

Teaching Masters and Home Link Masters



Name _____ Date _____ Time _____

HOME LINK 2-3 Doubles Facts

Family Note Today we worked with an Addition/Subtraction Facts Table and dominoes to practice with a special kind of addition problem called doubles facts. $3 + 3 = 6$, $4 + 4 = 8$, and $5 + 5 = 10$ are examples of doubles facts. We also worked with almost-doubles facts, such as $3 + 4 = 7$, $5 + 4 = 9$, and $7 + 8 = 15$. Review doubles facts and almost-doubles facts with your child.
Please return this Home Link to school tomorrow.

1. Write the sum for each doubles fact.

a. $2 + 2 = \underline{\quad}$ b. $\underline{\quad} = 5 + 5$ c. $\underline{\quad} = 0 + 0$

d. $\begin{array}{r} 7 \\ + 7 \\ \hline \end{array}$ e. $\begin{array}{r} 3 \\ + 3 \\ \hline \end{array}$ f. $\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$ g. $\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$

h. $9 + 9 = \underline{\quad}$ i. $\underline{\quad} = 1 + 1$ j. $\underline{\quad} = 4 + 4$

2. Ask someone to give you doubles facts. You say the sums. Do this for about 10 minutes or until you know all the doubles facts.

3. Write each sum. Use doubles facts to help you.

a. $5 + 4 = \underline{\quad}$ b. $4 + 5 = \underline{\quad}$ c. $\underline{\quad} = 9 + 8$

d. $\begin{array}{r} 6 \\ + 7 \\ \hline \end{array}$ e. $\begin{array}{r} 2 \\ + 3 \\ \hline \end{array}$ f. $\begin{array}{r} 7 \\ + 8 \\ \hline \end{array}$ g. $\begin{array}{r} 6 \\ + 5 \\ \hline \end{array}$

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Name _____ Date _____ Time _____

LESSON 6-6 Making a Dollar

Work together in a small group.

Materials 20 nickels
 10 dimes
 4 quarters
 paper and pencil

Directions

- Use the coins to find as many different ways as you can to make \$1.00.
- Before you begin, THINK about how to do this. *Hint:* First, make a dollar using 3 quarters and some other coins.
- Plan how you will record the different ways to make \$1.00.
- On a sheet of paper, record the different ways you find to make \$1.00. Use $\text{\$}$, $\text{\$}$, and $\text{\$}$ to show the coins.

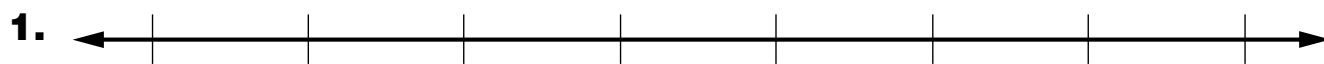
Follow-Up

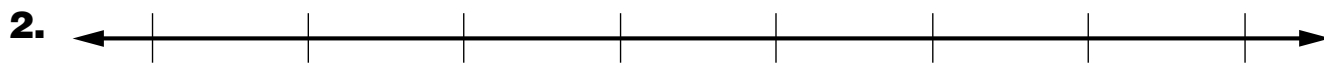
- How many ways did you find to make \$1.00? Check with other groups to see if they thought of any ways that your group didn't find.
- Did you have a plan to find all the combinations? Compare your plan with the plan used by another group.

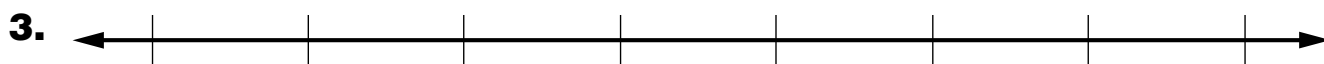
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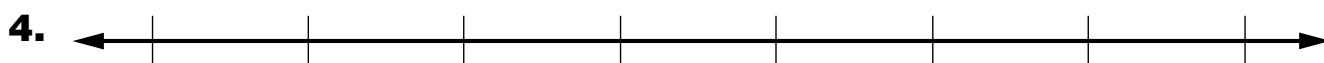
LESSON
1•1

