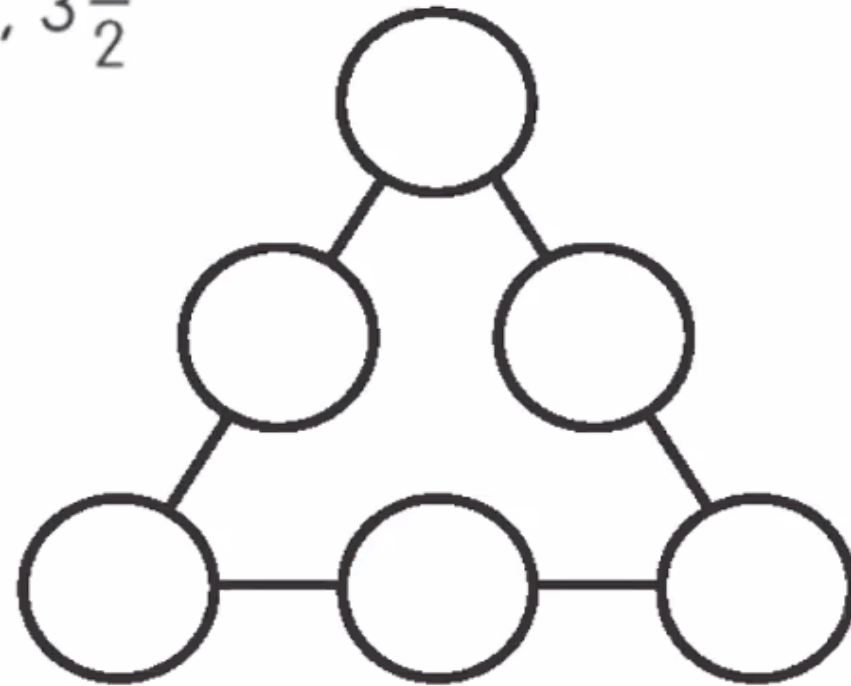
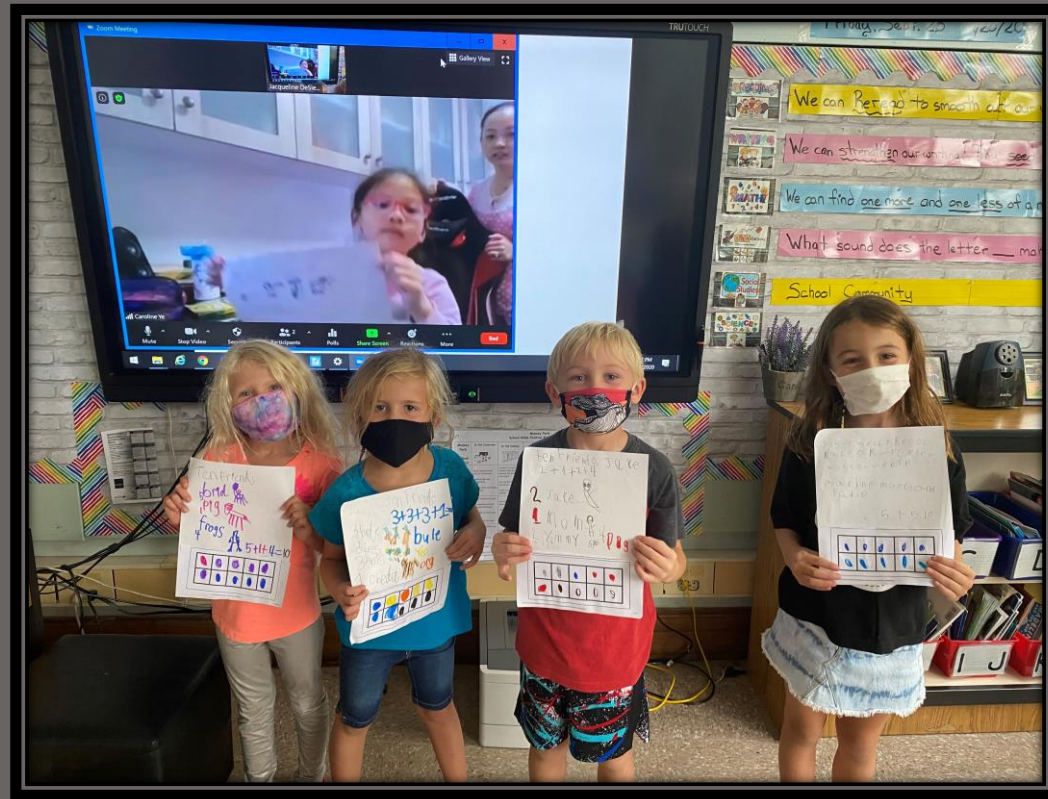


# While You Wait...

Using each value only once, try to arrange them so that each side of the triangle has a sum of 6.

