

Dear Family,

The next unit in your child's mathematics class this year is ***Samples and Populations: Data and Statistics***. The unit will involve the process of statistical investigation. As part of this process, we will pay special attention to the ways that data are collected.

UNIT GOALS

Probability is a tool for understanding sampling issues in statistics; statistics is a tool for representing and analyzing data that may then be used to draw conclusions about a population. The problems in *Samples and Populations* help students make connections between probability and statistics.

This unit begins with tools for grouping data and comparing distributions. Then students explore what samples are and how they are related to populations, ways to select samples, and the use of random samples. Finally, students look at relationships between two attributes and what it means to say that information about values from one attribute can be used to understand, explain, or predict values of another attribute.

HELPING WITH HOMEWORK

You can help with homework and encourage sound mathematical habits as your child studies this unit by asking questions such as:

- What is the population? What is the sample? What sampling method was used?
- What kinds of comparisons among the data from the sample can I explore?
- Can I use my results to make predictions or generalizations about the populations?
- Were the ways in which the data were collected or analyzed likely to give results that represent the population?

In your child's notebook, you can find worked-out examples from problems done in class, notes on the mathematics of the unit, and descriptions of the vocabulary words.

HAVING CONVERSATIONS ABOUT THE MATHEMATICS IN SAMPLES AND POPULATIONS

You can help your child with his or her work for this unit in several ways:

- Using newspapers, magazines, television, or radio, help your child identify situations in which statistics are being used, paying particular attention to who or what was sampled.
- Talk about whether data from a particular study can be used to make accurate predictions about a larger population.
- Look over your child's homework and make sure that all questions are answered and that explanations are clear.

A few important mathematical ideas that your child will learn in *Samples and Populations* are given on the back. As always, if you have any questions or concerns about this unit or your child's progress in class, please feel free to call.

Sincerely,