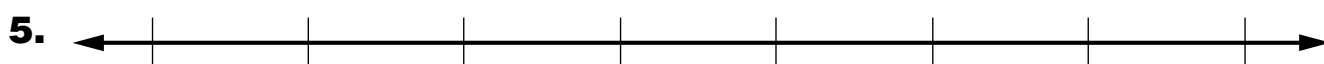
Number Lines

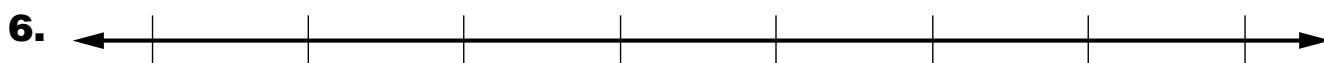














Introduction to *Second Grade Everyday Mathematics*

Welcome to *Second Grade Everyday Mathematics*. It is a 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 making connections between their own knowledge and their experiences both in school and outside of school, children learn basic math skills in meaningful contexts so the mathematics becomes “real.”

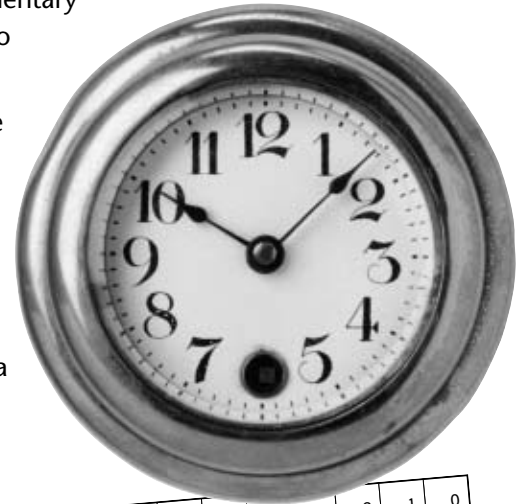
Frequent practice of basic skills Instead of practice presented in a single, tedious drill format, children practice basic skills in a variety of more engaging ways. Children will complete daily review exercises covering a variety of topics, find patterns on the number grid, work with addition and subtraction fact families in different formats, and play games that are specifically designed to develop basic skills.

An instructional approach that revisits concepts regularly

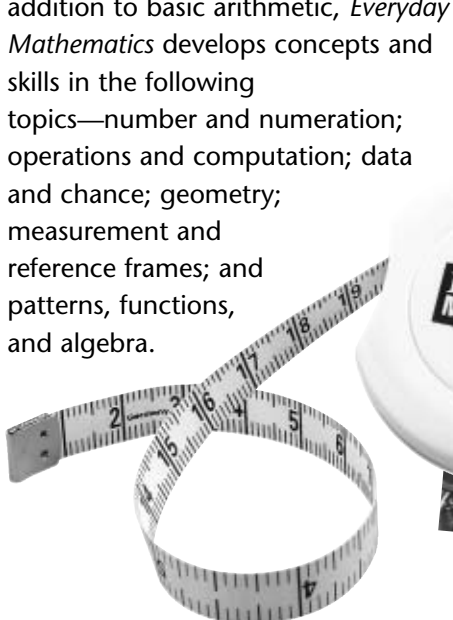
To improve the development of basic skills and concepts, children regularly revisit previously learned concepts and repeatedly practice skills encountered earlier. The lessons are designed to build on concepts and skills throughout the year instead of treating them as isolated bits of knowledge.

A curriculum that explores mathematical content beyond basic arithmetic

Mathematics standards around the world indicate that basic arithmetic skills are only the beginning of the mathematical knowledge children will need as they develop critical-thinking skills. In addition to basic arithmetic, *Everyday Mathematics* develops concepts and skills in the following topics—number and numeration; operations and computation; data and chance; geometry; measurement and reference frames; and patterns, functions, and algebra.



