Home Link 1-1

NAME DATE

Introduction to *Third Grade Everyday Mathematics*

Welcome to *Third Grade Everyday Mathematics.* It is part of an elementary school mathematics curriculum developed by the University of Chicago School Mathematics Project.

Several features of the program are described below to help familiarize you with the structure and expectations of *Everyday Mathematics.*

A problem-solving approach based on everyday situations
By connecting their own knowledge to their experiences both in school and outside of school, children learn basic math skills in meaningful contexts so the mathematics becomes "real."

Frequent practice of basic skills
Instead of practice presented as tedious drills, children practice basic skills in a variety of ways. Children will complete daily review exercises covering a variety of topics, find patterns on the number grid and the multiplication and division facts table, work with multiplication and division fact families in different formats, analyze visual number images, and play games that are specifically designed to develop basic skills.

An instructional approach that revisits concepts regularly
To improve the development of basic skills and concepts, children regularly revisit previously learned content and repeatedly practice skills encountered earlier. The lessons are designed to build on concepts and skills throughout the year instead of treating them as isolated bits of knowledge. Research shows repeated exposure to these concepts and skills over time develops children's abilities to recall knowledge from long-term memory.

A curriculum that explores mathematical content and practices
Everyday Mathematics provides a rich problem-solving environment, which helps children develop critical thinking skills. Children solve different kinds of problems, explore multiple solution strategies, explain their thinking to others, and make sense of other children's thinking.

Please keep this Family Letter for reference as your child works through Unit 1.

Following the recommendations of the national mathematics standards, *Third Grade Everyday Mathematics* emphasizes the following content:

Numbers and Operations in Base Ten Using place-value understanding to add and subtract multidigit whole numbers, and multiply one-digit numbers by multiples of 10; rounding numbers to the nearest 10 and 100

Number and Operations—Fractions Understanding fractions as numbers; representing fractions on a number line; recognizing equivalent fractions and comparing fractions

Operations and Algebraic Thinking Developing fluency with multiplication and division facts; exploring properties of operations and the relationship between multiplication and division; solving problems involving more than one operation; using estimation to check the reasonableness of answers

Measurement and Data Solving problems involving time, liquid volume, and mass; telling time to the nearest minute and calculating elapsed time; measuring and estimating mass in grams and kilograms and volume in liters; organizing and representing data with bar and picture graphs; measuring to the nearest $\frac{1}{4}$ inch and organizing measurement data on line plots

Geometric Measurement Measuring areas of rectangles by tiling with square units; finding area measures by counting square units and multiplying side lengths; solving problems involving areas and perimeters of rectangles

Geometry Recognizing categories of shapes with shared attributes, such as quadrilaterals; dividing shapes into equal parts and naming parts with a fraction

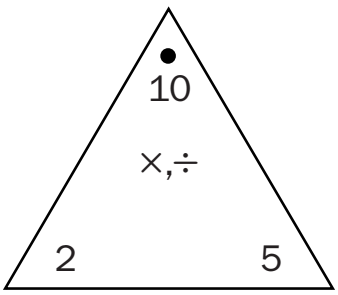
Everyday Mathematics provides you with many opportunities to monitor your child's progress and to participate in your child's mathematics experiences. Throughout the year, you will receive Family Letters to keep you informed of the mathematical content that your child will be studying in each unit. Each letter includes a vocabulary list, suggested Do-Anytime Activities for you and your child, and an answer guide to selected Home Link (homework) activities. You will enjoy seeing your child's confidence and comprehension soar as he or she connects mathematics to everyday life.

We look forward to an exciting year!

Unit 1: Math Tools, Time, and Multiplication

This unit reviews and extends mathematical concepts that were developed in *Second Grade Everyday Mathematics*. In Unit 1, children will . . .

- use number grids to add and subtract.
- round 2- and 3-digit numbers to the nearest tens and hundreds on open number lines.
- review math tools including clocks, rulers, and calculators.
- tell time to the nearest minute.
- measure time intervals in minutes and solve problems involving elapsed time.
- begin a yearlong Length-of-Day project that involves collecting, recording, and graphing sunrise and sunset data.
- collect and organize data on scaled bar graphs.
- analyze "Quick Looks" of equally-grouped dot patterns and arrays to develop fluency with multiplication.
- solve multiplication and division number stories using strategies based on intuitive understandings of equal groups, arrays, and sharing.
- play games, such as *Multiplication Draw,* to strengthen number skills and develop fact fluency for 2s, 5s, and 10s multiplication facts.



- estimate and measure mass in grams and kilograms.

Do-Anytime Activities

The following activities provide practice for concepts and skills taught in this unit.

- Discuss examples of mathematics in everyday life: road signs, recipe measurements, weight, time, and so on.
- Discuss household tools that can be used to help solve mathematical problems, such as coins, thermometers, and clocks.
- Tell time to the nearest minute on analog clocks and calculate how long daily activities take.

