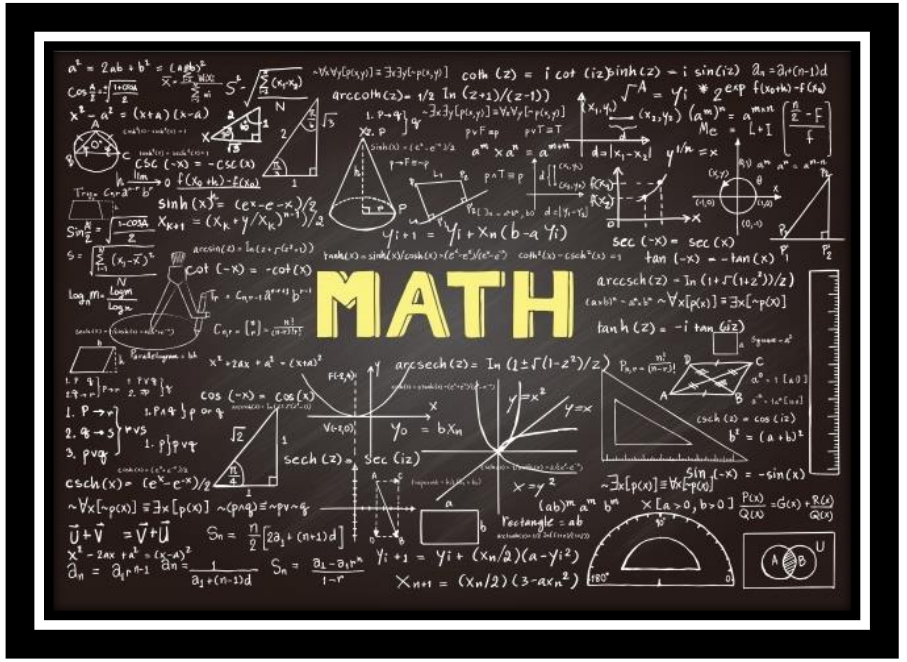


Elementary Math Program Update

Lauren Tallarine, District Coordinator of Mathematics

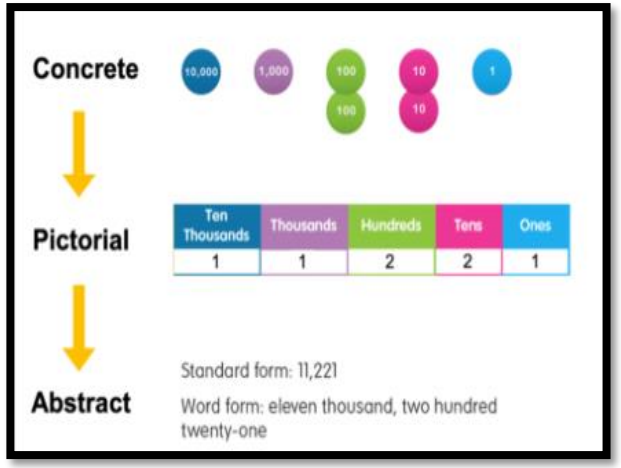
Overview

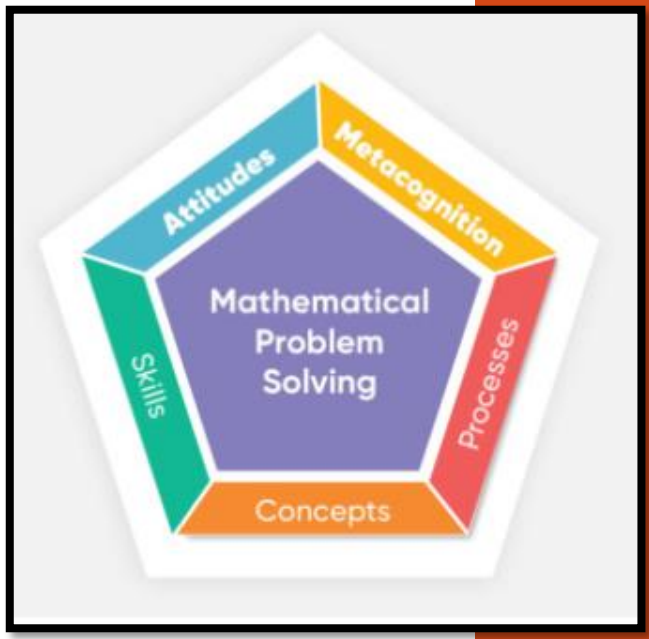
- What does success look like?
- How are we doing?
- Where are we going?



What does success look like?

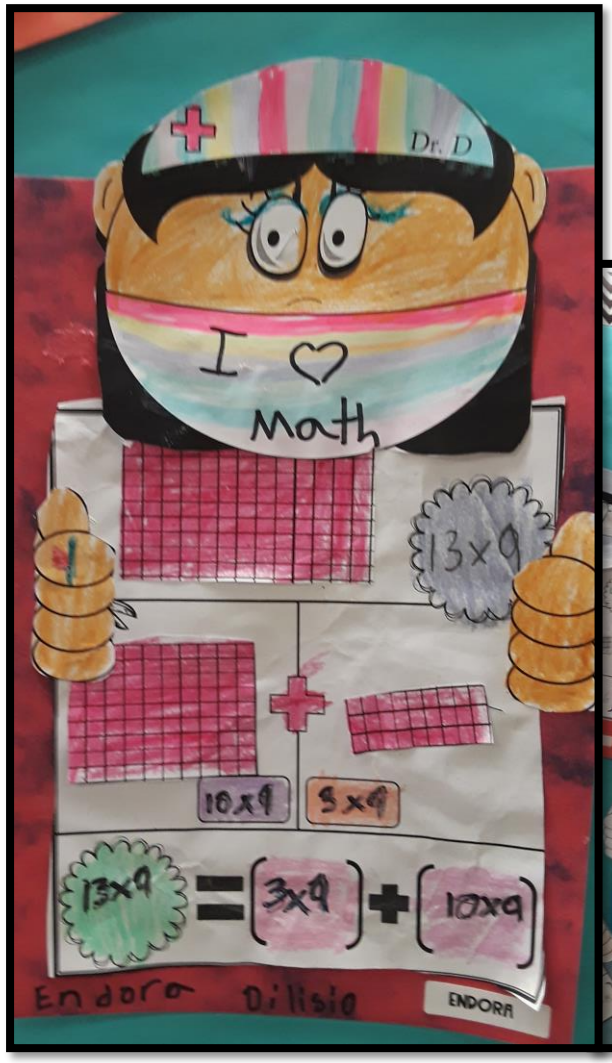
- Embedded problem solving
- Balanced understanding of the why and the how
- Number sense

