

# Family Letter

Dear Student and Family Members,

In the next chapter, our class will study ratio and proportion. We will begin with the idea of mixing different strengths of dye to explore ratios. Using this model makes the idea of ratio and proportion easy to see and understand. For example, Mixture A will be darker because the ratio of dye to water is 3:1, and it is only 2:1 in Mixture B.



We will also learn how to scale ratios. For example, to make a larger batch of Mixture A, keep the ratio the same but increase the number of cans. This can be done by multiplying both parts of the ratio by the same number.

Percentages are a kind of ratio. Some people may refer to 4 out of 5 athletes while others may describe the same group as 80% of the athletes. Often, we are not interested in the actual amounts of two quantities but only in what percent of the whole each of these quantities represents. Percentages let us compare things on a common scale. Can you think of situations in which you have seen or used percents?

We will use proportions to find missing quantities and to estimate large quantities that would be difficult or impossible to count. For instance, we can estimate the total number of people affected by a flu epidemic by counting the number in a small sample and using the proportion to estimate the total.

**Vocabulary** Along the way, we'll be learning about these two new vocabulary terms:

**proportion**

**unit rate**

## What can you do at home?

Encourage your student to point out different instances where ratios are used in his or her life, such as finding the cost of 5 cans of beans if 2 cans cost 70 cents. Other examples might include a ratio of adults to students on a field trip or a label that shows your favorite drink consists of 10% juice.