Investigations Glossary

Algorithms – A set of rules for performing a procedure.

Benchmark – A "nice" number that be used to estimate the size of other numbers. 0, 1/2 and 1 are good benchmarks

Decimal– A special form of a fraction. 1/2 can be written in the form of 0.5

Denominator – The number written below the line in a fraction. In the fraction 3/4, 4 is the denominator

Equivalent Fractions –Fractions that are equal in value but have different numerators and denominators. For example, 2/3 and 14/21 are equivalent fractions.
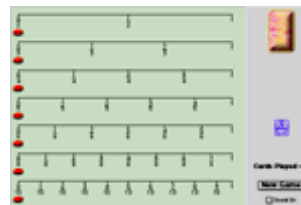
Numerator – The number written above the line in a fraction. In the fraction 5/8, 5 is the numerator.

Web Resources

You will find the Fraction Game and the Fraction Pie Game at:

www.illuminations.nctm.org

Fraction Game

Fraction Pie

Everett Public Schools

Connected Mathematics Project

Everett Public Schools Mathematics Program

Bits and Pieces II
Fractions, Decimals and Percents

Unit Goals:

♦ **Build understanding of fractions, decimals, and percents**
♦ **Understand how to change fractions to decimals and percents**
♦ **Use percents to compute and estimate taxes, and discounts**
♦ **Use percents in real world problems**

Proposed Time Frame:
Approximately 6 weeks

Investigation 1 Using Percents

* Develop an understanding of the concept of percent
* Use $1.00 as a way to visualize percents
* Use percents in estimating or computing taxes, tips and discounts

Investigation 2 More About Percents

* Investigate the relationships among fractions, decimals and percents
* Understand the concept of "out of 100"

Investigation 3 Estimating with Fractions and Decimals

* Estimate sums of fractions and decimals
* Understand when to use overestimate and underestimate
* Use estimation strategies to approximate a sum

Investigation 4 Adding and Subtracting Fractions

* Develop strategies for adding and subtracting fractions
* Understand when addition or subtraction is the appropriate operation
* Reinforce understanding of equivalence of fractions
* Use estimation to help make decisions

Investigation 5 Finding Areas and Other Products

* Develop and understanding of multiplication of fractions
* Find a fraction of a whole number
* Solve Real-world Problems

Tips for Helping at Home

Good questions and good listening will help children make sense of mathematics and build self-confidence. A good question opens up a problem and supports different ways of thinking about it. Here are some questions you might try, notice that none of them can be answered with a simple "yes" or "no".

Getting Started

* What do you need to find out?
* What do you need to know?
* What terms do you understand or not understand?

While Working

* How can you organize the information?
* Do you see any patterns or relationships that will help solve this?
* What would happen if…?

Reflecting about the Solution

* How do you know your answer is reasonable?
* Has the question been answered?
* Can you explain it another way?

At Home:
1 Talk with your child about what's going on in mathematics class.
2 Look for ways to link mathematical learning to daily activities. Encourage your child to figure out the amounts for halving a recipe, estimating gas mileage, or figuring a restaurant tip.
3 Encourage your child to schedule a regular time for homework and provide a comfortable place for their study, free from distractions.
4 Monitor your child's homework on a regular basis by looking at one problem or asking your child to briefly describe the focus of the homework. When your child asks for help, work with them instead of doing the problem for them.

At School
1 Attend Open House, Back to School Night, and after school events.
2 Join the parent-teacher organization

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