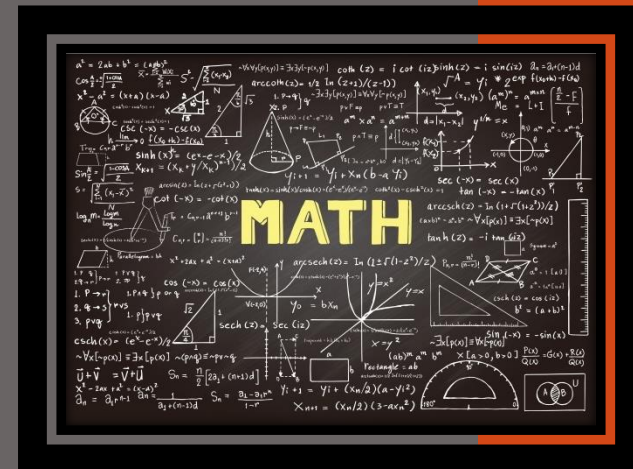
$1, 1\frac{1}{2}, 2, 2\frac{1}{2}, 3, 3\frac{1}{2}$





# Elementary Math Program Update

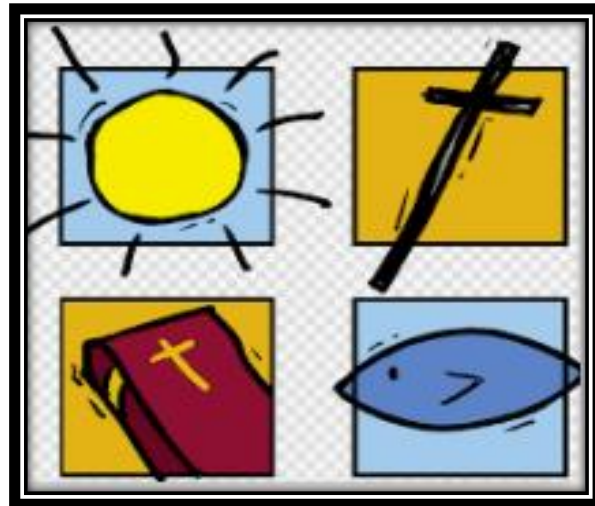
Lauren Tallarine, District Coordinator of Mathematics



# Today's Program

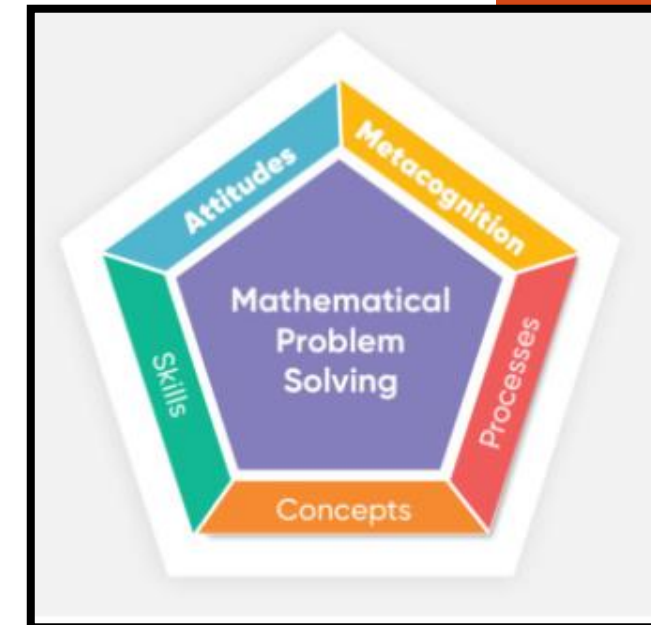
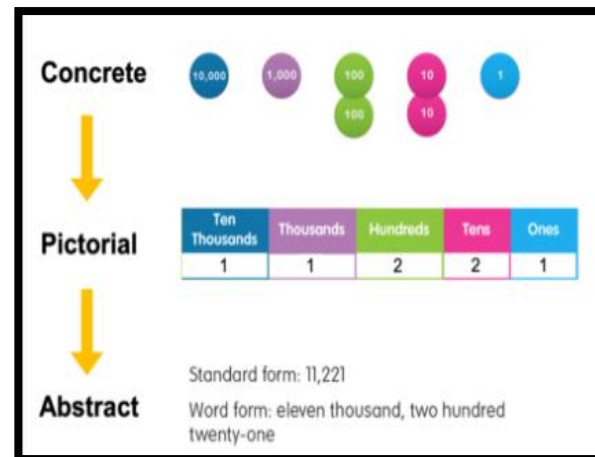
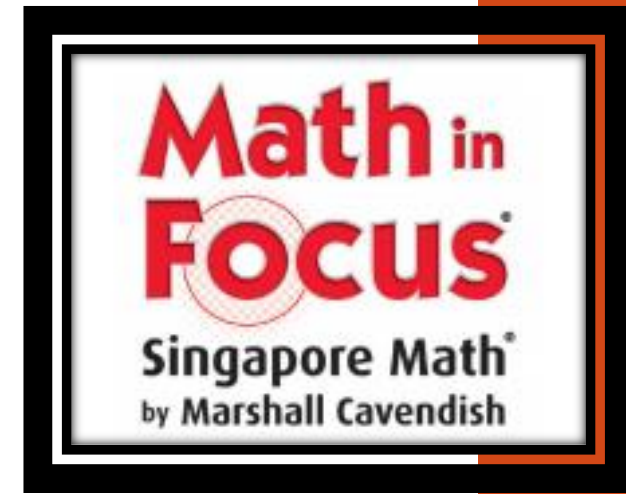
- Welcome/Introduction
- What does success look like in math?
- Responding to the Data/This year's focus
- Math Pathways