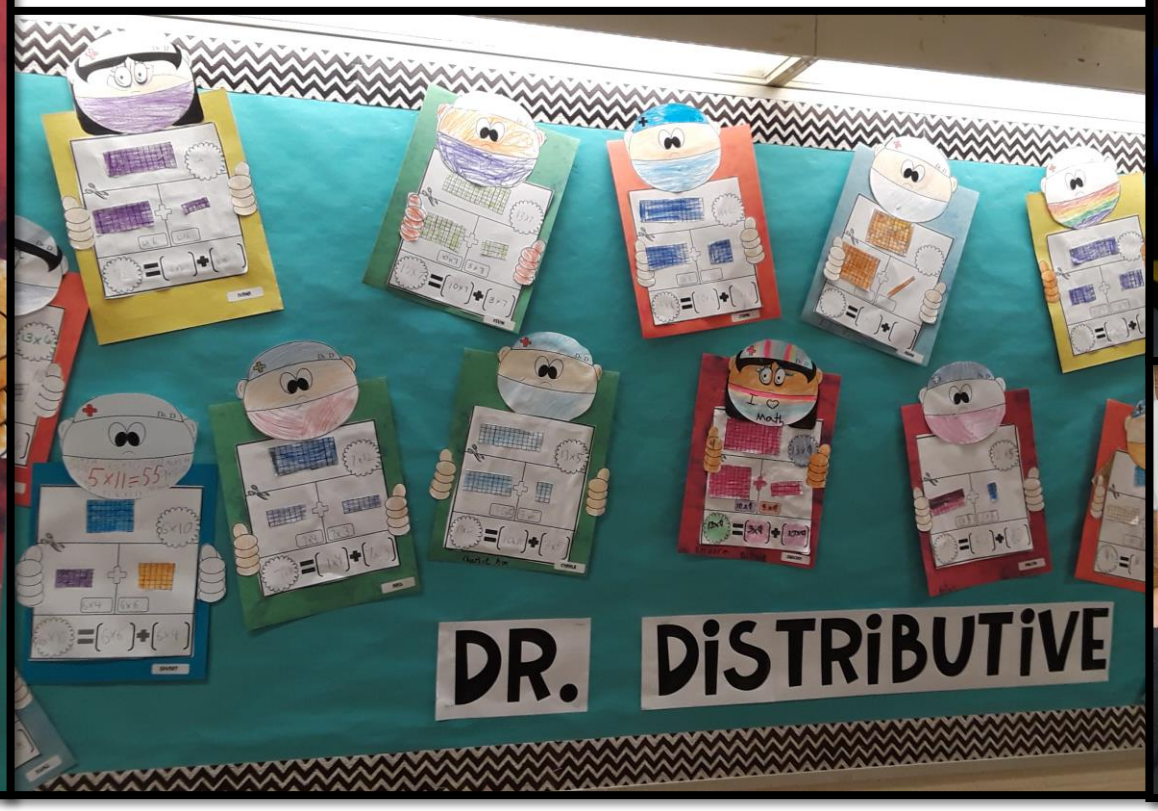


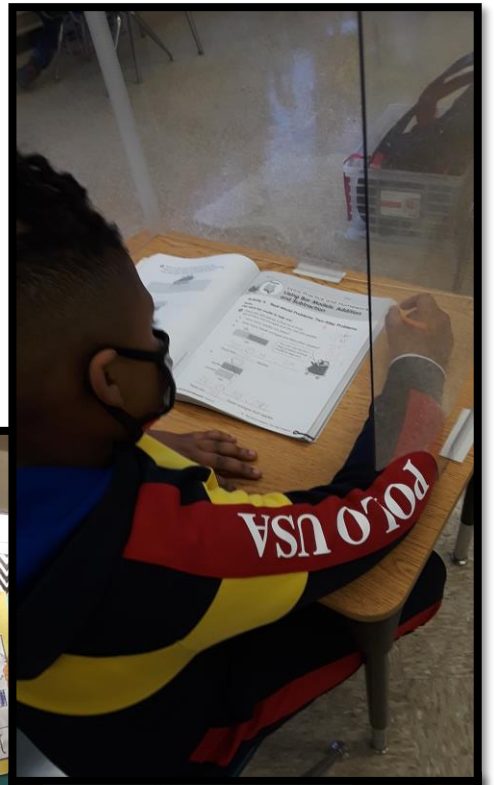


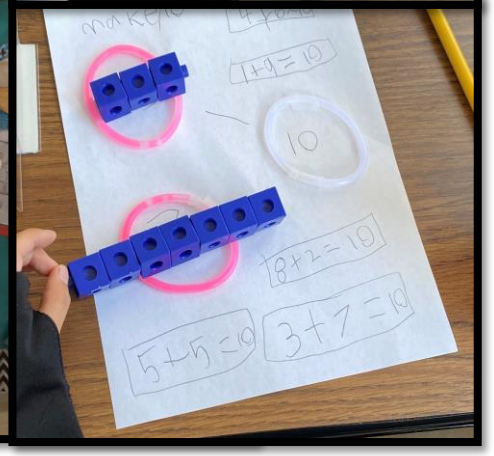
Balanced understanding of the why and the how

