

Unit Name: Measurement and Data: Measure It, Sort It

What are we doing? You will be using the manipulatives provided to practice measuring, comparison, sorting, and counting. You will also be reading and re-telling a story using ordinal numbers (first, second, third etc.).

Purpose/Why? Children will gain experience in comparing sizes and weights, as well as making observations regarding similarities and differences in objects and sorting them appropriately.

Children will also have the opportunity to tell stories about events that happen in order which will allow them to learn and practice using ordinal numbers, which is one of the skills identified in Learning Pathways in Numeracy.

Materials provided: Chain links, assorted counters

You will need to provide: paper, pencil or crayons, plastic hanger, two identical play buckets or cups, yarn or string, assorted other collections such as animal figures or buttons.

Books:

- "How Long is a Whale" by Alison Limentani
- "How Much Does a Ladybug Weigh?" By Alison Limentani
- "Little Red Hen" by Jerry Pinkney
- "Sam Sorts (One Hundred Favorite Things)" by Marthe Jocelyn
- "So Light, So Heavy" by Susanne Strasser



Vocabulary Builder: First, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, beginning, last

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Quick Start: Read the story of the “Little Red Hen” to your child. Page through the book a second time and ask your child to help re-tell the story using the pictures as clues. Introduce ordinal numbers as new vocabulary words and use these ordinal numbers as you tell the story (first, second, third). It is OK to shorten the story as you see fit, the focus should be on using the ordinal words.

Show Me; Show a Friend: Have your child retell the story of Little Red Hen or a story about one of your family’s routines such as bathtime or bedtime using ordinal words.



Vocabulary Builder: measure, length, longer, shorter, compare, equal



Quick Start: Look at one of the chain links and compare to your finger. Which is longer? Which is shorter? Compare one chain link to your hand. Which is longer? Which is shorter? Will your foot be longer or shorter than one chain link? Two chain links? Try it out and discuss the answers.

Count out a pile of 5 chain links and a pile of 10 chain links. Connect them so you have two chains and compare the two. Which one is longer? Which one is shorter? How many chain links will you need to add to the shorter one so that they are the same length? How do you know?

Show Me; Show a Friend: Have your child demonstrate how they can measure various objects and explain the difference between them.

Other Activities: Find items around the house that you can measure. Using your chain links, guess if your item will be shorter or longer than your 5 chain link or your 10 chain link.

Make a list of 3 items in your house that you can measure. How many chain links long are each of those items? Draw a picture of the three items in order of size.

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MATH



Vocabulary Builder: measure, weigh, weight, compare, heavy (heavier); light (lighter)



Deeper Dive: Make your own balance scale

Place the plastic hanger in a place where it can hang free. Using the yarn or string, tie the buckets onto each end so that they hang equally. If you don't have small play buckets, use a hole punch to make holes in 2 paper cups and hang them on either side of the hanger.

Drop one of the chain links into one of the cups. Observe what happens. What will happen if I drop a chain link into the other cup? Observe what happens. Count out 5 chain links and add them to the first bucket. Count out another 5 chain links and add them to the second bucket. Count out a third set of chain links and ask what will happen if we add them to one of the buckets. Continue to count and explore what happens when you add to the bucket.

Empty out all the buckets and put 5 chain links into one of the buckets. Using the counters, drop one counter into the second bucket and observe what happens each time. Estimate how many counters you'll need before the second bucket becomes heavier than the first one. Continue to hypothesize and explore with the chain links and the counters.

Show Me; Show a Friend: Have your child be the teacher and show and explain to you what happens when different objects are put into the two buckets.

Sort It



Vocabulary Builder: attribute, same, different, similarities, differences, bigger, smaller

ENGINEERING

TECHNOLOGY

SCIENCE

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Quick Start: Look at the counters and talk about all the ways they are similar and different such as size or color. Introduce the word attribute. Choose one attribute and sort the counters accordingly.

ENGINEERING

Ask a Question? How are these the same? How are they different? How many ways can these be sorted? Are there more of one group than another?



Deeper Dive: Read the book "Sam Sorts" and talk about different collections that you have. What makes them the same? What makes them different?

Just like in the book, gather lots of objects such as buttons, blocks, Legos®, shells, cars, figures, stuffed animals, or pretend food along with the counters and chain links included in this STEM bag. Pick an attribute and count out loud to 10 as you find 10 objects that fit that attribute. Pick another attribute and count another 10 items. Do this 10 times and then have your grown-up help you count to 100.

TECHNOLOGY

Ask a Question? Can you tell me about your groups? How many ways can you sort your objects?

Show Me; Show a Friend Have your child sort objects and explain what attribute he is using to sort them by.

SCIENCE

Other Activities: Look at your 10 groups of 10. Mix them up and re-sort them in a different way.