# Introduction



# 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

Dr. D

I ♥ Math

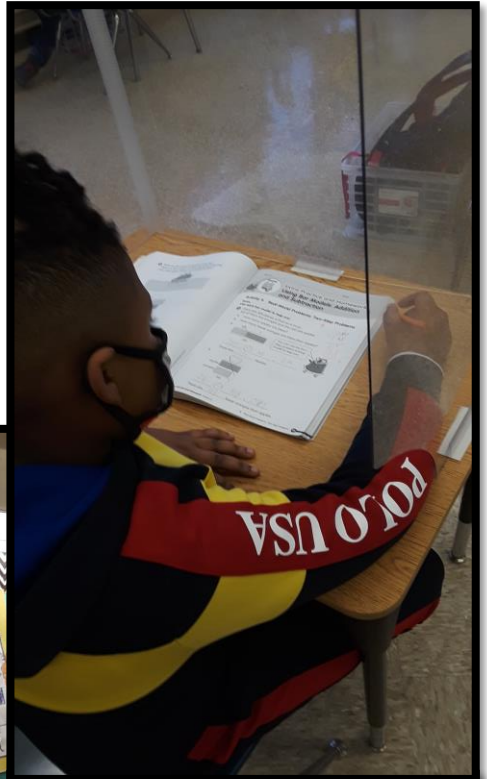
$13 \times 9$

$10 \times 9$   $3 \times 9$

$13 \times 9 = (3 \times 9) + (10 \times 9)$

Endora Dillio

DR. DISTRIBUTIVE



1 + 9 = 10

10

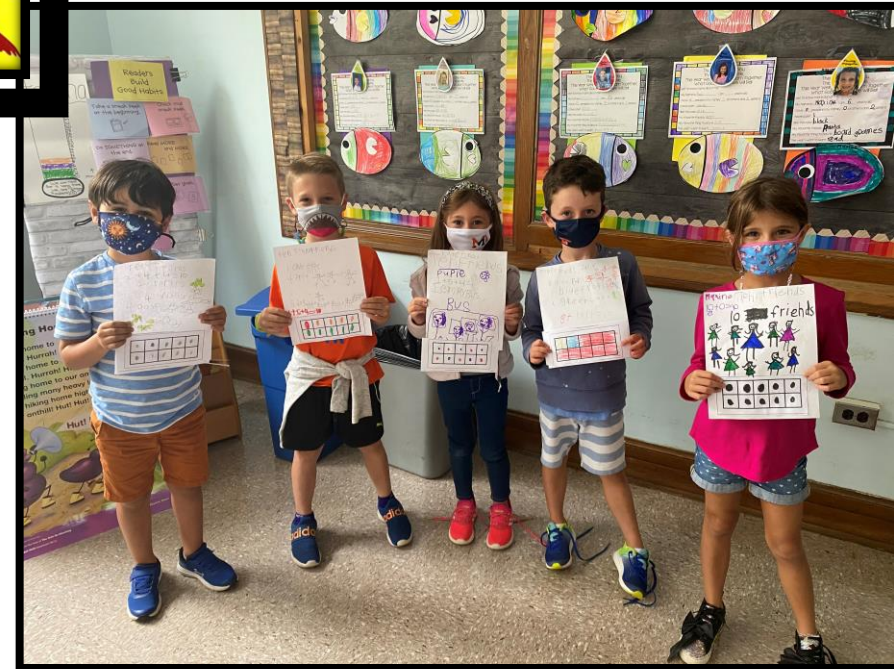
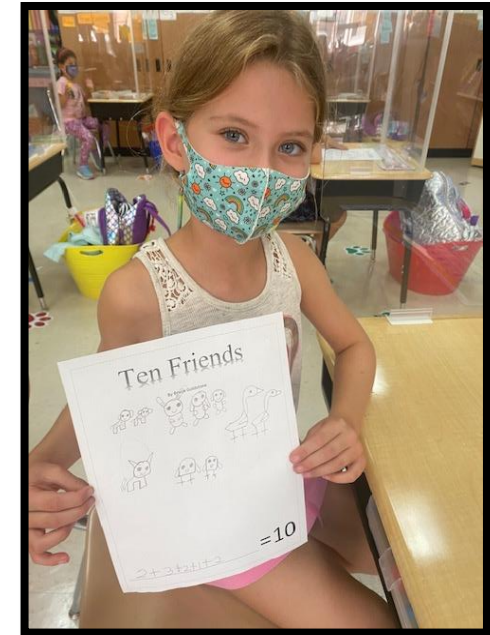
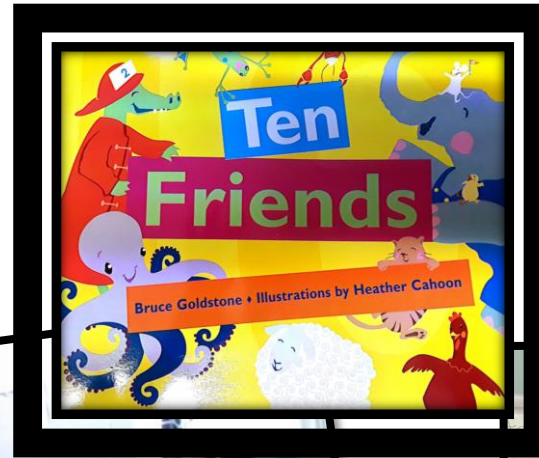
8 + 2 = 10