NUMBER SENSE

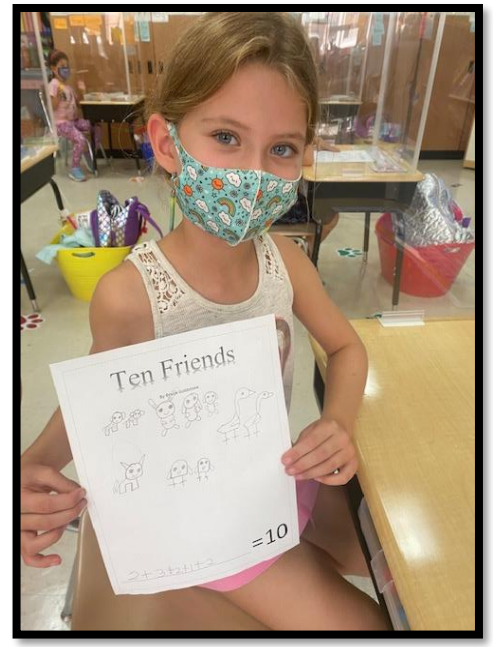


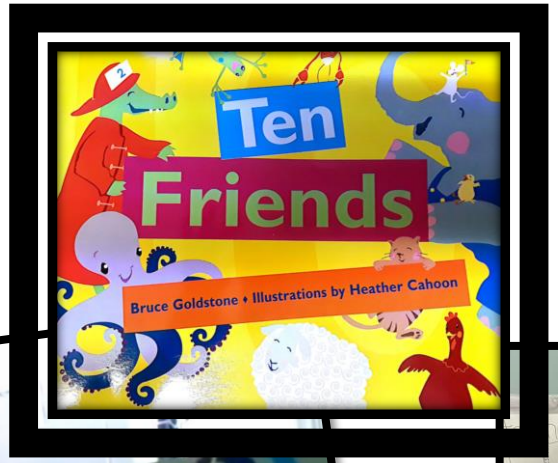


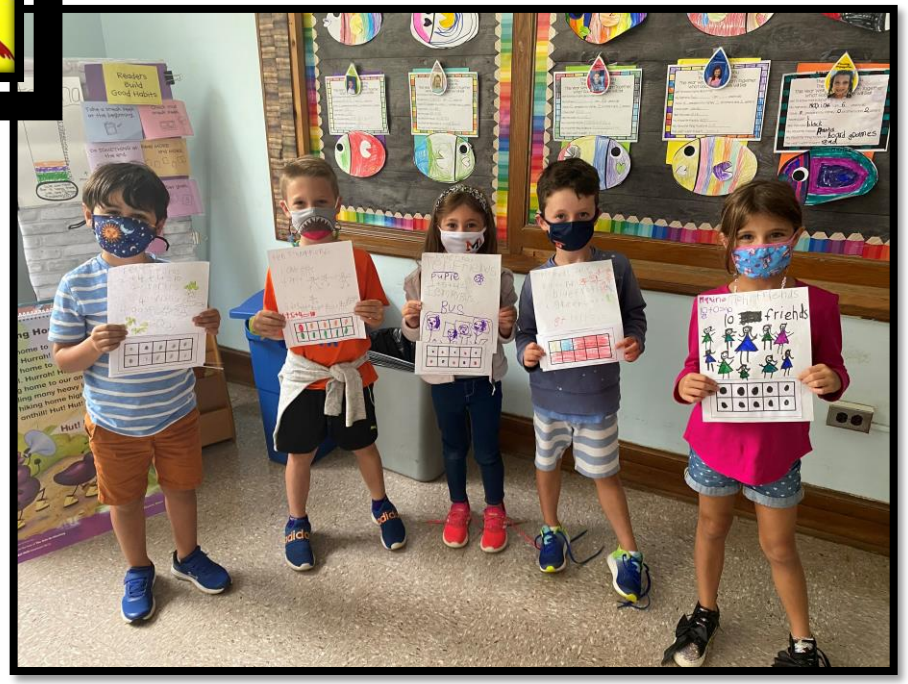




Early Number Sense







How are we doing?

- NWEA Data
- Internal Data

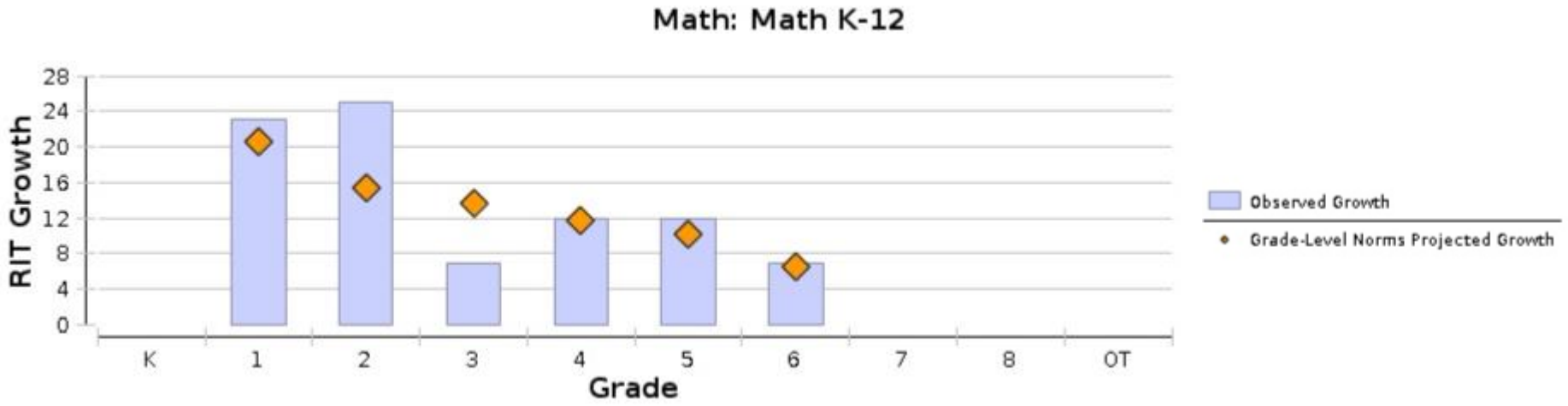
NWEA National Data

Nationally, NWEA observed a 5 – 10 percentile point decline in mathematics, compared to the same grade level, last year.

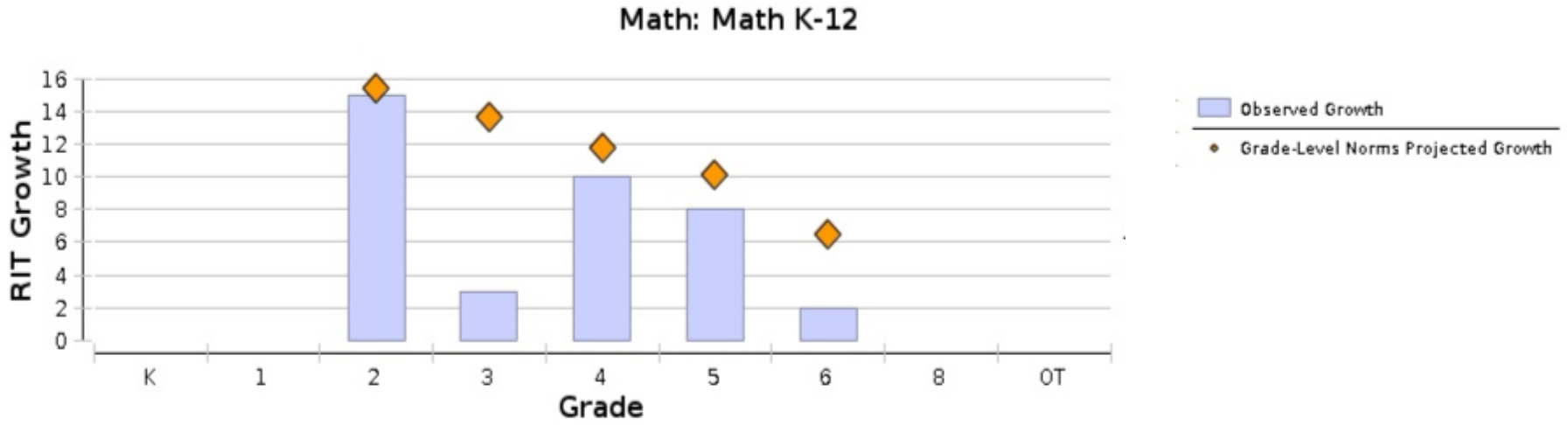
This national COVID slide was not as severe in reading.

