

Math Play: 20 Minutes a Day

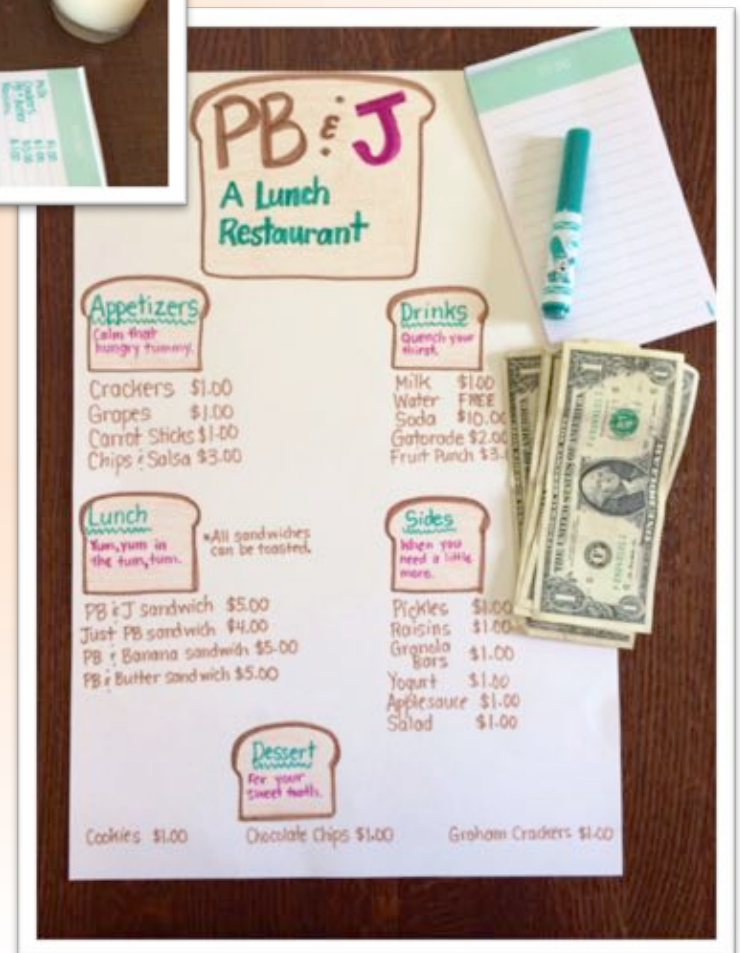
Jen Smith

K-4 Math Coach, Interventionist
Hortonville Area School District, WI

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**Beyond
Traditional
Math**

Why Math Play?

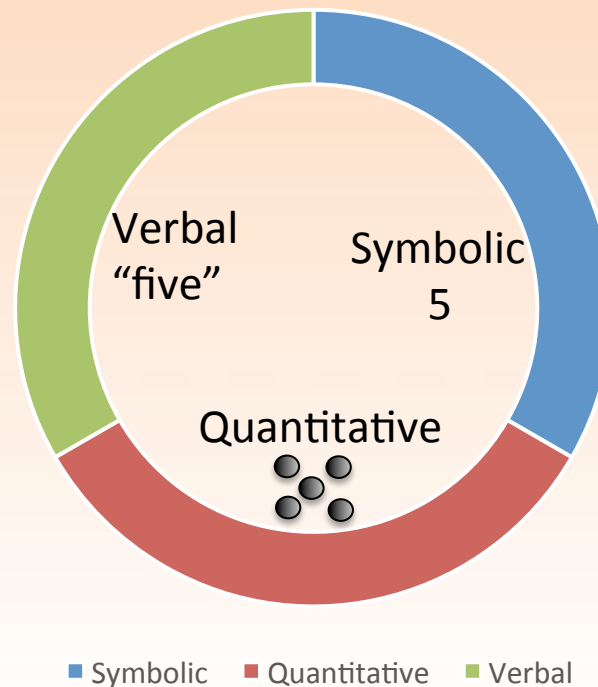
- ❑ Reading to our children/early literacy is linked to higher performance in later years.
- ❑ Games promote subitizing, quantity and numeral identification
- ❑ Board games are scarce these days at home...
- ❑ Math is a learning subject, full of exploration and wonder.



Research

- ❑ The 3 Aspects of Number (all 3 are needed to be a strong mathematician)
- ❑ Dr. Bob Wright, Southern Cross University, Australia.