5 + 5 = 10

3 + 7 = 10



# Early Number Sense





# 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.

# 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!



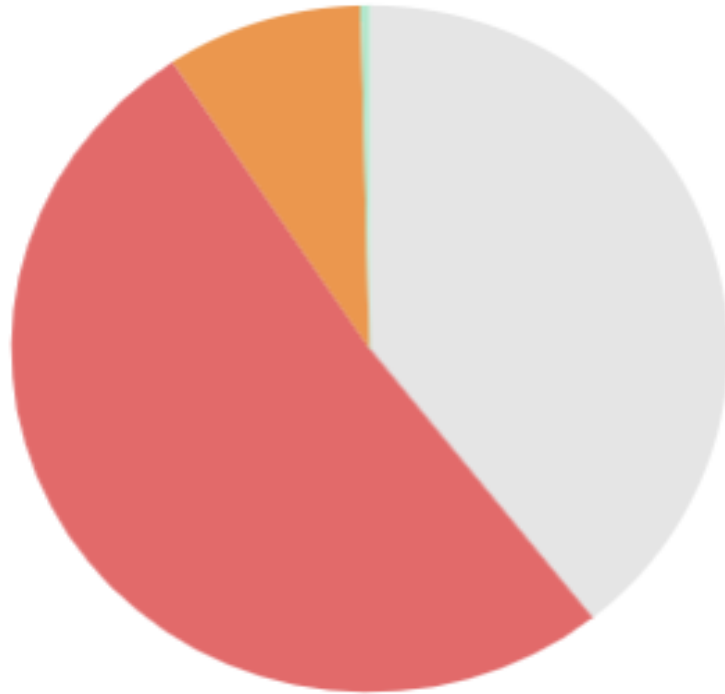
# Reflex Math Data

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

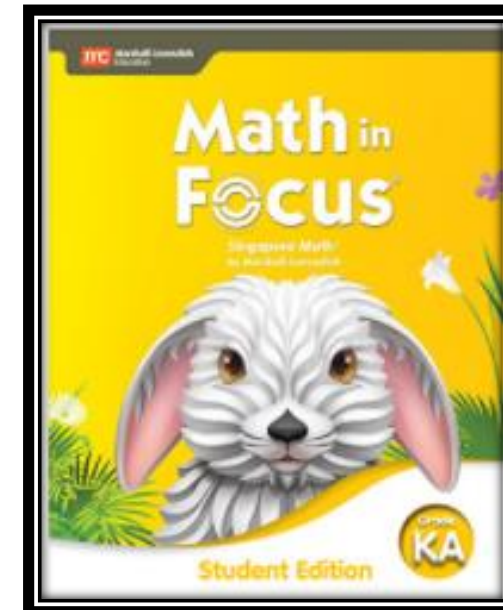
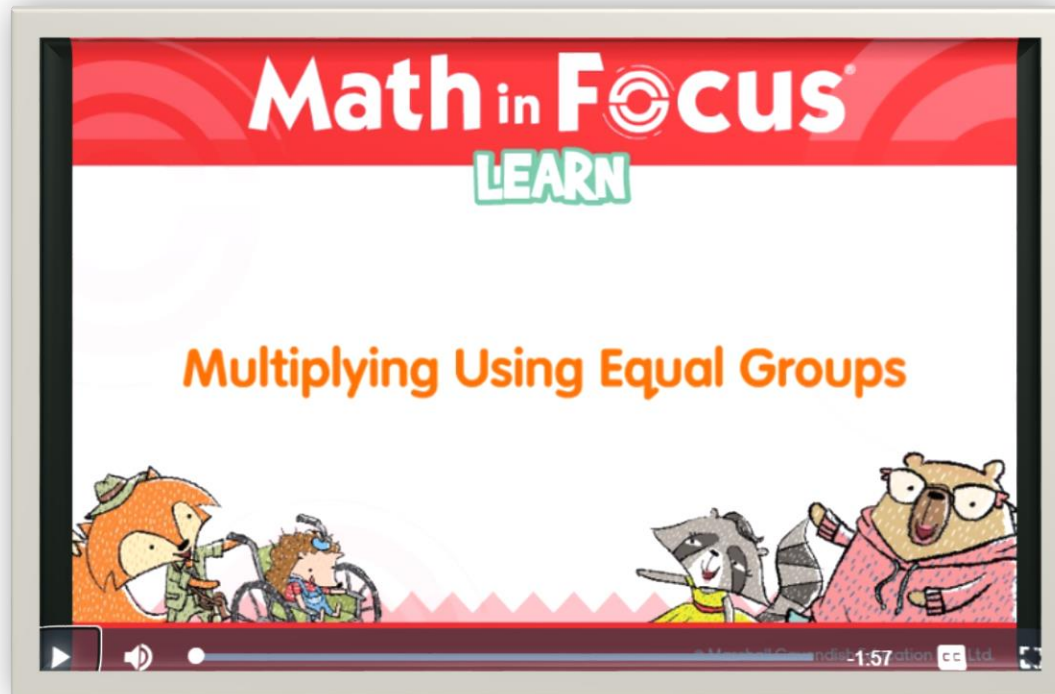
Percent of Facts Fluent	Number of Students
-------------------------	--------------------