-9	-8	-7	-6	-5	-4	-3	-2	-1	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110



Second Grade Everyday Mathematics emphasizes the following content:

Number and Numeration Counting; reading and writing numbers; identifying place value; comparing numbers; working with fractions; using money to develop place value and decimal concepts

Operations and Computation Recalling addition and subtraction facts; exploring fact families (related addition and subtraction facts, such as $2 + 5 = 7$, $5 + 2 = 7$, $7 - 5 = 2$, and $7 - 2 = 5$); adding and subtracting with tens and hundreds; beginning multiplication and division; exchanging money amounts

Data and Chance Collecting, organizing, and interpreting data using tables, charts, and graphs

Geometry Exploring and naming 2- and 3-dimensional shapes

Measurement Using tools to measure length, weight, capacity, and volume; using U.S. customary and metric measurement units, such as feet, centimeters, ounces, and grams

Reference Frames Using clocks, calendars, thermometers, and number lines

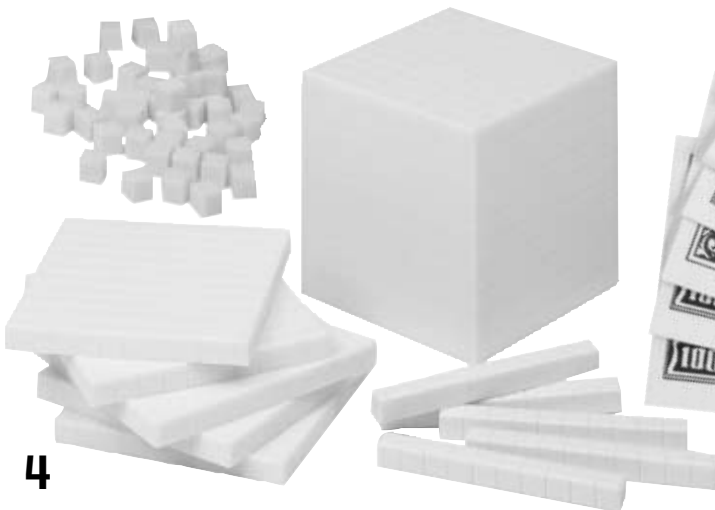
Patterns, Functions, and Algebra Exploring number patterns, rules for number sequences, relations between numbers, and attributes

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: Numbers and Routines

This unit reacquaints children with the daily routines of *Everyday Mathematics*. Children also review and extend mathematical concepts that were developed in *Kindergarten Everyday Mathematics* and *First Grade Everyday Mathematics*.

In Unit 1, children will ...

- ◆ Count in several different intervals—forward by 2s from 300, forward by 10s from 64, backward by 10s from 116, and so on.
- ◆ Practice addition facts, such as $5 + 4 = ?$ and $? = 7 + 5$.
- ◆ Review whole numbers by answering questions like “Which number comes after 57? After 98? After 234?” and “Which number is 10 more than 34? 67? 89?”
- ◆ Respond to prompts like “Write 38. Circle the digit in the 10s place. Put an X on the digit in the 1s place.”
- ◆ Work with a number grid to reinforce place-value skills and observe number patterns.

-9	-8	-7	-6	-5	-4	-3	-2	-1	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

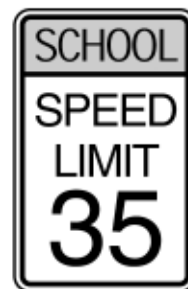
← Children use number grids to learn about ones and tens digits and to identify number patterns, such as multiples of three.

- ◆ Review equivalent number names, such as $10 = 5 + 5$, $10 = 7 + 3$, $10 = 20 - 10$, and so on.
- ◆ Play games, such as *Addition Top-It*, to strengthen number skills.
- ◆ Practice telling time and using a calendar.

Do-Anytime Activities

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

1. Discuss examples of mathematics in everyday life: television listings, road signs, money, recipe measurements, time, and so on.
2. Discuss rules for working with a partner or in a group.
 - ◆ Speak quietly. ◆ Be polite. ◆ Help each other.
 - ◆ Share. ◆ Listen to your partner.
 - ◆ Take turns. ◆ Praise your partner.
 - ◆ Talk about problems.
3. Discuss household tools that can be used to measure things or help solve mathematical problems.



SOFTBALL PARK		
HOME	INNING	VISITOR
3	7	10
BALL ••	STRIKE •	OUT •

Vocabulary

Important terms in Unit 1:

math journal A book used by each child; it contains examples, instructions, and problems, as well as space to record answers and observations.

tool kits Individual zippered bags or boxes used in the classroom; they contain a variety of items, such as rulers, play money, and number cards, to help children understand mathematical ideas.