The 3 Aspects of Number



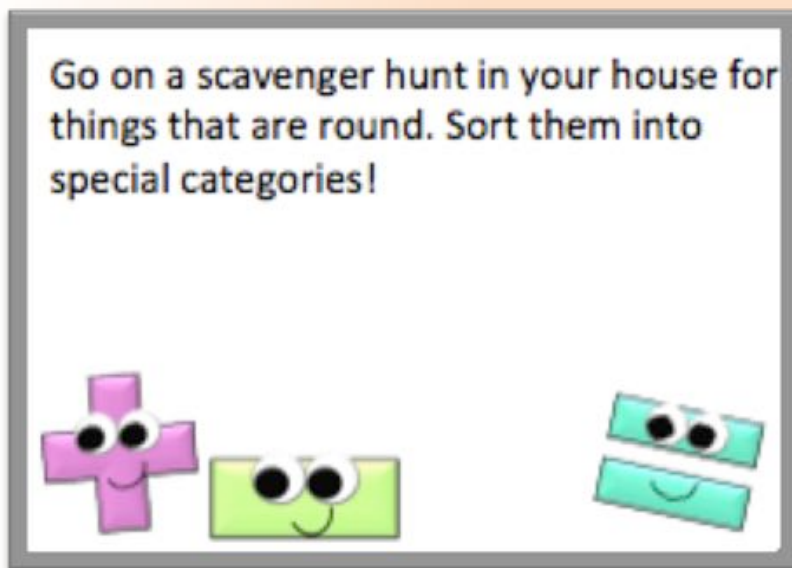
Math play tasks should:

- be very loose, even open ended.
- encourage exploration and creativity, where mistake making is OK
- be short, but tasks could go on longer if the student naturally extends
- Involve lots of math talk



Example:

- ❑ model this for kids...
- ❑ ask questions to go deeper
- ❑ have students come back and share at the end of the week (almost like a show and tell)