Manhasset's NWEA Growth Data

- **Fall 2019 Growth Measure Summary**



- **Fall 2020 Growth Measure Summary**



Manhasset's NWEA Achievement Data

Math: Math K-12

		Comparison Periods					
		Fall 2019			Fall 2020		
Grade (Fall 2020)	Growth Count‡	Mean RIT	SD	Percentile	Mean RIT	SD	Percentile
K	0	**			**		
1	0	**			**		
2	202	169.7	14.8	95	184.6	11.1	95
3	213	192.6	15.2	99	195.4	11.9	88
4	222	197.1	13.3	93	206.8	15.1	86
5	217	206.8	12.6	86	214.8	15.1	78
6	253	220.0	13.2	93	222.5	15.3	84
8	0	**			**		
OT	2	*			*		

Internal Data

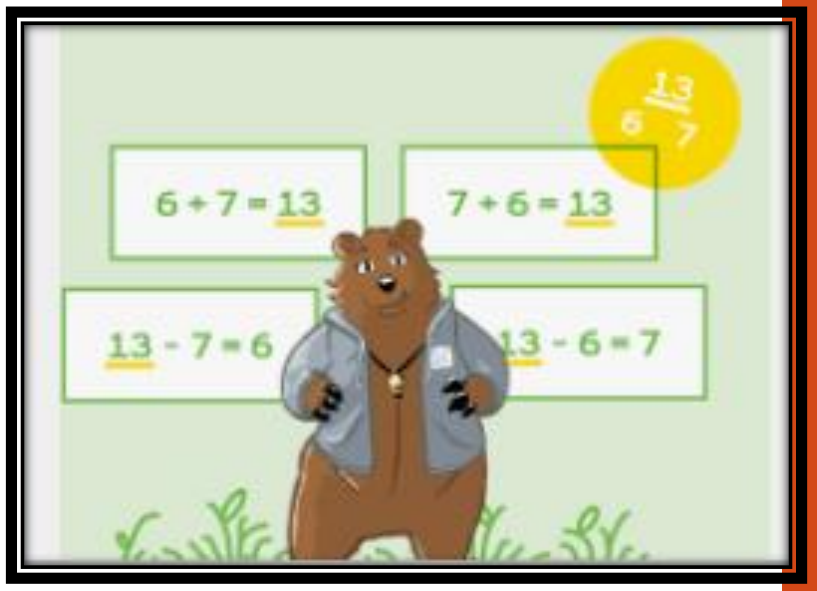
- A comparison of grades K – 3 classroom assessments from Fall 2019 and Fall 2020 revealed similar results in both years
- Grade 2 – 6 teachers reported some concerns about math fact fluency

Responding to the Data

- Reflex Math
- Various Math in Focus Supports
- Math Specialists
- Summer Tier 3 Support Program
- Grade 5 Math Class Structure

Reflex Math Fluency Program

- Uses a fact family approach
- Incorporates real-time coaching
- Built-in incentives



We ♥ Reflex Math!

Reflex Math Data

Grades 2 – 5 students solved more than 2.25 MILLION math facts since October!

Reflex Math Data

October 2020

Starting Fluency

Percent of Facts Fluent	Number of Students
Still Assessing	(39.3%) 395
0 - 49%	(51.4%) 517
50 - 79%	(8.9%) 89
80 - 94%	(0.4%) 4
95 - 100%	(0.0%) 0

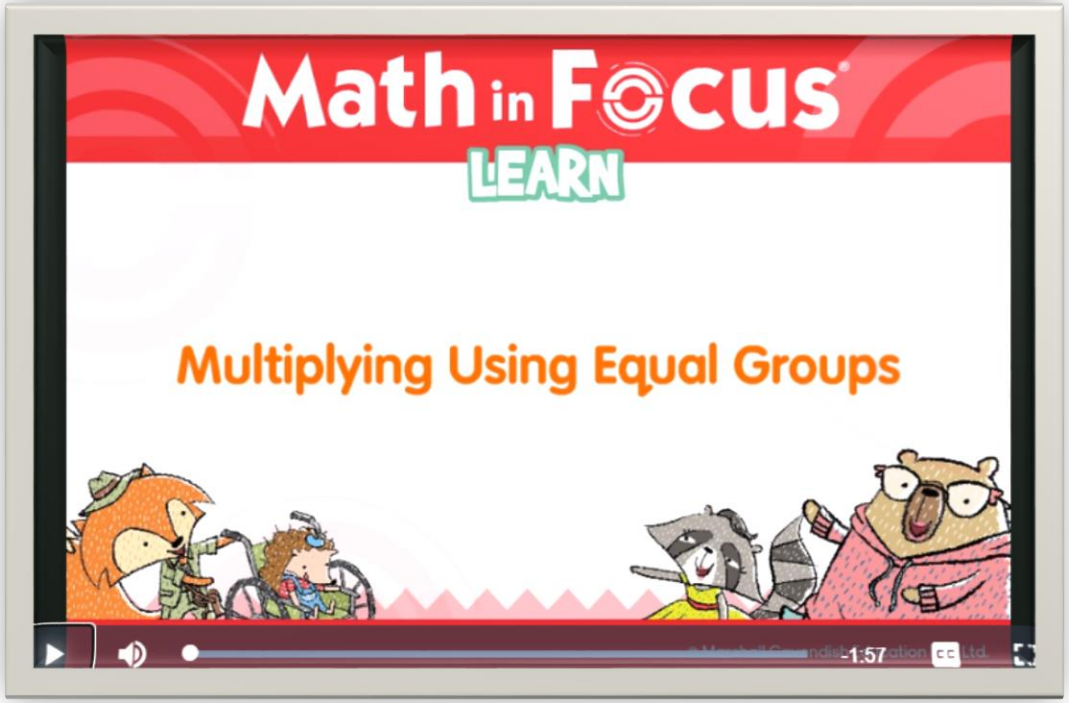
January 2021

Current Fluency

Percent of Facts Fluent	Number of Students
Still Assessing	(39.3%) 395
0 - 49%	(17.5%) 176
50 - 79%	(22.3%) 224
80 - 94%	(8.7%) 87
95 - 100%	(12.2%) 123

Math in Focus:
Upgraded digital platform, Ed – Your Friend in Learning

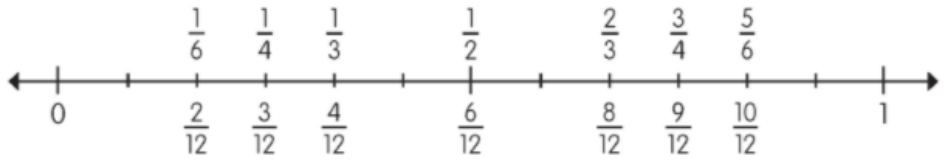
- Online student edition
- Learn Videos
- Text can be read aloud



Math in Focus: Prior Knowledge Check-in

RECALL PRIOR KNOWLEDGE

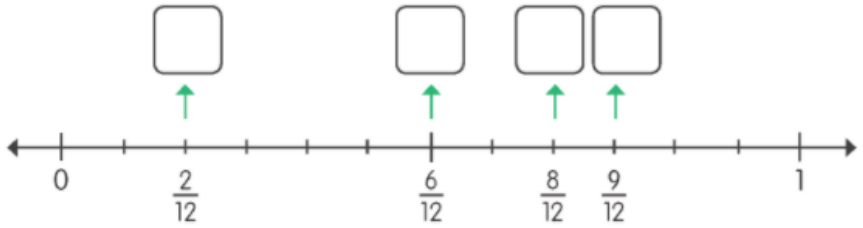
Representing fractions on a number line



Quick Check

Fill in each blank with the correct equivalent fraction. Give your answer in simplest form.

