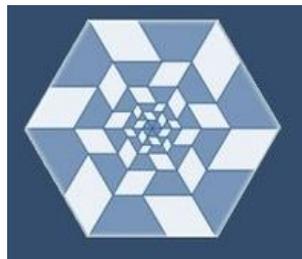


PS166 Kindergarten Math Parent Workshop

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K-5 Math Teaching Resources LLC



Common Core State Standards

In Kindergarten, instructional time focuses primarily on:

- (1) learning numbers and what numbers represent;
- (2) addition and subtraction.

Students will also learn to identify and work with shapes.



- ▶ Numbers to 10 (43 days)
- ▶ 2D and 3D shapes (12 days)
- ▶ Comparison of Length, Weight, Capacity and Numbers to 10 (38 days)
- ▶ Number Pairs, Addition and Subtraction to 10 (47 days)
- ▶ Numbers 10–20 and Counting to 100 (30 days)
- ▶ Analyzing, Comparing and Composing Shapes (10 days)

Counting and Cardinality

- ▶ Know number names and the count sequence (count to 100 by tens and ones).
- ▶ Count to tell the number of objects in a group.
- ▶ Compare two numbers to identify which is greater or less than the other.

Operations and Algebraic Thinking

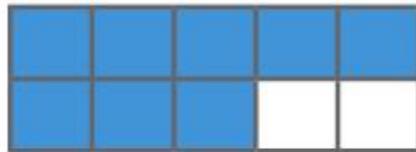
- ▶ Understand addition as putting together and subtraction as taking away from.
- ▶ Adding and subtracting numbers to 5 fluently.
- ▶ Breaking up numbers less than or equal to 10 in more than one way (e.g. $9 = 6 + 3$, $9 = 5 + 4$)
- ▶ For any number from 1 to 9, find the missing quantity that is needed to make 10
- ▶ Represent and solve addition and subtraction word problems using objects or by drawing pictures

Number and Operations in Base Ten

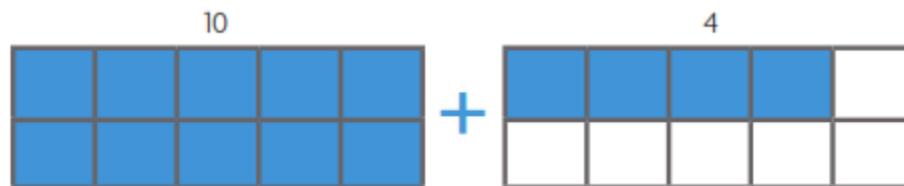
- ▶ Work with numbers 11–19 to gain foundations for place value.
- ▶ Understand that numbers from 11 to 19 contain a ten and some leftover ones (e.g. $18 = 10 + 8$)

One of the tools your child will work with to help them learn to think of ten as a unit is a ten frame. This is an important building block for developing understanding of place value.

Your child will learn to find the “partners” that make ten for any number. This drawing shows that if you have 8, it takes 2 more to make 10.

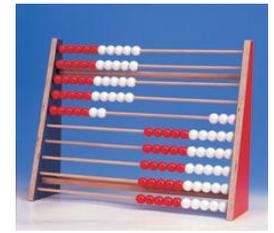


From there, students learn to think of ten as a unit and to break all the teen numbers down to a ten and some leftover ones.



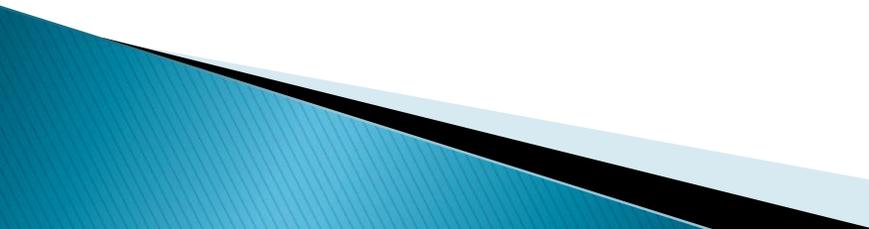


Meet the Rekenrek



- ❖ Show me 0–10
- ❖ Show me 11 – 20
- ❖ Quick Images
- ❖ Finding Different Ways to Make a Given Number
- ❖ How Many More?

