

Dear Family,

The next unit in your child's mathematics class this year is **Stretching and Shrinking: Similarity**. Its focus is geometry, and it develops understanding of and skill in the use of concepts of similarity.

UNIT GOALS

In this unit, your child will use properties of similar figures to explore reductions and enlargements such as those made on copy machines. Similarity will also be used to estimate the height of real objects (such as buildings and flagpoles) and the distance across large areas (such as ponds).

The problems are designed to help students begin to reason proportionally by scaling in geometry situations. By the end of this unit, your child will know how to create similar figures, how to determine whether two figures are similar, and how to predict the relationship between lengths and areas for two similar figures. The next unit, *Comparing and Scaling*, continues to develop proportional ideas in numerical, rather than geometric, contexts.

HELPING WITH HOMEWORK

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

- When two figures are similar, what is the same in each figure?
- When two figures are similar, what is different in each figure?
- How might we describe these differences?
- How do ratios relate to similarity?
- When two figures are similar, how can we describe the relationship between their areas?
- When two figures are similar, how can we describe the relationship between their perimeters?

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 STRETCHING AND SHRINKING

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

- Talk with your child about any situations that are like those in this unit—places in the real world where items are reduced or enlarged, such as models.
- Continue to have your child share his or her mathematics notebook with you, showing you the different ideas about similarity that have been recorded. Ask your child why these ideas are important. Share any ways that reductions or enlargements help you in your work or hobbies.
- Look over your child's homework and make sure all questions are answered and that explanations are clear.

A few important mathematical ideas that your child will learn in *Stretching and Shrinking* 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,