9



Quick Check

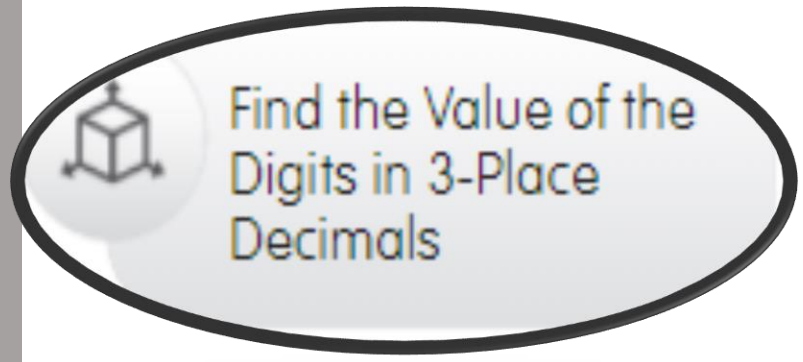
Express the improper fraction as a mixed number.

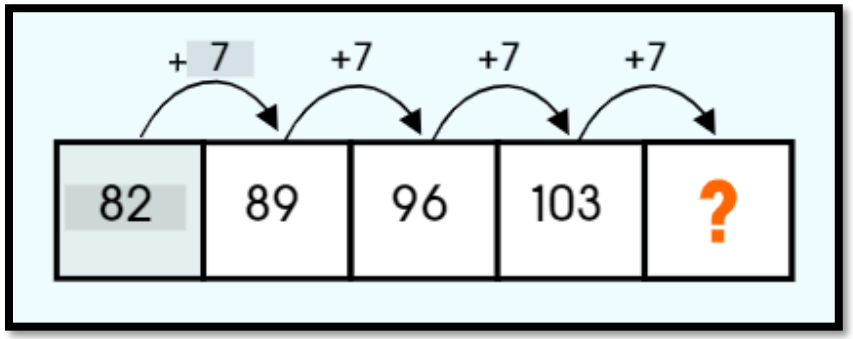
11

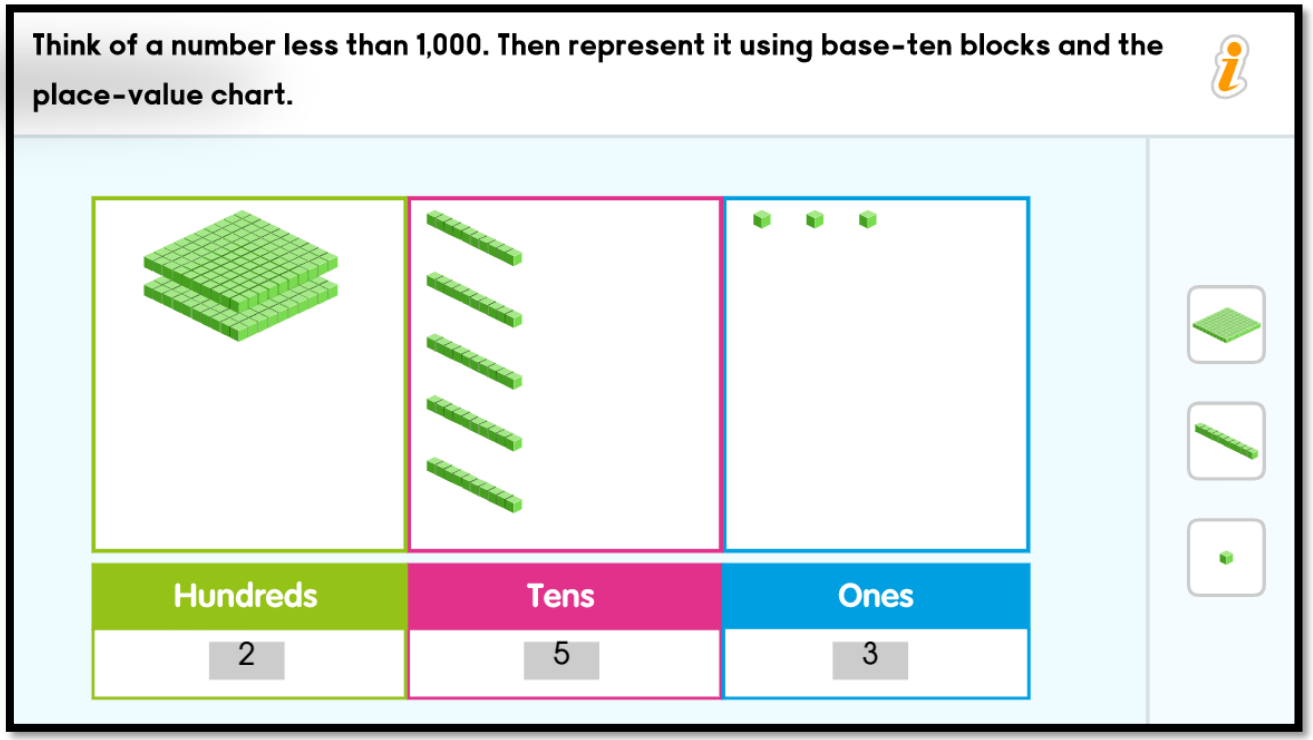
$\frac{8}{3}$ = _____ thirds

= _____ thirds + _____ thirds

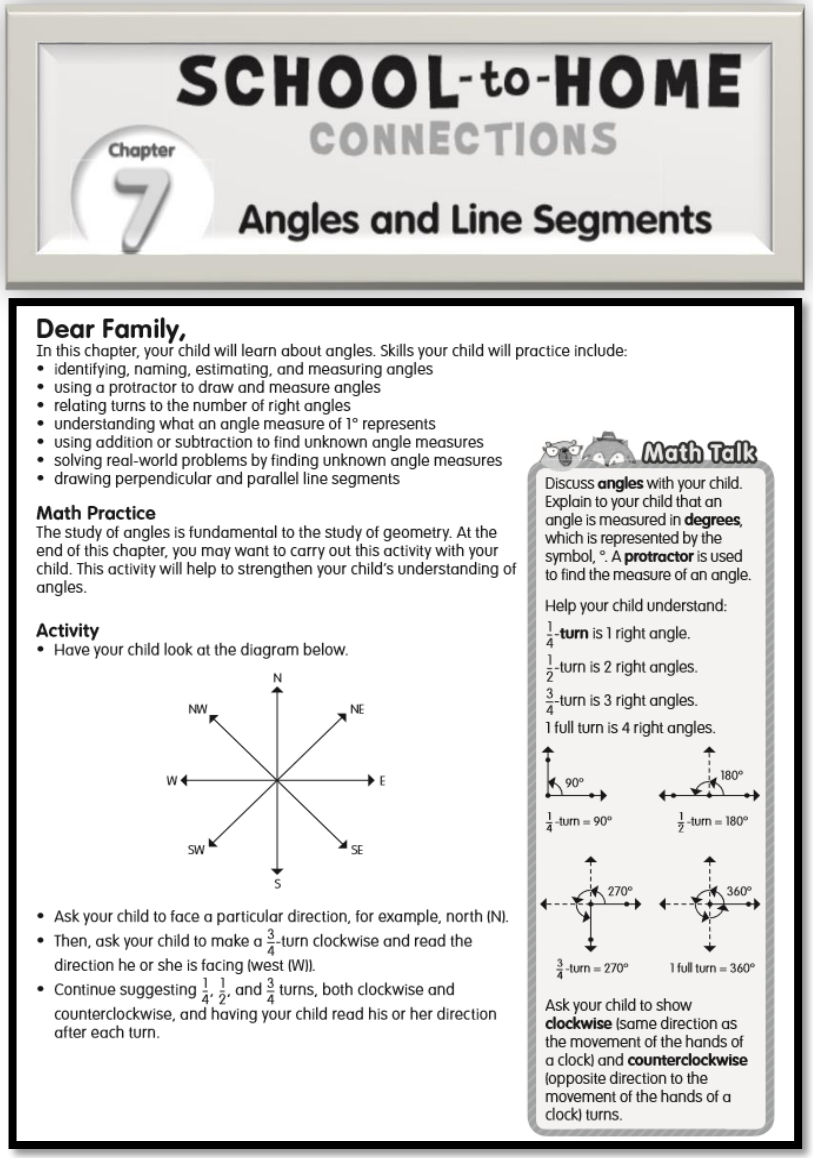
Math in Focus: Virtual Manipulatives







Math in Focus: School-to-Home Connections/Resources



SCHOOL-to-HOME CONNECTIONS

Chapter 7

Angles and Line Segments

Dear Family,

In this chapter, your child will learn about angles. Skills your child will practice include:

- identifying, naming, estimating, and measuring angles
- using a protractor to draw and measure angles
- relating turns to the number of right angles
- understanding what an angle measure of 1° represents
- using addition or subtraction to find unknown angle measures
- solving real-world problems by finding unknown angle measures
- drawing perpendicular and parallel line segments

Math Practice

The study of angles is fundamental to the study of geometry. At the end of this chapter, you may want to carry out this activity with your child. This activity will help to strengthen your child's understanding of angles.

Activity

- Have your child look at the diagram below.

- Ask your child to face a particular direction, for example, north (N).
- Then, ask your child to make a $\frac{3}{4}$-turn clockwise and read the direction he or she is facing (west (W)).
- Continue suggesting $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ turns, both clockwise and counterclockwise, and having your child read his or her direction after each turn.

Math Talk

Discuss **angles** with your child. Explain to your child that an angle is measured in **degrees**, which is represented by the symbol, °. A **protractor** is used to find the measure of an angle.

