Project 18

Graph Track

Objective: Child will be able to represent data in a bar graph and use the data to make inferences about the data.

Essential Question(s): How can we gather data about similar things and compare it?

Special Materials: Pencil and paper and sticky notes for labeling the graph
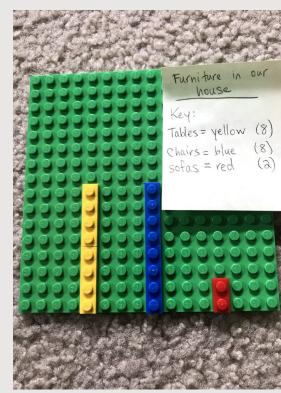**Bricks Required:** 16x16 plates, 1xn bricks

Engage/Explain:
1. This project should be done with a group.
2. Begin by asking the children about things they like, looking for some broad categories such as after-school activities, cookies, reading.
   a. Choose a category and ask for more specifics: "Who likes chocolate chip cookies? Oatmeal?" Ask children to commit to one answer and create a table on collecting the data (how many prefer chocolate chip, how many prefer oatmeal, etc.).
   b. Ask comparing questions about the data, then about how children compared the data (addition or subtraction).
   c. Introduce bar graphs as a way to visually see differences in data, building a brick bar graph and reviewing labeling, units, etc.
      i. Asks additional questions about the data, asking children to group. "How many prefer a cookie that has chocolate?" for instance, would group together Oreos and chocolate chip.

Explore/Explain:
1. Ask children for ideas of two or three other things to count (hair color, favorite snack, etc.). Guide children to grouping categories ("fruit" instead of apples or grapes, etc).
   a. Make a table collecting the information.
2. In pairs, have children choose one of the data sets to visually represent using bricks.
   a. Ask children to build a bar chart, then label the axes.

Engage/Explain:
3. Ask children to compare their data and take notes using their bar chart:
   a. Which category has the most?
   b. Which category has the least?
   c. How many more in category A than category C?
   d. How many when two categories are combined?