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

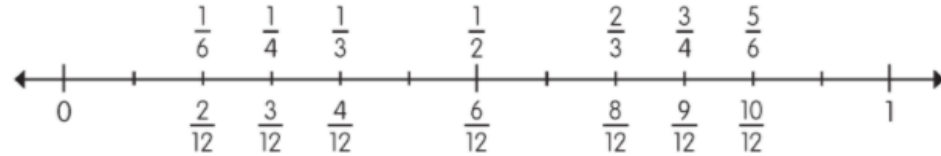
- Online student edition
- Learn Videos
- Text can be read aloud



# Math in Focus: Prior Knowledge Check-in

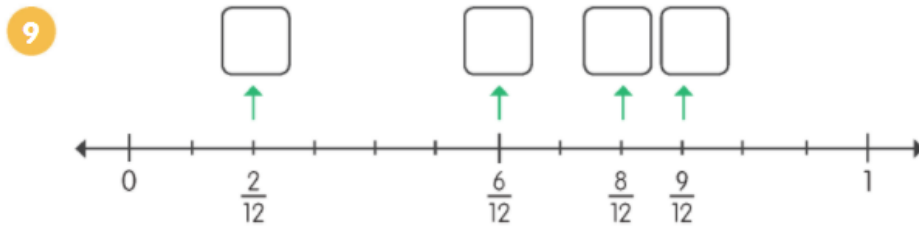
## RECALL PRIOR KNOWLEDGE

### Representing fractions on a number line



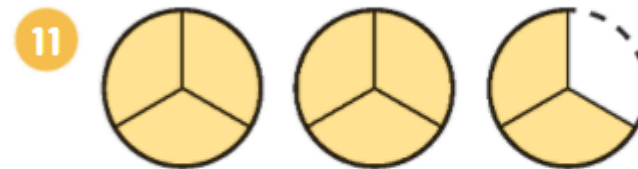
### ► Quick Check

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



### ► Quick Check

Express the improper fraction as a mixed number.



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

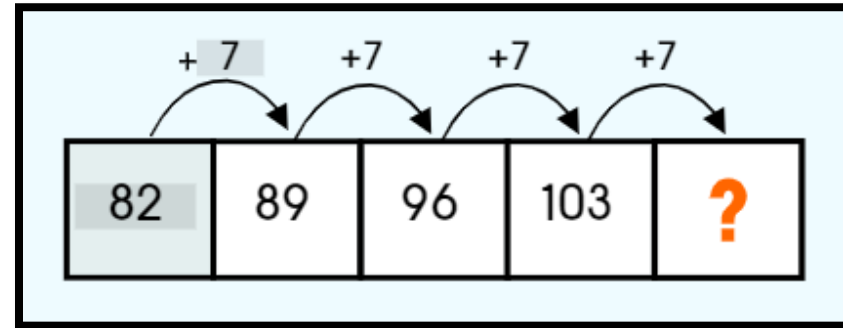
$$= \text{_____ thirds} + \text{_____ thirds}$$



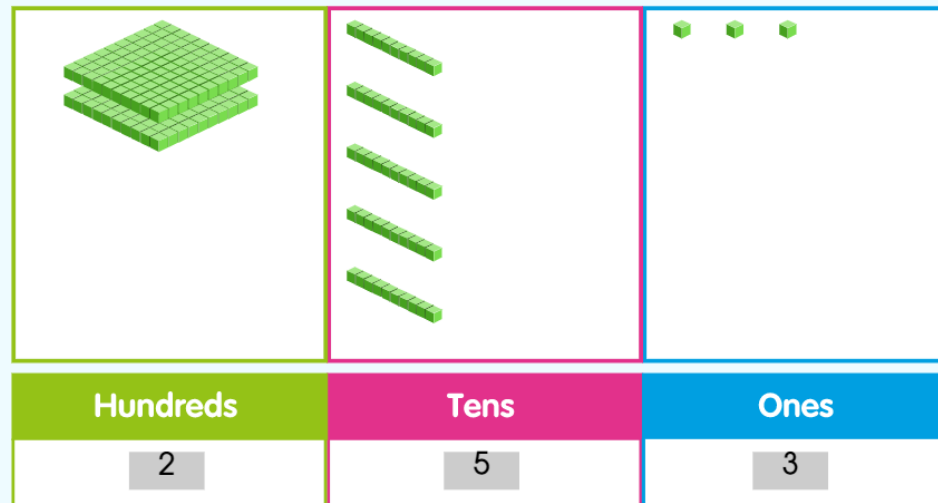
# Math in Focus: Virtual Manipulatives



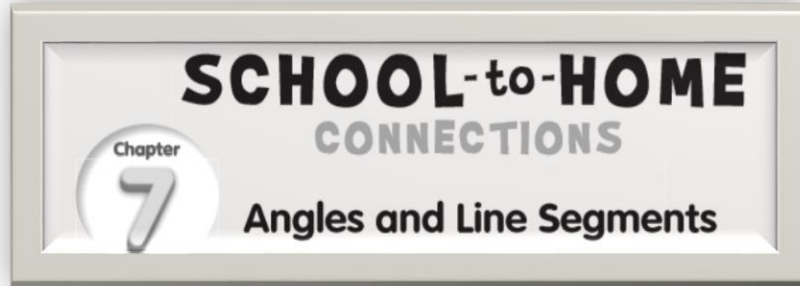
Find the Value of the  
Digits in 3-Place  
Decimals



Think of a number less than 1,000. Then represent it using base-ten blocks and the place-value chart.