Help your child understand:

$\frac{1}{4}$-**turn** is 1 right angle.

$\frac{1}{2}$-turn is 2 right angles.

$\frac{3}{4}$-turn is 3 right angles.

1 full turn is 4 right angles.

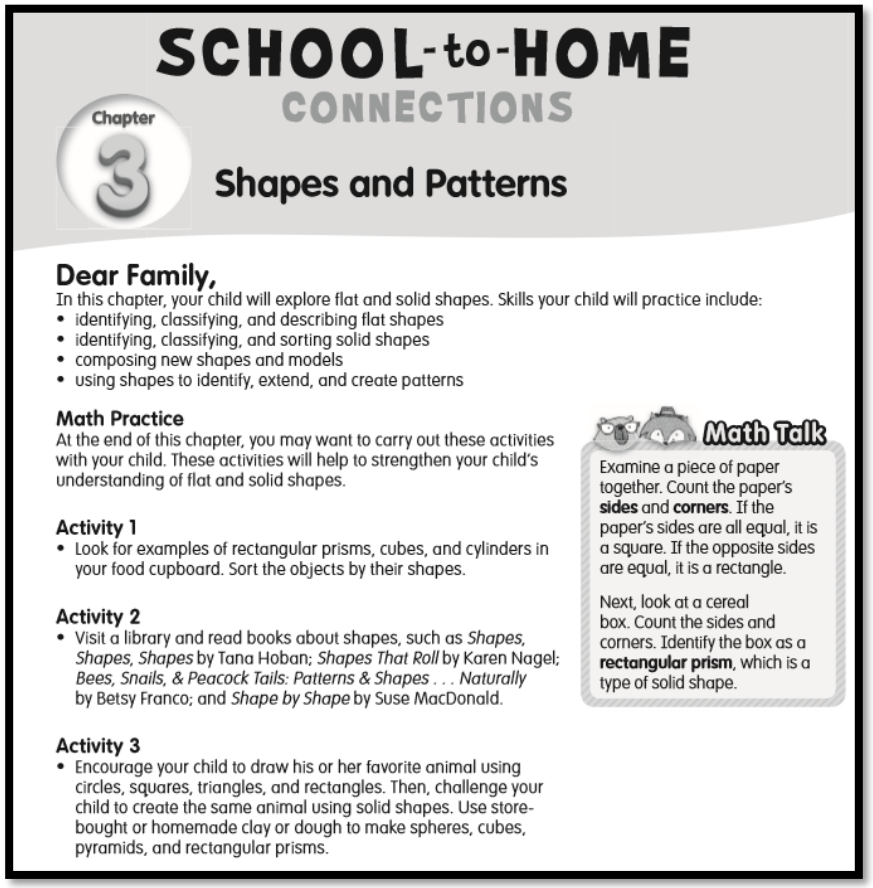
$\frac{1}{4}$-turn = 90°

$\frac{1}{2}$-turn = 180°

$\frac{3}{4}$-turn = 270°

1 full turn = 360°

Ask your child to show **clockwise** (same direction as the movement of the hands of a clock) and **counterclockwise** (opposite direction to the movement of the hands of a clock) turns.



SCHOOL-to-HOME CONNECTIONS

Chapter 3

Shapes and Patterns

Dear Family,

In this chapter, your child will explore flat and solid shapes. Skills your child will practice include:

- identifying, classifying, and describing flat shapes
- identifying, classifying, and sorting solid shapes
- composing new shapes and models
- using shapes to identify, extend, and create patterns

Math Practice

At the end of this chapter, you may want to carry out these activities with your child. These activities will help to strengthen your child's understanding of flat and solid shapes.

Activity 1

- Look for examples of rectangular prisms, cubes, and cylinders in your food cupboard. Sort the objects by their shapes.

Activity 2

- Visit a library and read books about shapes, such as *Shapes, Shapes, Shapes* by Tana Hoban; *Shapes That Roll* by Karen Nagel; *Bees, Snails, & Peacock Tails: Patterns & Shapes . . . Naturally* by Betsy Franco; and *Shape by Shape* by Suse MacDonald.

Activity 3

- Encourage your child to draw his or her favorite animal using circles, squares, triangles, and rectangles. Then, challenge your child to create the same animal using solid shapes. Use store-bought or homemade clay or dough to make spheres, cubes, pyramids, and rectangular prisms.