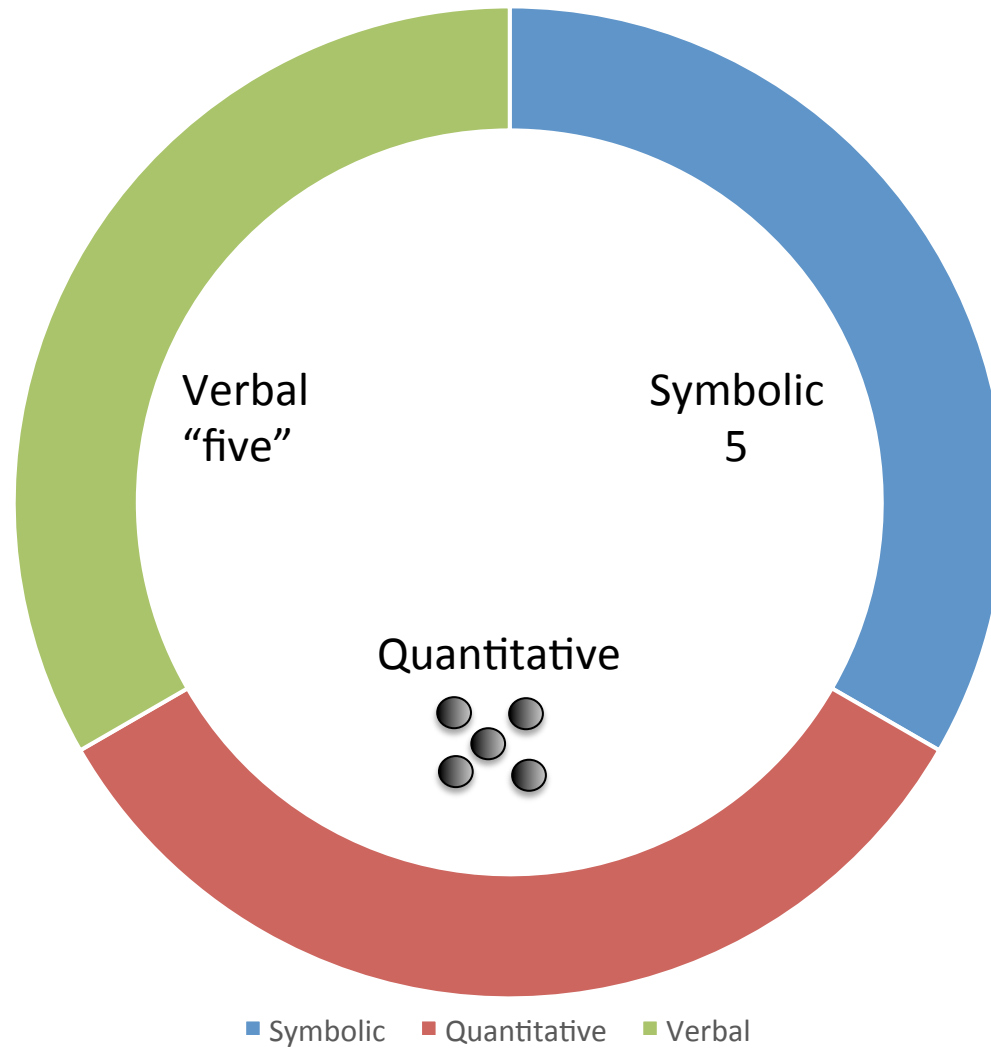


Try it Out!

- ❑ choose a few math tasks at the tables to try out
- ❑ try to look at it from the eyes of a child
- ❑ Share out: what math concepts are they exploring? What three aspects of number do you see? What CCSS math practice standards do you see in this type of play?



The 3 Aspects of Number



Draw some lines of all different lengths with your ruler on your paper. Measure how long they are in centimeters. How many are more than 10 centimeters?



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Roll a dice a bunch of times. Each time you roll a number, keep track of it with a tally mark. When you are done rolling, find out which number was rolled the most.



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How can you sort a deck of playing cards?
Sort them out, explain how you did it to
someone, then sort them a different way.
How many ways can you find to sort
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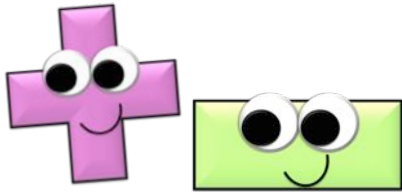
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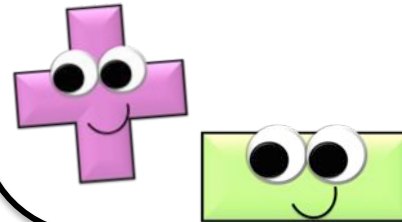
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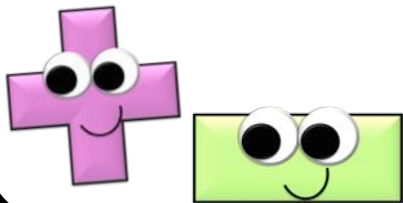
Get a handful of coins. How would you like to stack them? Tell someone how you stacked them and why you did it the way you did.



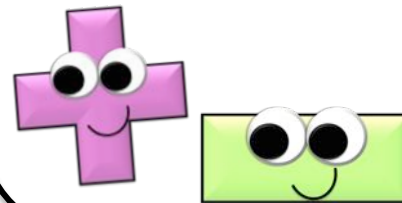
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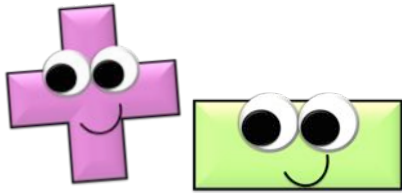
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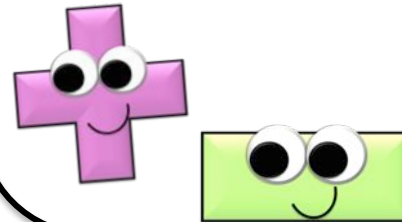
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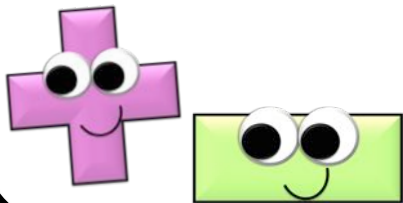
Fold a piece of paper in a special way.
When you open it back up, what do you notice?
Can you cut the lines and sort the shapes?



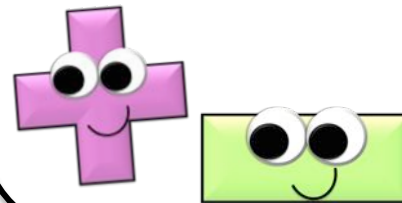
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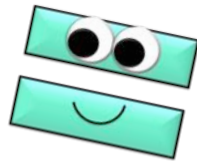
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Find objects that are smaller than your hand. Sort them into piles. Count each pile. Can you make that number on the calculator? How else can you make the number?