Mathematical Practices

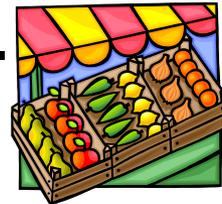
- ▶ Make sense of problems and persevere in solving them.
 - ▶ Reason abstractly and quantitatively.
 - ▶ Construct viable arguments and critique the reasoning of others.
 - ▶ Model with mathematics.
 - ▶ Use appropriate tools strategically.
 - ▶ Attend to precision.
 - ▶ Look for and make use of structure.
 - ▶ Look for and express regularity in repeated reasoning
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What Can I Do to Help My Child?

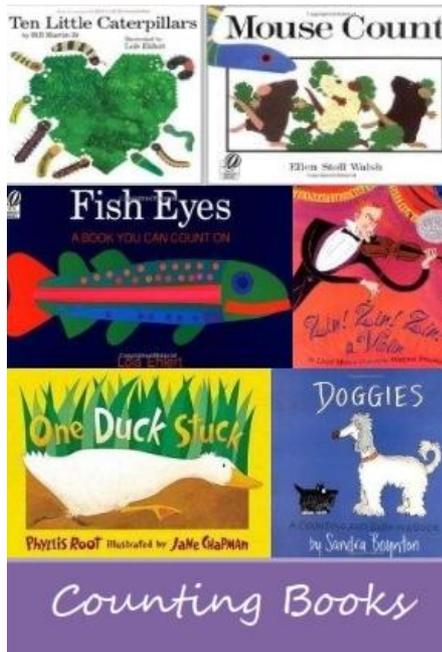
- ▶ Encourage your child to count real objects. Ask, “**How many are there?**” when your child is exploring familiar objects, such as a collection of toys, climbing stairs or helping to set the table for dinner (how many plates, cups, spoons etc. do we need?)
- ▶ Encourage your child to construct numbers in multiple ways. For example, what are some ways that you can make 10?

What Can I Do to Help My Child?

- ▶ Ask your child to look for numbers in the environment, like the numbers on buildings or signs when out walking. Find signs with a number chosen by your child, or look for signs with your child's age on them.
- ▶ When you're at the store ask your child to help. Questions such as "Can you get 5 apples and 3 bananas?" or "Can you get a 6 pack of yogurt?" help to develop counting skills.



What Can I Do to Help My Child?



- ❖ When reading together be sure to include picture books with a math theme on a regular basis. For possible titles visit: <http://astore.amazon.com/k5matteares-20>
- ❖ Play dominoes or board games with dice, such as Snakes and Ladders, to help your child recognize number patterns, practice counting and adding.
- ❖ Toys such as Magna Tiles are great for developing geometry skills and concepts.



What Can I Do to Help My Child?

- ▶ Play 'Guess my Number' when in the car or walking to school. Think of a number between 1 and 10. Give your child clues like "larger" or "smaller" and ask them to guess the number. This will help your child develop a 'mental number line' as they think about different numbers and how they relate to one another.
- ▶ Numbers are everywhere, and every day is filled with opportunities to help your child explore them. Take advantage of learning opportunities that happen naturally. When you use daily events that have meaning to your child, the impact can be very powerful.



Resources

- ▶ For more information on the Common Core State Standards go to:

www.corestandards.org/what-parents-should-know/

www.corestandards.org/Math/Content/K/introduction/

- ▶ For games and activities aligned with each Common Core State Math Standard that you can download and print for free:

www.k-5mathteachingresources.com/kindergarten-math-activities.html