

# Math Lab Newsletter

## October 2019

S.C. Red Elementary  
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Dear Math Parent:

Research on early childhood shows that children develop math and pre-reading skills as they move through their world. Children explore and balance themselves in physical space, identify patterns, and estimate and compare amounts<sup>i</sup>. Children develop early understanding of sounds, language and vocabulary through everyday interactions such as talking and singing, and when a loved one shares stories through books and oral storytelling traditions<sup>ii</sup>. Together, these important early math and language skills help children make sense of their world and help them develop a solid foundation for academic success once they enter school.

Just like a house is built on a foundation, advanced math skills are built on early math concepts like:

- ❖ Counting forward & backward
- ❖ Using objects like blocks or beans to represent numbers
- ❖ Counting, sorting & grouping objects into sets of 2, 3, 4 & 5
- ❖ Measuring & estimating size, quantity & distance
- ❖ Learning number sequences such as addresses & phone numbers

Try these activities throughout the day as you take walks and listen to your children talk about their day, as you play a card game together, or as they help you gather and put away groceries or laundry. Other activities highlighted in this newsletter can help reinforce number sense skills at home.

Happy reading!

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It's always time for math! 😊



### Interesting Dates & Facts

#### October

Computer Learning Month

#### October 12

National Savings Day

#### October 15

World Math Day

#### October 21

Count Your Buttons Day

#### October 31

Halloween

### Math-Themed Books!

***Eggs and Legs: Counting by Twos* by Michael Dahl, Ages 0 – 6.**

This sweet story helps young children learn to count by twos and find hidden numbers as animals hatch from eggs.

***Mr. Willy-Nilly and Zoey's Dream* by Ji-yun Shin, Ages 3 - 8**

A wolf named Mr. Willy-Nilly and a shepherd named Zoey become pals and find different ways to make ten.

***Sideways Arithmetic from Wayside School* by Louis Sachar, Ages 8 - 12**

Join the students in Mrs. Jewls' class at Wayside School as they solve fun math puzzles and brainteasers.

Visit your local public library to find these cool books with math themes:

Houston Public Library  
<http://houstonlibrary.org/>

Harris County Public Library  
<http://www.hcpl.net/>

## Out of School Time

### Chocolate Kiss Activities

#### Materials:

Chocolate Kiss candies  
Permanent marker  
Dot stickers or masking tape

**Background:** You might hear your child's teacher talk about **number sense**. Pre-K and Kindergarten students should be able to connect numbers with real objects in a set. Counting a group of objects while touching each object one at a time is more complex than counting out loud. 1<sup>st</sup> through 5<sup>th</sup> grade students will compare and order numbers from least to greatest (including fractions and decimals) and tell the value of a digit based on its position in a number.

#### Directions:

Write math facts on a small garage sale dot stickers or small strips of masking tape (for example  $8 + 6$ , or  $9 \times 5$ ). Write the answers on other stickers (for example: 14, or 45). Place the stickers on the bottoms of Hershey Chocolate Kisses. Arrange the candies in rows or a grid. Have the children turn over the candies to find the match. When they find three correct matches in a row, the chocolate is theirs to eat!

**Pre-K – 1st:** Write the digits 0 – 9 on the bottom of ten Chocolate Kiss candies. Have your child practice saying and placing the candies in order from least to greatest, and greatest to least. Your kiddos can also count, add and subtract groups of candies.

**2nd – 5th:** Write 2 or 3-digit numbers on the stickers to practice addition, subtraction, multiplication or division math facts and saying numbers. Have your child identify each digit and its value based on the digit's place or position in the number. Practice saying fractions and decimals. Use a cotton ball or other round object to represent a decimal point between digits. Example: 1.25 and  $1\frac{25}{100}$  are both called "One and 25 hundredths".

### Online Resources

<http://www.dreambox.com/blog/pumpkin-math-calendar>

### Math Joke of the Month

What do you get if you cross a math teacher and a clock?  
Mathema-ticks! 😊

#### Words to Know:

**number sense:** the ability to understand that numbers show amounts; how numbers are related; and to use numbers in flexible ways to add, subtract, multiply and divide. Example: 7 is made with 1 and 6, 2 and 5, or 3 and 4).

**digit:** each single symbol that we use to show numerals. **0, 1, 2, 3, 4, 5, 6, 7, 8** and **9** are the ten digits we use to make numerals in our number system. 7 is a one-digit number. 25 is a two-digit number. 128 is a three-digit number.



4<sup>th</sup> Grade students discuss math strategies in the Math Lab

#### Helpful Tips

Students with number sense can use numbers with flexibility – in other words, a child who can't immediately solve a math problem can use several different ways to figure out a solution because they have a solid understanding of the position and value of numbers. According to research by Jo Boaler (2015), a student with number sense can do more than memorize addition or multiplication facts. For example, to solve  $8 \times 9 = 72$ , a student with strong number sense can use a doubles strategy such as multiplying  $9 \times 9$  and subtracting 8, or by multiplying  $8 \times 8$  and adding 8.

Number sense is not about speed or memorization. It is about thinking deeply about numbers and "playing" with numbers to see how they can be created and broken apart.

Help your child notice numbers. How many numbers are on a clock? What shapes do you see around the room? Count the coins in your pocket at the end of the day. Fold a piece of paper in half two times. How many sections will the paper have when you open it? Number sense is built on the wonder of numbers. 😊

Sources: Boaler, J. (2015).  
<https://www.youcubed.org/>

**Fall Math Exploration:** Does a pumpkin float? Why, or why not? Describe and compare the size of a pumpkin other objects. Wrap a string or measuring tape around the pumpkin and estimate the size.

<sup>i</sup> Seo and Ginsburg, 2004  
<sup>ii</sup> Whitehurst and Lonigan, 1998