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Go on a scavenger hunt in your house for things that are round. Sort them into special categories!



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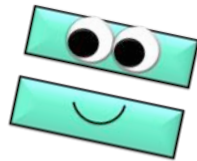
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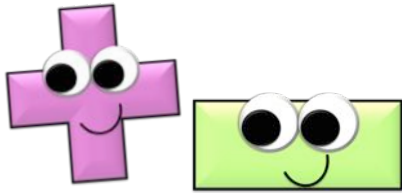
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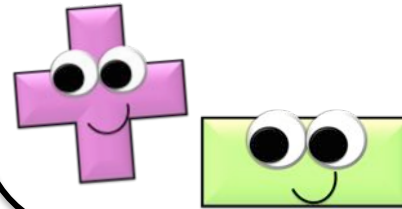
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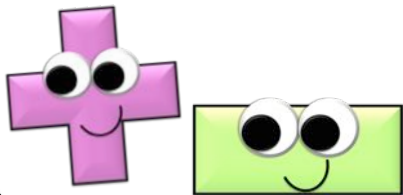
Ask someone to give you some numbers between 5 and 20. Write them down!
What do some of them have in common?
How are some of them different?



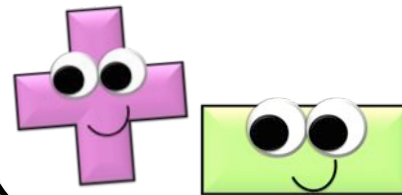
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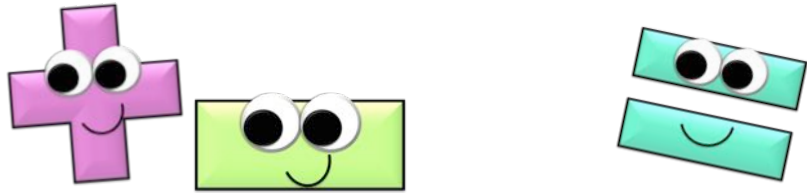
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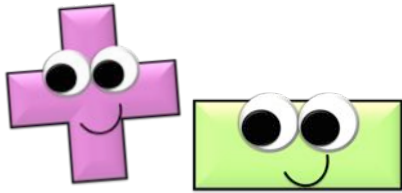
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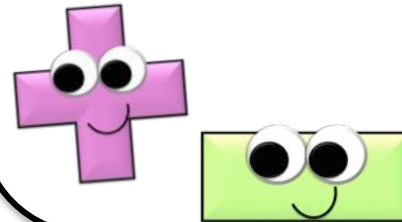
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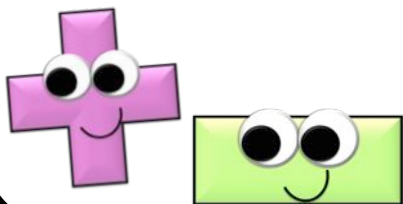
Use measuring cups to find out how much liquid can fit in a container. Does the same amount fit when you use flour or sand?



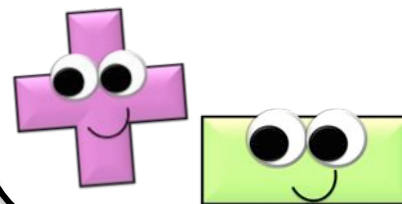
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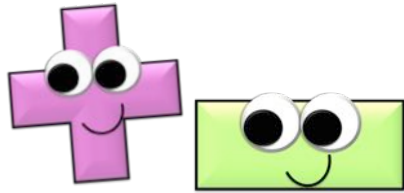
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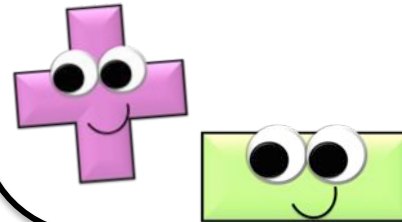
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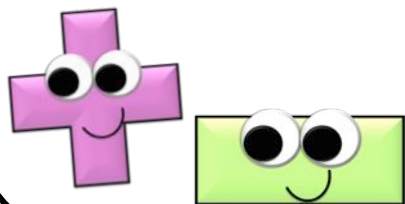
Go on a walk. Keep track of how many squirrels you see. Keep track of how many birds you see. Can you make a chart?



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