Math Message A daily activity children complete independently, usually as a lead-in to the day's lesson. For example: "Count by 10s. Count as high as you can in 1 minute. Write down the number you get to."

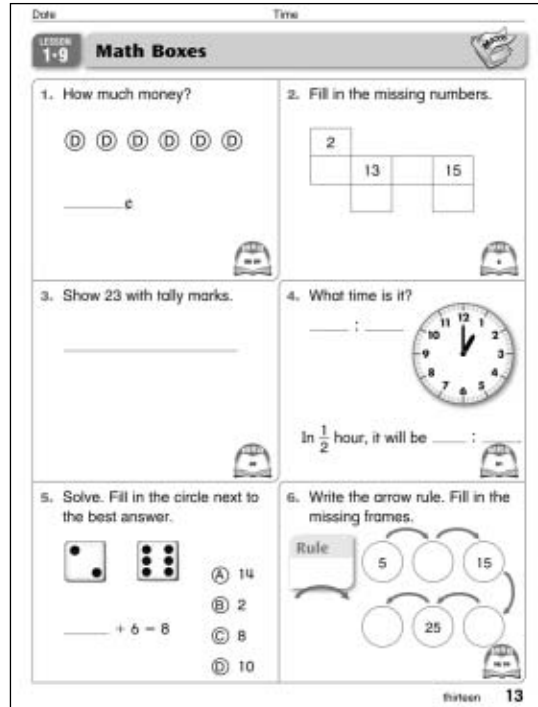
Mental Math and Reflexes A daily whole-class oral or written activity, often emphasizing computation done mentally.

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.

-9	-8	-7	-6	-5	-4	-3	-2	-1	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

Exploration A small-group, hands-on activity designed to introduce or extend a topic.

Math Boxes Math problems in the math journal that provide opportunities for reviewing and practicing previously introduced skills.



Home Links Problems and activities intended to promote follow-up and enrichment at home.



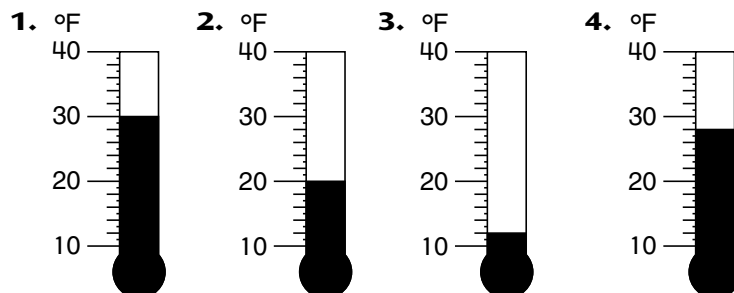
As You Help Your Child with Homework

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 1·11

1. <
2. >
3. >
4. =
5. Answers vary.
6. Answers vary.

Home Link 1·12







LESSON
1·2**Sorting and Counting Coins**

Sort your coins into piles of pennies, nickels, dimes, and quarters.

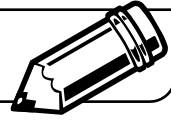
Count the number of coins you have in each pile. Record your total number of coins for each pile.

Calculate the total value for each pile of coins. Record your total value for each pile of coins.

Coin	Number of Coins	Value of Coins
Pennies 		
Nickels 		
Dimes 		
Quarters 		

Try This

Calculate the total value of all of your coins. _____

LESSON
1•3**My Activities**

1. List some of the activities you do on a school day.

My Activities		
Activity	Time	
	From	To

2. Which activity takes the longest amount of time? _____

About how long does it take? _____

3. Which activity takes the least amount of time? _____

About how long does it take? _____

Try This

4. About how long do your activities take all together? _____

LESSON
1•7**Counting on the Number Grid**

1. Start at 0. Count by 3s on the number grid up to 50. Color each number you land on yellow.
2. Put your finger on 12. Write an X on the number that is 10 more than 12.
3. Put your finger on 20. Count back 5. Circle the number you land on.
4. Put your finger on 37. Count back 8. Color the number you land on blue.
5. Put your finger on 74. Count back 40. Color the number you land on red.

