
Parent News:
Data Analysis and Probability for Preschoolers?

Data analysis and probability may seem like big topics for preschoolers. But, without calling it data analysis, most young children are constantly collecting data, thinking about it, and making predictions. With a little guidance from their teacher at the center and you, as their parent, children enjoy delving into data analysis.

One part of *A Child's Job* is understanding how everything works. As children explore, they are gathering data about their world and its workings. In the center, some ways that teachers help guide children to organize and understand this data they collect follow:

- Teachers and children create group graphs by charting how many children share a particular characteristic or favorite (ie, how many with brown/blonde/red hair?). Topics could include favorite fruit, number of siblings in the family, etc.
- Teachers may encourage children to gather additional data from home for graphing. “Homework” could be the child asking his/her parent(s), sibling(s), or neighbors what their favorite color is. The person writes their name on a sheet of paper and the child colors in a sample of their favorite color which is then graphed in the homebase.
- Teachers may have a homebase “Question Box.” Children can be assisted to write out their questions (i.e., “Does anyone else have a baby at their house?”), or can use invented spelling or pictures to denote their questions. Staff can prompt children throughout the day, “That would be a good question for the Question Box.” A certain day can be chosen for answering the questions in the box. Some may lend themselves to graphing, others may not, but all encourage inquisitiveness and data collection.
- A homebase may have a “Counter of the Day”. An item is chosen each day to be counted (noses, earrings, pockets, etc.). Each child gets a cube block for each item they have (2 blocks for 2 earrings) and then all the blocks are collected and counted.

At home, there are additional ways that you can support data gathering, analysis and probability:

- Sorting and classifying objects is another aspect of data analysis. Being able to make decisions about how to group objects helps children organize their data. Children typically learn to sort first by one attribute (like sorting by color) and then move to multiple attributes (sorting by color and size, such as grouping all the big blue objects together). Eventually children can tell you why a set of objects is grouped a particular way even if they didn’t do the sorting themselves.
- Model the use of probability vocabulary including *impossible*, *maybe* and *certainly*. Ask probability questions such as “Which group do you think will be bigger, the group of children who have a cat or the group of children without cats?”

Data analysis and probability are not outside the realm of preschool and kindergarten children. The trick is asking the right questions on their level to open up a lifelong disposition towards curiosity and data gathering.

Reference: Copley, J. V. (2000). *The Young Child and Mathematics*. Washington, DC: National Association for the Education of Young Children.

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