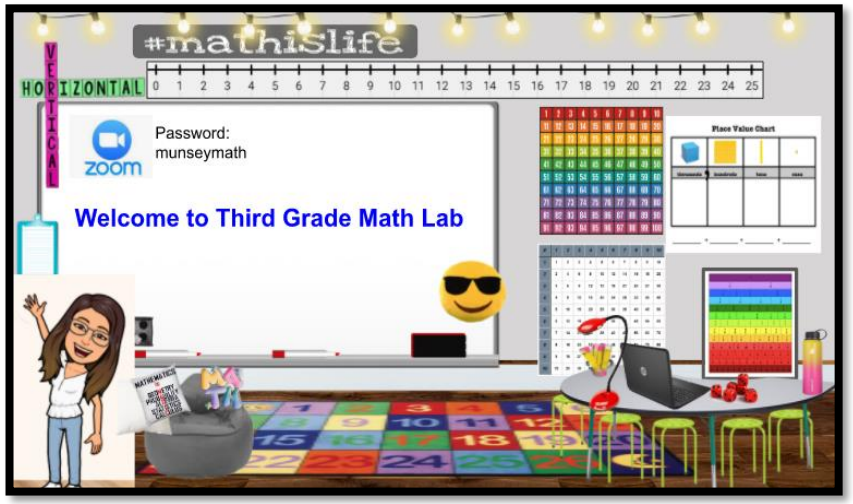
Math Talk

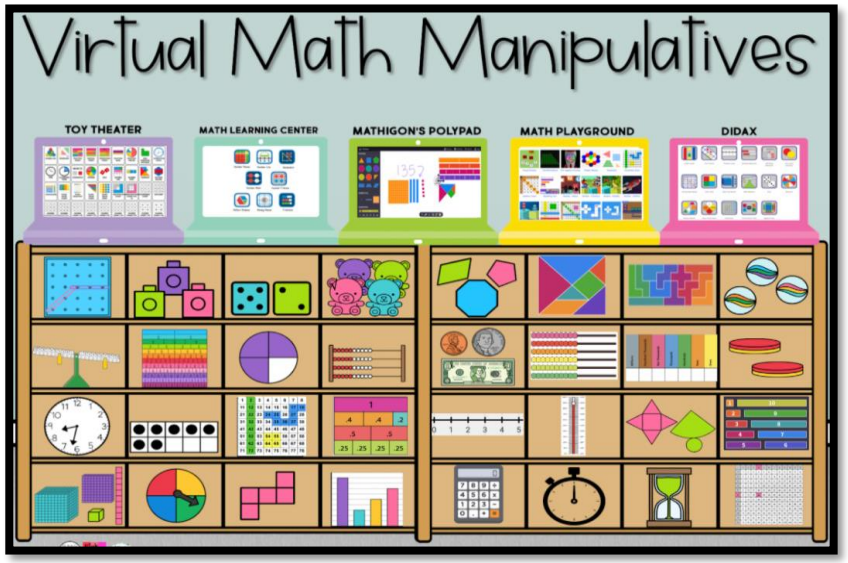
Examine a piece of paper together. Count the paper's **sides** and **corners**. If the paper's sides are all equal, it is a square. If the opposite sides are equal, it is a rectangle.

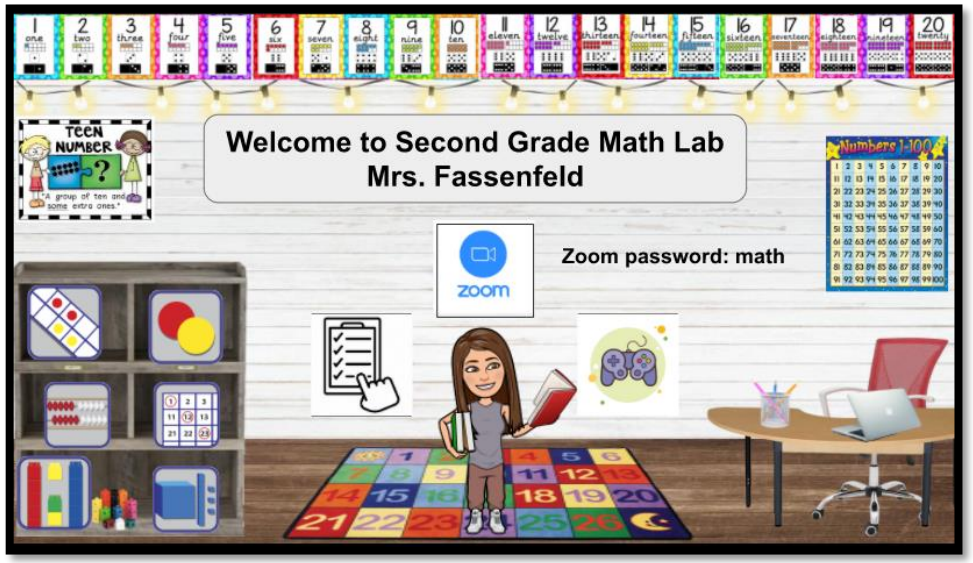
Next, look at a cereal box. Count the sides and corners. Identify the box as a **rectangular prism**, which is a type of solid shape.

Parent Resources

Elementary Math Specialists







Munsey Park

Mrs. Scognamiglio Ms. Yang

Shelter Rock

Mrs. Fassenfeld Mrs. Papadopoulos

NWEA Results for our 16 Summer Tier 3 Participants

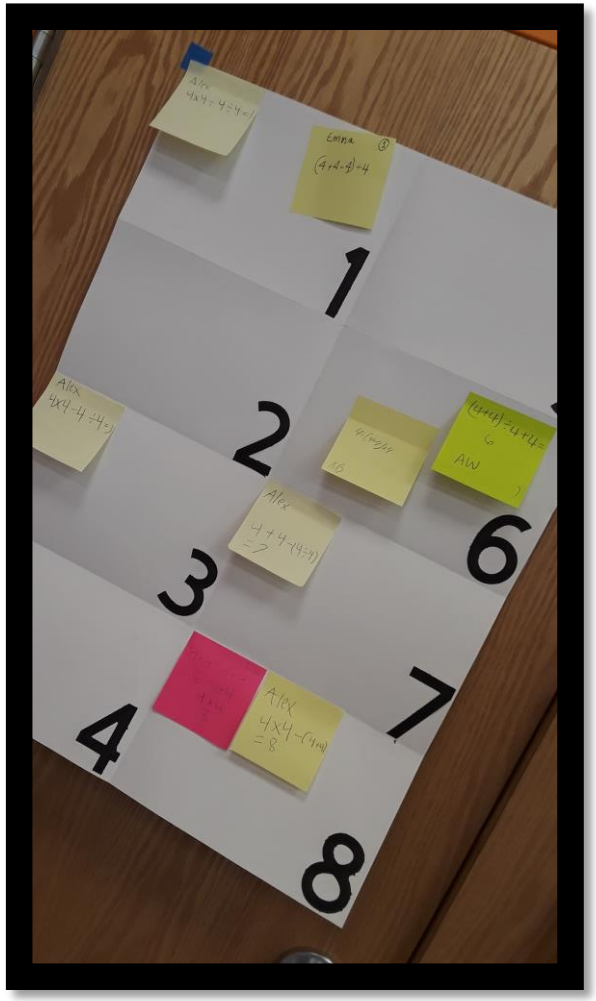
- Average growth at the 52.40th percentile
- Average achievement at the 25th percentile
- Average gain of 8.75 RIT score units