-9	-8	-7	-6	-5	-4	-3	-2	-1	0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
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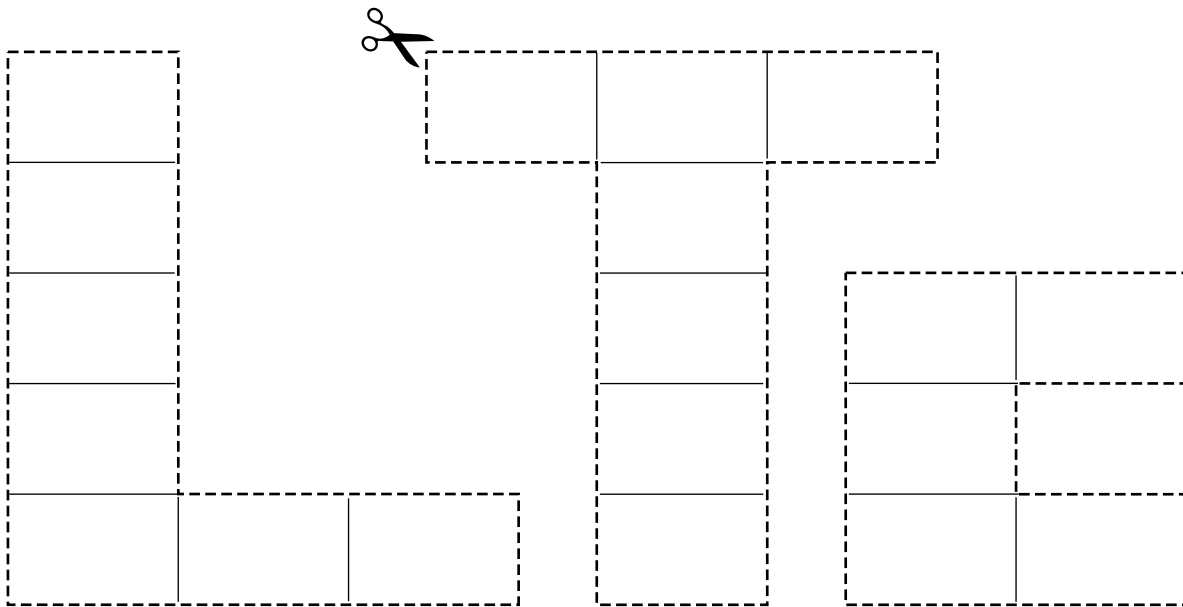
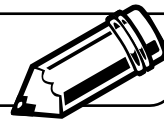
Name _____

