

## Kindergarten Math Night

Kindergarten				
Counting and Cardinality	Operations and Algebraic Thinking	Number and Operations in Base Ten	Measurement and Data	Geometry
Know number names and the count sequence. Introduce written number words zero, one, twoten (students are not responsible for being able to read these words, but they should be introduced)  Know digits and orally count to one hundred  Count to tell the number of objects. number, zero, one, twothirteen, fourteennineteen How many? count on Compare numbers. greater than, more, less than, fewer equal to, same amount as, compare	Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. join, putting together, add, adding to, separate, subtract, taking apart, taking from, and same amount as, equal, less than, more than, total, count on	Work with numbers 11–19 to gain foundations for place value. ones, number, leftovers  (Know digits and recognize number words when spoken orally to twenty)	Describe and compare measurable attributes. compare, attribute, length, weight, heavy(ier), light(er), long(er), big, small(er), more of, less of, tall(er), short(er) Classify objects and count the number of objects in categories. compare, sort, category, color words (blue, green, red, etc.), descriptive words (small, big, rough, smooth, bumpy, round, flat, etc.), more, less, same amount	Identify and describe shapes. Square, circles, triangle, rectangles, hexagon, cubes, cones, cylinder, sphere, flat, solid, side, corner, angle, edge, face, Above, below, beside, in front of , behind, next to, same, different, straight lines, curved (curvy) lines Analyze, compare, create, and compose shapes. compare, compose, attributes, sides, vertices/corners, vertex, two-and three-dimensional, same, different

"Children develop a true sense of number by working with real things, rather than with symbols." -Kathy Richardson







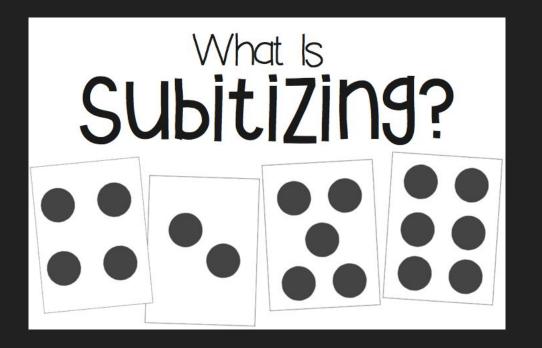


"Beginning number concepts are much more complex than most adults realize. It's important to recognize the complexity of those ideas so that we can provide the right kinds of experiences to support children's developing understanding.

Beginning number concepts involve much more than rote memorization of words and symbols."

## Deeper Rather Than Higher

Graham Fletcher Progression Video -Early Numbers and Counting



Subitizing is the ability to recognize a small group of objects without counting.

## Subitizing



#### Subitizing Recap: Why is it Important?

- It saves time. Subitizing numbers saves time through not having to count each individual member of a group, but instead by simply perceiving the number immediately.
- It is an important precursor to more complex number ideas.
- It helps consolidate and develop more elaborate counting skills.
- Students who can subitize small groups of numbers are able to develop their counting skills by counting on from the subitized group.
- It quickens the process of learning addition and subtraction.

### Math Talk



#### 10 MATH APPS

You MUST have!











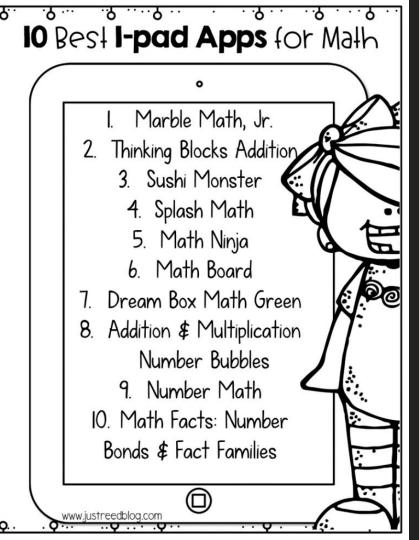












# Ouestions?

## Let's Play!

#### Compare!

- Each partner flips a card
- The partner with the higher number says, "More!"
- Alternative: Partner with lower number says, "Less!"

The more students play, the faster they become at recognizing the quantity shown without counting. The goal is subitizing!