Grade 5 Classroom Enrichment

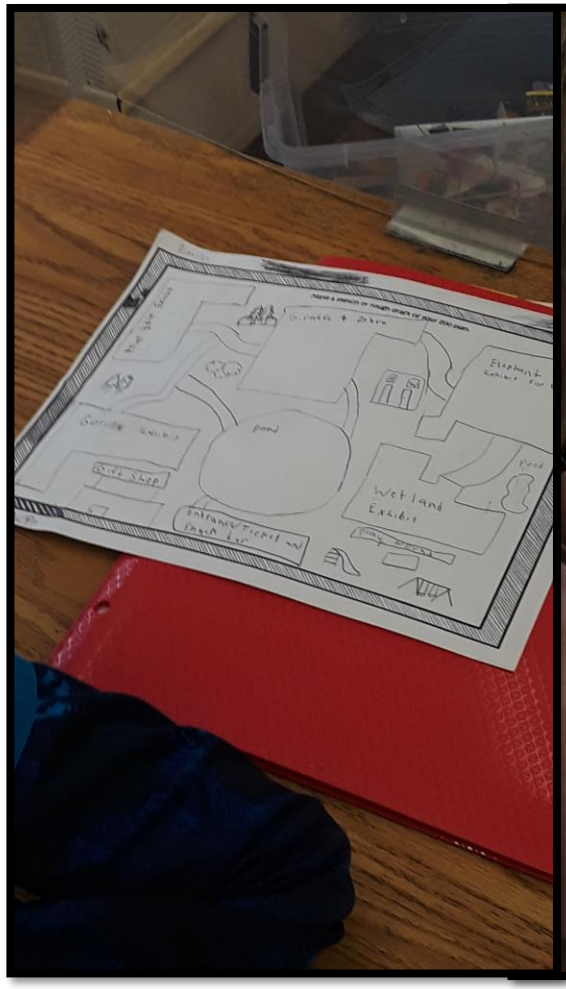
Four 4's

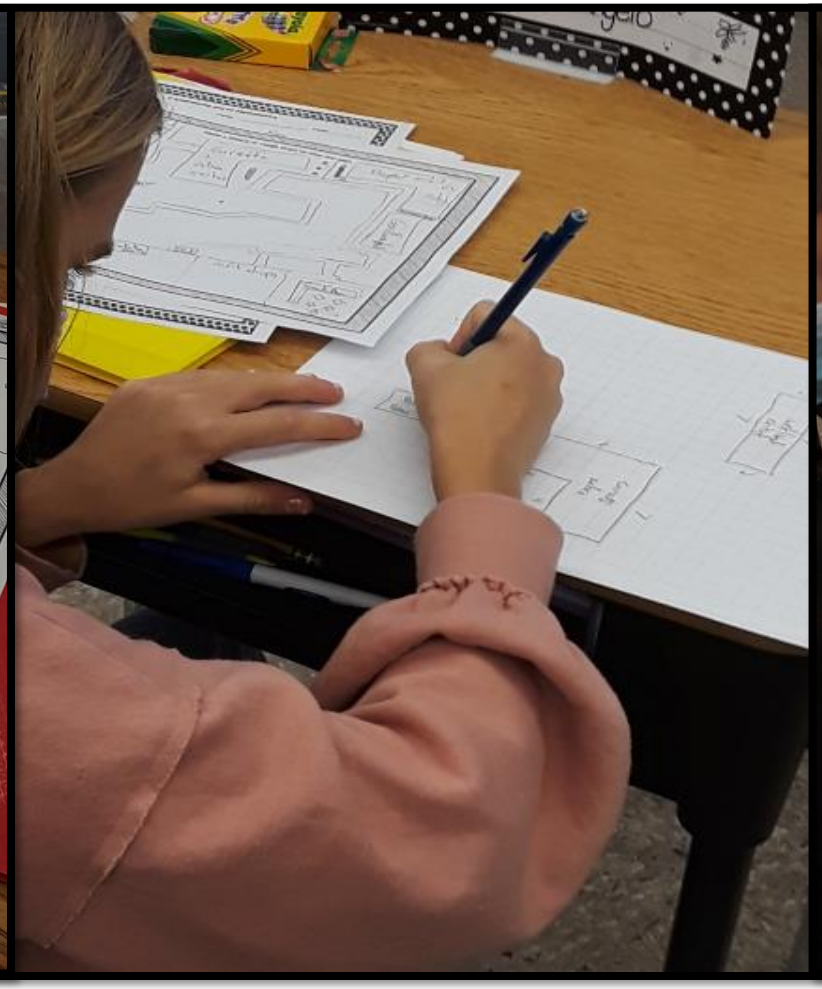
$4 + 4 + 4 + 4 = 16$

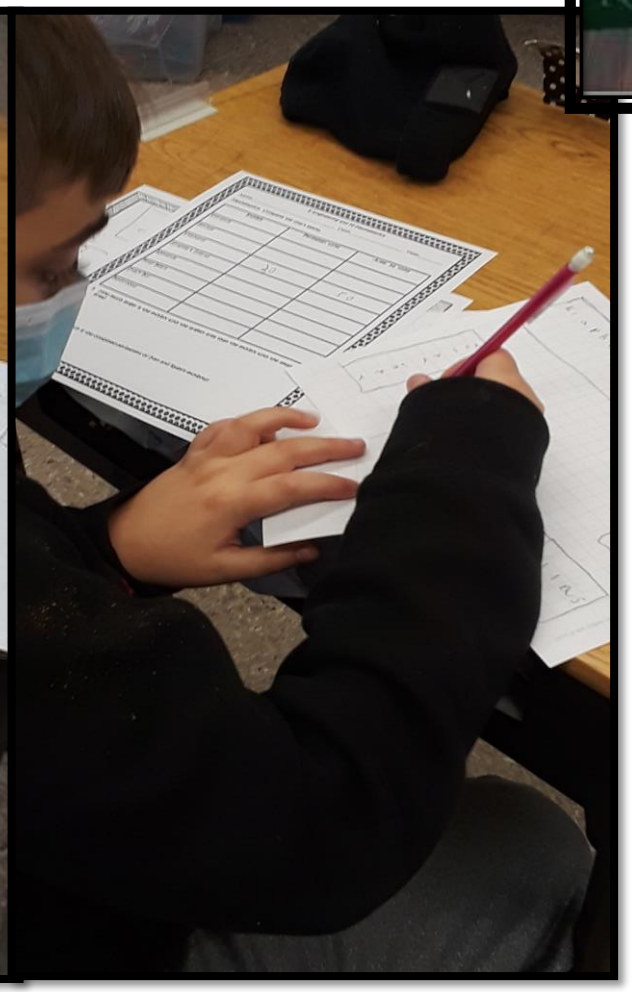
$[(4 \times 4) - 4] \div 4 = 3$



Grade 5 Classroom Enrichment: Math-ELA Connections







Where are we going?

- Continue to identify and respond to learning gaps
- Provide opportunities for interdisciplinary work
- Consideration of Grade 6 transition to the Math in Focus 2020 edition
- Late Winter Pilot of IXL for ELA & Math in Grade 6
- Incorporated IXL subscription into the Summer 2021 planning for grades K - 6
- Discuss the addition of a 1.0 Shared Math Specialist
- Continued & ongoing teacher training for new text edition
- Implementation of new identification process for Grade 6 double accelerated math

Thank you for attending!

Please reach out with your questions:

Lauren_Tallarine@manhassetschools.org