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



## Dear Family,

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

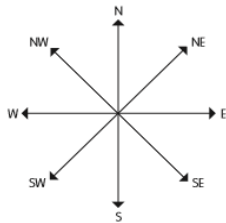
- identifying, naming, estimating, and measuring angles
- using a protractor to draw and measure angles
- relating turns to the number of right angles
- understanding what an angle measure of  $1^\circ$  represents
- using addition or subtraction to find unknown angle measures
- solving real-world problems 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.

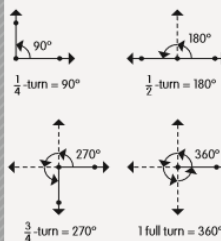


## Math Talk

Discuss **angles** with your child. Explain to your child that an angle is measured in **degrees**, which is represented by the symbol,  $^\circ$ . 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.



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.



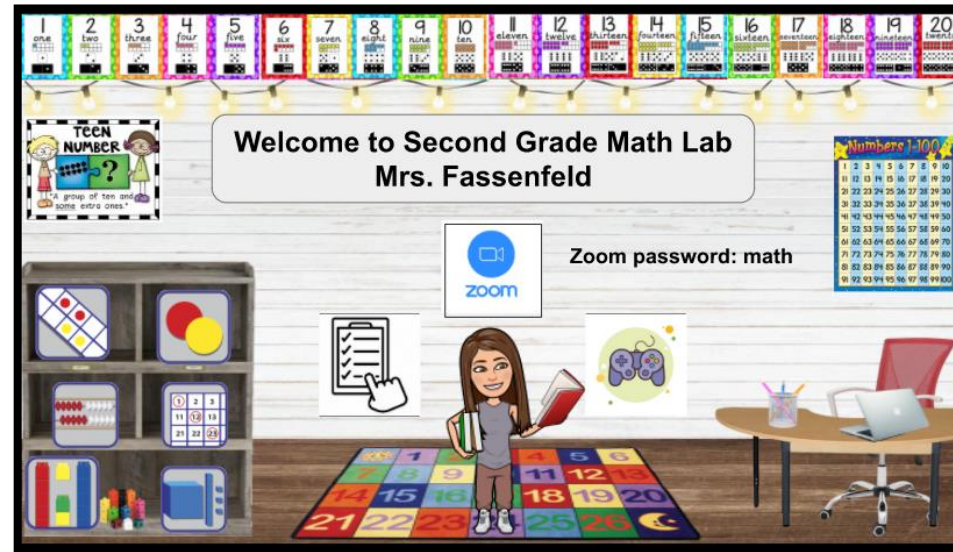
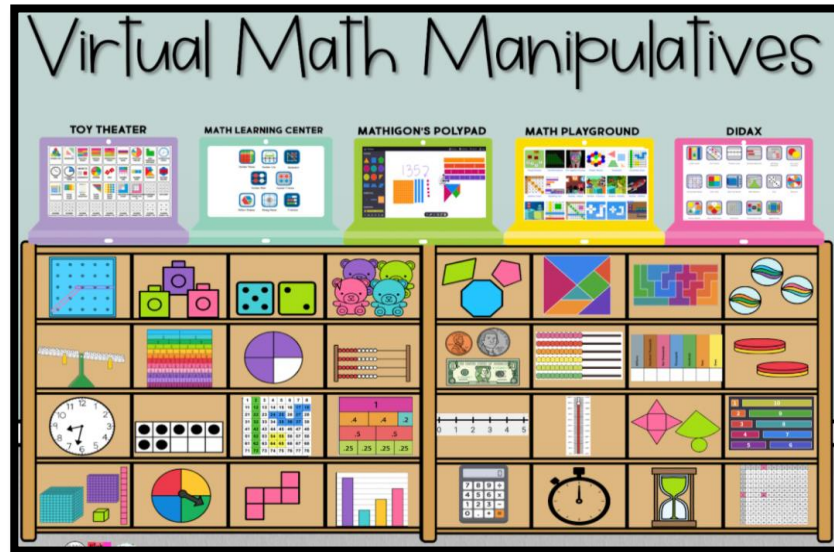
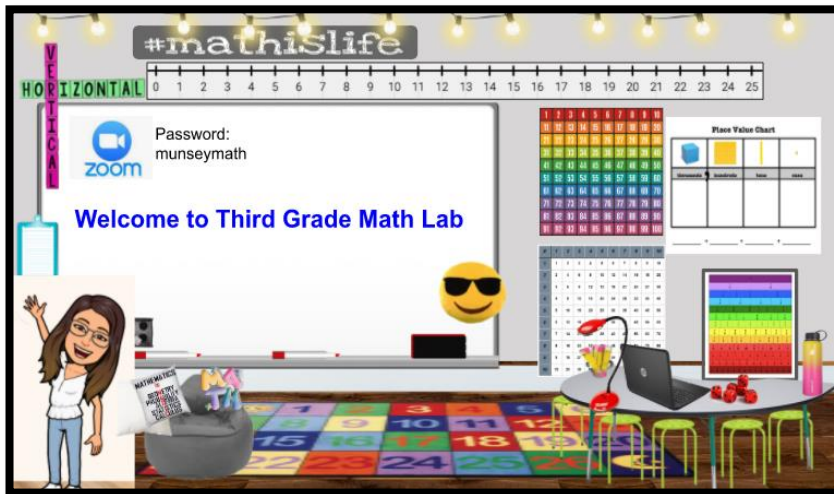
## Math Talk

