

Measuring Yarn: At Home

Place Value Practice

From the Developing Number Concepts Series by Kathy Richardson

Goals:

- Explores how numbers are made up of tens and ones.
- Measures using single units instead of a ruler or yardstick so they can find out the number of tens and ones
- Thinks about why the objects we use to measure need to be the same size (can't mix large paper clips and small paper clips when measuring)
- Finds out the number of tens and leftover ones it takes
- Uses their knowledge of tens and ones to determine how many without counting by ones

Materials:

- Paper clips, Legos, toothpicks, Q-Tips, or other objects to use for measuring
- Lengths of yarn between 20 inches and 50 inches labeled with letters
- Paper to record

Procedures:

1. The child chooses a piece of yarn and the objects he is planning to use to measure the yarn.
For example: This child chooses Yarn F and decides to use pennies.
2. Ask the child, "How many tens and ones do you think it will take to measure this piece of yarn?" The child writes down his guess.
3. The child lines up the pennies, finds out how many tens and ones were used and writes it down. In this case, the child would write 2 tens and 5 ones. The child then writes the total as 25.



GUESS	Tens	Ones	Total
30	2	5	25

4. The child selects a new piece of yarn to measure and repeats.

What to watch for:

- Can the child organize the counters into tens and ones?
- Is the child able to tell how many counters have been used at any given time by seeing how many tens and ones they have so far or do they need to count by tens or by ones?
- Does the child want to make a new estimate as he gets closer to the end of the yarn?

Suggestion(s):

If the child does not figure out a way to keep track of how many tens and ones, ask them, "How will you know how many tens there are?"