Date _____

Time _____

LESSON
1•8

Number-Grid Pieces



12



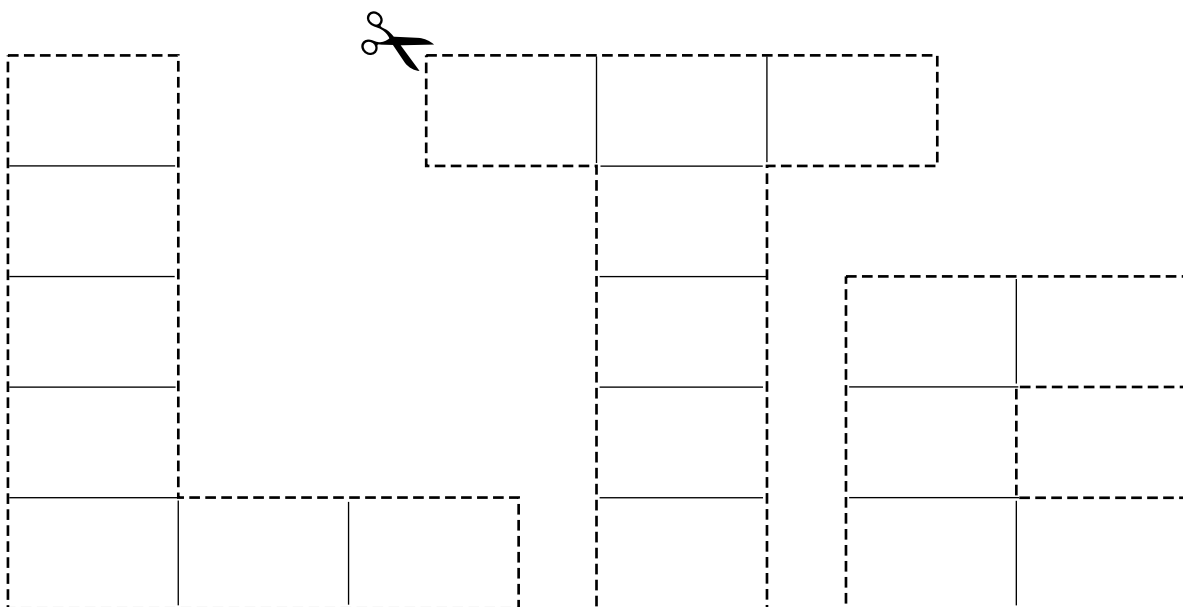
Name _____

Date _____

Time _____

LESSON
1•8

Number-Grid Pieces

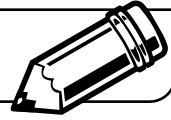


12

LESSON
1•8

Number-Grid Cutouts



LESSON
1•10**Calculator Counting**

1. Use your calculator.
2. Choose a “count by” number.
3. Enter the key sequence to start your count and press the = key three times.
4. Show your partner the calculator.
5. Slowly press the = key four times while your partner writes the display numbers on the lines.
6. Your partner then guesses your “count by” number.
7. Switch turns.

1. _____

Guess _____

2. _____

Guess _____

3. _____

Guess _____

4. _____

Guess _____

Relations: $<$, $>$, $=$



Family Note

In *Second Grade Everyday Mathematics*, children “do mathematics.” We expect that children will want to share their enthusiasm for the mathematics activities they do in school with their families. Your child will bring home assignments and activities to do as homework throughout the year. These assignments, called “Home Links,” will be identified by the house at the top right corner of this page. The assignments will not take very much time to complete, but most of them involve interaction with an adult or an older child.

There are many reasons for including Home Links in the second grade program:

- ◆ The assignments encourage children to take initiative and responsibility for completing them. As you respond with encouragement and assistance, you help your child build independence and self-confidence.
- ◆ Home Links reinforce newly learned skills and concepts. They provide opportunities for children to think and practice at their own pace.
- ◆ These assignments are often designed to relate what is done in school to children’s lives outside school. This helps tie mathematics to the real world, which is very important in the *Everyday Mathematics* program.
- ◆ The Home Links assignments will help you get a better idea of the mathematics your child is learning in school.

Generally, you can help by listening and responding to your child’s requests and comments about mathematics. You also can help by linking numbers to real life, pointing out ways in which you use numbers (time, TV channels, page numbers, telephone numbers, bus routes, shopping lists, and so on). Extending the notion that “children who are read to, read,” *Everyday Mathematics* supports the belief that children who have someone do math with them will learn mathematics. Playful counting and thinking games that are fun for both you and your child are very helpful for such learning.


Please return the **second page** of this Home Link to school tomorrow.

HOME LINK
1•11

Relations: $<$, $>$, $=$ *continued*



Family Note

This icon  will often appear on the Home Links. This icon tells children where to look in *My Reference Book* to find more information about the concept or skill addressed in the Home Link. In today's lesson, we reviewed and practiced using the $<$, $>$, and $=$ symbols. For information about relation symbols, see page 9 in *My Reference Book*.

Show someone at home your *My Reference Book*. Together find 3 things you found interesting and write them below.

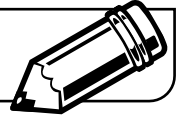
1. _____
2. _____
3. _____

Explain to someone at home how to do Problems 1–4. Then write $<$, $>$, or $=$ in each blank. Use your *My Reference Book* to look up the symbols.

1. 8 _____ 12
2. 25 _____ 18
3. 103 _____ 53
4. 79 _____ 79

Write numbers in the blanks to make up your own.

5. _____ $<$ _____
6. _____ $>$ _____

LESSON
1•12**Temperature**

Work in a group of 3 or 4 children.

- Materials**
- Class Thermometer Poster
 - quarter-sheets of paper

Directions**Activity 1**

1. Take turns. One person names a temperature. Another person shows that temperature on the Class Thermometer Poster.
2. Everyone in the group checks to see that the temperature is shown correctly.
3. Keep taking turns until each person has named a temperature and has shown a temperature on the Class Thermometer Poster.