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 **52.40<sup>th</sup>** percentile
- Average achievement at the **25<sup>th</sup>** percentile
- Average gain of **8.75** RIT score units

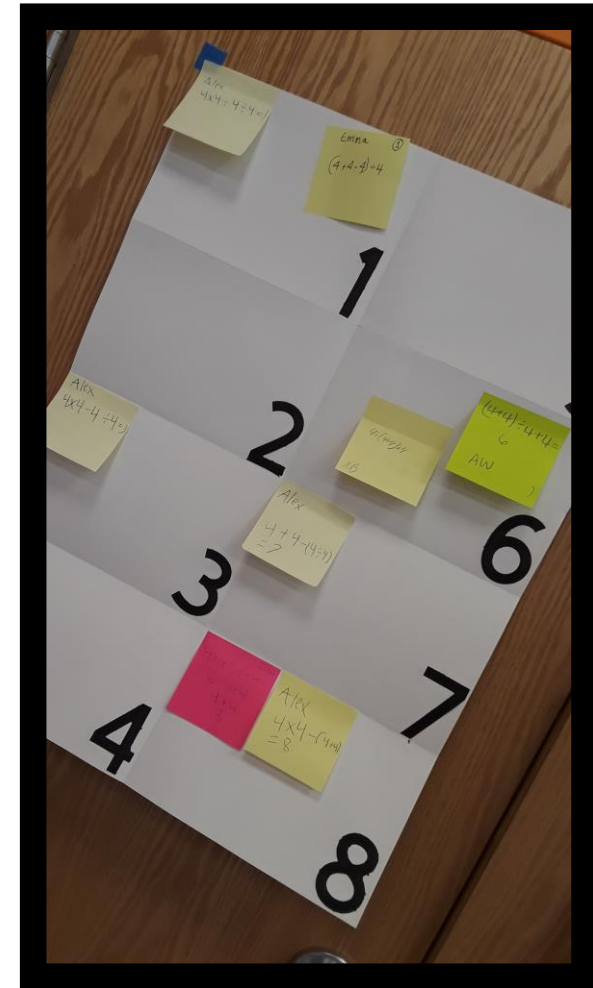
# Grade 5 Classroom Enrichment



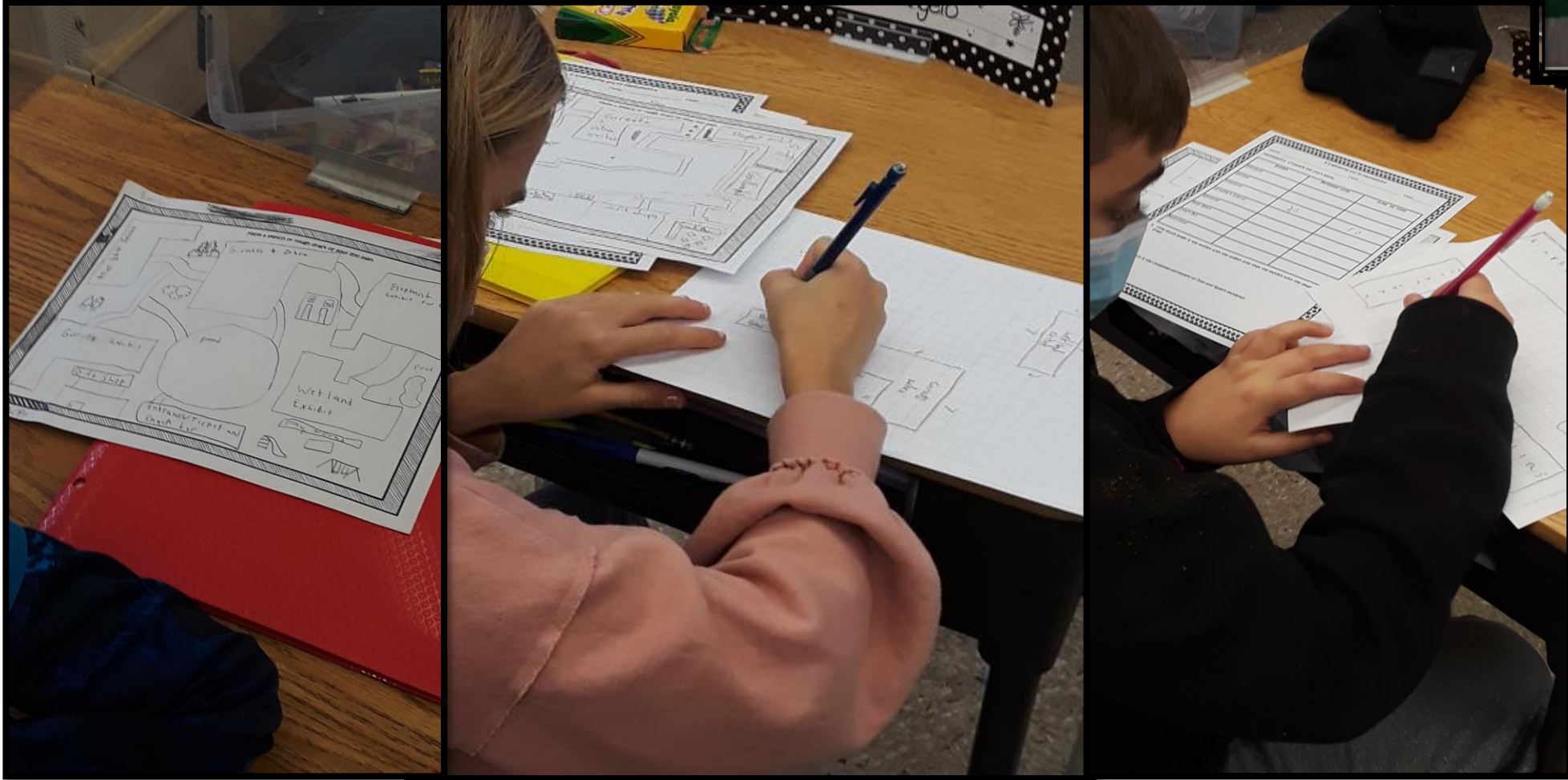
## Four 4's

$$4 + 4 + 4 + 4 = 16$$

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



# Grade 5 Classroom Enrichment: Math-ELA Connections



# Math Pathways for Grade 5 & 6

- All grade 5 students are placed in heterogeneously grouped math classes
- Grade 5 students in need of academic intervention for math receive these services in small groups outside of their regular math time
- All Grade 5 classes incorporate two 30-minute blocks of dedicated math enrichment time each week
- At the end of Grade 5, students may be identified for accelerated math in Grade 6





# Identification Process for Accelerated Math in Grade 6

## PHASE 1:

- CogAT exam offered in late Spring of 5<sup>th</sup> grade
  - At least 98<sup>th</sup> National Percentile on Quantitative/Non-Verbal Combined Score



## PHASE 2:

- Renzulli-Hartman Rating Scale
  - Helps identify students with flexible thinking, strong number sense, and natural curiosity
- Work Sample Review
- On-Demand Mathematical Tasks
  - Secure exam administered to identified students to assess appropriateness of skipping Grade 6 curriculum



# Timeline



- **Mid-May: CogAT exam (OPT-IN) for Grade 4 & 5 students**
- **Early June: Secure exam (On-Demand Mathematical Tasks) for invited students**
