## Place Value in Whole Numbers and Decimals

In Unit 5, children will review place value up to 5 -digit whole numbers. They will read, write, compare, and order these numbers before they begin to explore larger numbers.
To understand real-life applications of larger numbers, children will study population data about U.S. cities. They will also approximate their own ages to the minute.


In second grade, children studied decimals by working with money. In this unit, they will gradually extend their knowledge of decimals in the following ways:

- through concrete models, such as base-10 blocks.
- by writing decimal values in three ways (0.1, one-tenth, $\frac{1}{10}$ ).
- by comparing and ordering numbers with
 symbols ( $<,>,=$ ).


## Unit 5: Family Letter cont.

## Vocabulary

Important terms in Unit 5:
place value $A$ system that gives a digit a value according to its position, or place, in a number. The value of each digit in a numeral is determined by its place in the numeral. This chart demonstrates the value of each digit in the numeral 4,815.904 (read as four thousand, eight hundred fifteen, and nine hundred four thousandths):

| thousands | hundreds | tens | ones | tenths | hundredths | thousandths |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| 4 | 8 | 1 | 5 | 9 | 0 | 4 |  |
| Each <br> thousand <br> is equal <br> to one <br> thousand <br> times the <br> unit value. <br> 4,000 | Each <br> hundred <br> is equal <br> to one <br> hundred <br> times the <br> unit value. <br> 800 | Each ten <br> is equal to <br> ten times <br> the unit <br> value. | Each one <br> is equal to <br> the unit <br> value. | Each tenth <br> is equal to <br> $\frac{1}{10}$ of the <br> unit value. | Each <br> hundredth <br> is equal to | Each <br> thousandth <br> is equal to <br> unit value. | $\frac{1}{1,000}$ of the <br> unit value. |

maximum The largest amount, or the greatest number in a set of data.
millimeter A metric unit of length equivalent to $\frac{1}{10}$ of a centimeter and $\frac{1}{1,000}$ of a meter. pie graph A graph in which a circle is divided into regions corresponding to parts of a set of data.

## Areas of the Continents <br> (in square miles)



2,966,000
line graph A graph in which data points are connected by line segments.

Temperature in Chicago June 8, 2005


## Do-Anytime Activities

To work with your child on the concepts taught in this unit and in previous units, try these activities:

1. Dictate large numbers for your child to write. Examples: 4,123; 10,032; 2,368,502.
2. Display similar multidigit numbers on a calculator for your child to read.
3. Together, write 5 multidigit numbers in order from smallest to largest.
4. Start at any whole number and, using a calculator, count on by increments of 0.01 or 0.1 .
5. Use money on a family shopping trip; practice making change.

## Building Skills through Games

In Unit 5, your child will practice numeration and computation skills by playing the following games. For detailed instructions, see the Student Reference Book.

## Baseball Multiplication

Players use multiplication facts to score runs. Team members take turns pitching by rolling two dice to get two factors. Then players on the batting team take turns multiplying the two factors and saying the product.

## Number Top-It

As players pick each card, they must decide in which place-value box (from ones to ten-thousands at first, and then on to hundred-thousands) to place the card so that they end up with the largest number.

## Beat the Calculator

A Calculator (a player who uses a calculator) and a Brain (a player who solves the problem without a calculator) race to see who will be first to solve multiplication problems.

## Division Arrays

Players make arrays with counters using number cards to determine the number of counters and a toss of a die to determine the number of rows.


## Unit 5: Family Letter cont.

## 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. The answers listed below will guide you through this unit's Home Links.

## Home Link 5*1

1. 8,$879 ; 8,889 ; 8,899 ; 8,909 ; 8,919 ; 8,929$
2. 8,$789 ; 8,889 ; 8,989 ; 9,089 ; 9,189 ; 9,289$
3. 7,$889 ; 8,889 ; 9,889 ; 10,889 ; 11,889 ; 12,889$

## Home Link 5•2

1. $<$
2. $>$
3. $<$
4. $<$
5. $>$
6. $<$
7. 3,689
8. 9,863
9. Answers vary.
10. 51,$100 ; 52,100$
11. 56
12. 163
13. 796
14. 484

## Home Link 5•3

1. largest: $7,654,321$; smallest: $1,234,567$ total: $8,888,888$
2. 7,037,562; 7,000,007; 4,056,211; 104,719; 42,876; 25,086; 9,603; 784
3. 42,876
4. $7,037,562$
5. $4,056,211$
6. 7,000,007

## Home Link 5*4

1. 7 continents
2. Asia
3. Australia
4. Antarctica, North America, and South America
5. Europe
6. North America
7. Africa

## Home Link 55

| 3,358 | 5,338 |
| :--- | :--- |
| 3,385 | 5,383 |
| 3,538 | 5,833 |
| 3,583 | 8,335 |
| 3,835 | 8,353 |
| 3,853 | 8,533 |

Home Link 5*7

1. $\frac{3}{10}$ or $\frac{30}{100} ; 0.3$ or 0.30
2. $\frac{9}{100} ; 0.09$
3. $\frac{65}{100} ; 0.65$
4. $0.3 ; 0.65 ; 0.65$
5. $0.04,0.53,0.8$

## Home Link 5-8

1. 57 hundredths; 5 tenths 7 hundredths
2. 70 hundredths; 7 tenths 0 hundredths
3. 4 hundredths; 0 tenths 4 hundredths
4. 0.23
5. 8.4
6. 30.20
7. 0.05
8. $0.4 ; 0.5 ; 0.6 ; 0.7 ; 0.8 ; 0.9$
9. $0.04 ; 0.05 ; 0.06 ; 0.07 ; 0.08 ; 0.09$
10. 503
11. 603

## Home Link 5*9

1. $0.01 ; 0.02 ; 0.03 ; 0.04 ; 0.05 ; 0.06 ; 0.07 ; 0.08$
2. $0.8 ; 0.9 ; 1.0 ; 1.1 ; 1.2 ; 1.3 ; 1.4$

3. 27
4. 40
5. 0
6. 12
7. 9
8. 15

## Home Link 5•10

1. a. 2
b. 10
c. 20
d. 100
e. 200
f. 600
2. a. 30 cm
b. 0.3 m
c. 300 mm
3. 49
4. 56
5. 63
6. 42

## Home Link 5*11

1. $<$
2. $<$
3. $>$
4. $=$
5. $>$
6. $<$
7. =
8. $<$
9. hundredths, or 0.09
10. ones, or 3
11. 6.59; 6.60; 6.61
12. 1.03; 1.13; 1.23
13. 4.4
14. 4.17
15. 8.1
16. 5.53
17. 243
18. 782
19. 509

## Home Link 5•12

1. 455
2. 455