Vocabulary

Important terms in Unit 1:

array An arrangement of objects in a regular pattern, usually rows and columns.

elapsed time The difference in two times. For example, between 12:45 P.M. and 1:30 P.M., 45 minutes have elapsed.

equal groups Sets with the same number of elements, such as cars with 5 passengers each, rows with 6 chairs each, and boxes containing 100 paper clips each.

equal-grouping situation A situation in which a quantity is divided into equal groups. The total and size of each group are known and the number of groups is unknown. For example: How many tables seating 4 people each are needed to seat 28 people?

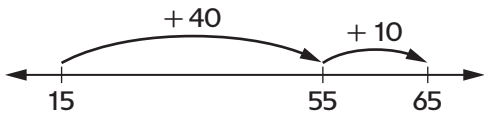
equal-sharing situation A situation in which a quantity is shared equally. The total quantity and the number of shares are known, and the size of each share is unknown. For example: There are 12 toys to share equally among 4 children. How many toys will each child get?

estimate An answer close to, or approximating, an exact answer.

mass A measure of the amount of matter in an object. Mass is not affected by gravity, so it is the same on Earth, the moon, or anywhere else in space. Mass is usually measured in grams, kilograms, and other metric units.

number grid A table in which numbers are arranged consecutively, usually in rows of ten. A move from one number to the next within a row is a change of 1; a move from one number to the next within a column is a change of 10.

open number line A line on which children can mark points or numbers that are useful for solving problems.



round To approximate a number to make it easier to work with or to make it better reflect the precision of the data. For example, to add 37 + 57, one might round 37 to 40 and 57 to 60, add 40 + 60 = 100, and then say that 37 + 57 is a little less than 100.

As You Help Your Child with Homework

As your child brings home assignments, you may want to go over the instructions together, clarifying them as necessary. Each Family Letter will contain answers, such as the following, to guide you through the unit's Home Links. Answers to Home Links 1-2 and 1-12 are not shown.

Home Link 1-1

1. 26 **2.** 28

3. Sample answer: I counted by 10s from 97 to 117 and got 20. Then I counted by ones to 125 and got 8. So the answer is 28.

4. 6 **5.** 7 **6.** 13 **7.** 13

Home Link 1-3

1. Answers vary. **2.** 8:00 **3.** 3:30

4. 6:15 **5.** 11:45 **6.** 7:10

7. 5:40 **8.** Answers vary.

Home Link 1-4

1. 90 **2.** 300

3. 40 + 60 = 100; 94; Sample answer: Yes. 94 is close to my estimate of 100, so my answer is reasonable.

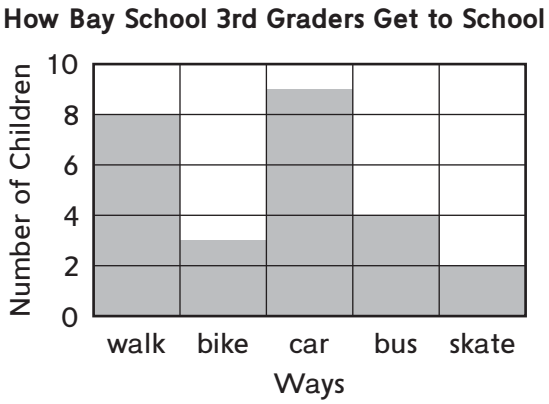
Home Link 1-5

1. 8:00; 8:06 **2.** 3:30; 3:39 **3.** 1:45; 1:52

Home Link 1-6

The swim meet was 2 hours and 30 minutes long.

Home Link 1-7



Home Link 1-8

1. 30 apples
Sample answer: 

Number model: 5 × 6 = 30;
6 + 6 + 6 + 6 + 6 = 30

2. 24 plants

Sample answer: 

Number model: 3 × 8 = 24; 8 + 8 + 8 = 24

Home Link 1-9

1. 3 baskets **2.** 10 bags

Home Link 1-10

1. 10, 10, 10, 10 **2.** 12, 12, 12, 12

3. 2 × 7 = 14; 7 × 2 = 14; 14 ÷ 2 = 7; 14 ÷ 7 = 2

4. 2 × 8 = 16; 8 × 2 = 16; 16 ÷ 2 = 8; 16 ÷ 8 = 2

5. 5 × 4 = 20; 4 × 5 = 20; 20 ÷ 5 = 4; 20 ÷ 4 = 5

6. 10 × 6 = 60; 6 × 10 = 60; 60 ÷ 10 = 6; 60 ÷ 6 = 10

Home Link 1-11

1. 20 minutes

Home Link 1-13

1. about 500 grams

2. Sample answer: There are 1,000 grams in each kilogram, so Marco's bag has a mass of 1 kilogram. Emmi's bag has a mass of 2 kilograms, so her bag has more mass.

3. 10 **4.** 11 **5.** 12 **6.** 13