- **Mid-June: Committee meets to review secure exam results, teacher feedback, and student work samples**
- **End of School Year: Notification about acceptance to accelerated math pathway**

# Secure Exam (On-Demand Mathematical Tasks)

- Approximately 70% on Grade 6 learning standards
- Approximately 30% on deep conceptual knowledge of concepts learned prior to grade 6
- Roughly 1.5 hours in length
- Approximately 50 questions

# Math Pathways for Grade 7



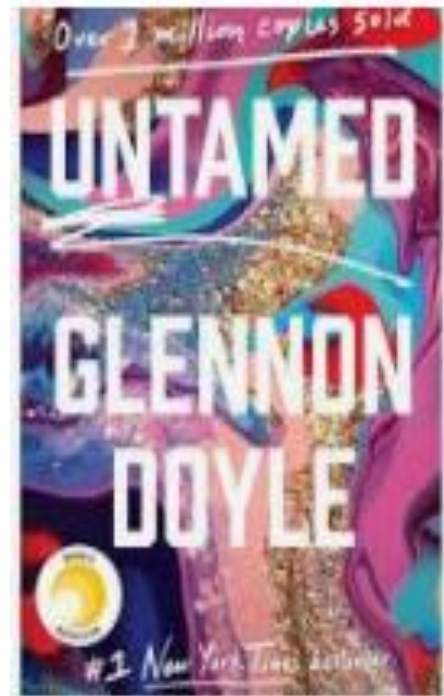
- Grade 6 students enrolled in Grade Level math progress to either
  - Math 7 R: Regents level pathway [currently 4 sections]
  - Math 7 E: Accelerated pathway [currently 5 sections]
- Grade 6 students enrolled in Advanced Math progress to either
  - Math 8 H: additional year of pre-algebra [approx. 1/3 of advanced students]
  - Math 9 H: Algebra course [approx. 2/3 of advanced students]



# Food For Thought...

*“There is so much about phones and children that parents worry about but I find myself worrying most that when we hand our children phones we steal their boredom from them. As a result we’re raising a generation of writers who will never start writing, artists who will never start doodling, chefs who will never make a mess of the kitchen, athletes who will never kick a ball against a wall, and musicians who will never pick up a guitar and start strumming.”*

*- Glennon Doyle*



**Thank you for attending!**

**Please reach out with your questions:**

[Lauren\\_Tallarine@manhassetchools.org](mailto:Lauren_Tallarine@manhassetchools.org)