

Fabric Counts

Create your own bar graph by sorting and graphing colored fabric squares.

Big Idea

Students will engage in graphing and sorting various fabrics, defining their own attributes and following various sorting rules.

Standards

<p>6.D.ECa Compare two collections to see if they are equal or determine which is more, using a procedure of the child's choice.</p>	<p>Students will sort fabric into groups based on an attribute, graph those fabrics, and determine which group has more or less.</p>
<p>7.A.ECa Compare, order, and describe objects according to a single attribute.</p>	<p>Students will choose a noticeable attribute in the displayed fabrics and sort the fabric according to that attribute.</p>
<p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p>	<p>Students will sort fabric into categories and place the fabric onto the graph, identifying how many pieces of fabric are in each category.</p>

Materials

- Fabric that is
 - Patterned and cut into triangles
 - Patterned and cut into squares
 - Plain and cut into triangles
 - Plain and cut into squares
- Different x-axis attribute labels with pictures (such as Patterned/Plain, Squares/Triangles, Reds/Blues/Greens) to help students identify attributes they can graph
- Unifix cubes
- Small swaths of fabric separate from the graphing set cut into various ways or with various patterns (floral fabric, fabric with jagged edges, triangles, etc.)
- Tape for the floor graph

Setup

Two tables and one large carpet/floor space is needed for this activity. At one table, set out multiple bowls with three different colors of Unifix cubes in each bowl. At the second table, set out different piles with 8-12 pieces of smaller fabric per pile. Each pile will be a sorting station for one or two children. At the carpet or floor space, tape down

two large graphs where the students will work together to create their life-size fabric graphs. Have the fabric set out in baskets, as well as the attribute cards.

Directions

1. At station one, students will be gearing up for graphing by using the Unifix cubes. They will sort them by color and affix them, comparing the sizes of each bar and determining which has the most and least.
2. At station two, students can play the game "What's my rule?" Students can partner up and sort the fabric by various attributes, with their partner having to guess which rule they used to sort the fabric.
3. At the third station, children will interact with a life-size graph. Identify the x-axis and y-axis and what they are used for, and lay out a sample graph for students to describe and explore. Students can work together to identify an attribute, graph handfuls of fabric based on said attribute, and analyze their graph.

Investigation Questions:

- What are attributes are you identifying?
- How many do you have of each?
- Which bar has more?
- Which bar has less?
- What patterns and fabric do you have on today?
- Where would you graph your shirt/socks/pants etc.?