Activity 2

1. Take turns showing a temperature on the Class Thermometer Poster. Everyone reads the thermometer and writes that temperature.
2. Everyone in the group compares the temperatures they wrote. Did everyone write the same temperature? Discuss any differences.

Follow-Up

Look at all the temperatures that you recorded on your quarter-sheets of paper.

- ◆ Were some temperatures easier to read than others? Explain.
- ◆ Order the temperatures from coldest to hottest.

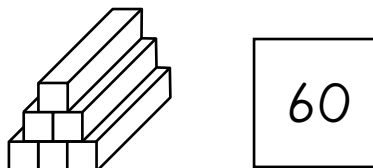
LESSON
1•12**Base-10 Structures**

Work in a group of 3 or 4 children.

- Materials** base-10 blocks (cubes, longs, and flats)
 quarter-sheets of paper

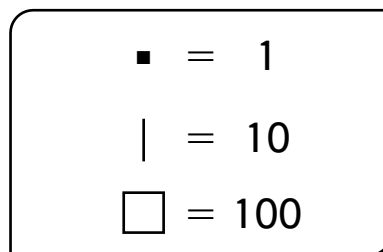
Directions

1. Each person uses base-10 blocks to make a “building.” The picture shows an example.



2. Each block has a value.

The value of the cube is 1.
 The value of the long is 10.
 The value of the flat is 100.



What number does your building show? Use the symbols in the box above to help you.

3. Draw your building on a quarter-sheet of paper. Write the number with your drawing.
 4. Have a friend help you check the number.
 5. If there is time, make more buildings. Draw each building and record the number of each building.

Follow-Up

- ◆ Look at the numbers shown by your group’s buildings.
- ◆ Order the numbers from smallest to largest.

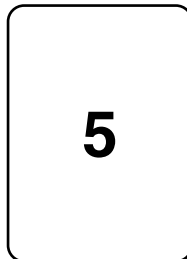
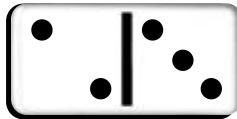
LESSON
1•12**Sorting Dominoes**

Work in a group of 3 or 4 children.

- Materials**
- 1 or 2 sets of double-9 dominoes
 - number cards 0–18 (from the Everything Math Deck, if available)

Directions

1. Lay down the number cards in order from 0 through 18.
2. Place each domino above the number card that shows the sum of the domino dots.



3. List the addition facts shown by the dominoes on a sheet of paper. Before you begin, decide how your group will record the facts.

Follow-Up

- ◆ Look at the list of addition facts your group made.
- ◆ Try to think of a better way to record the facts.
- ◆ Talk about why you think the new way is better.

Temperatures

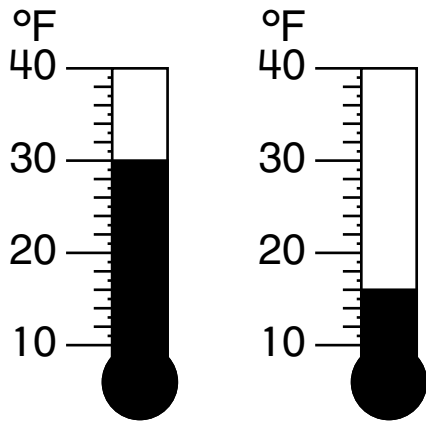
**Family Note**

In today's lesson, the class examined thermometers and practiced reading Fahrenheit temperatures. We began a daily routine of recording the outside temperature. If you have a nondigital thermometer at home (inside or outside), encourage your child to read the Fahrenheit temperatures to you. We will introduce Celsius temperatures in a later unit.

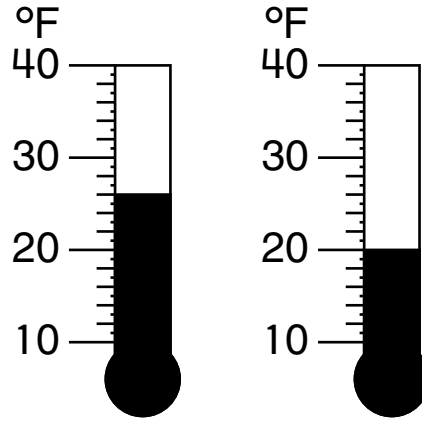
Please return this Home Link to school tomorrow.



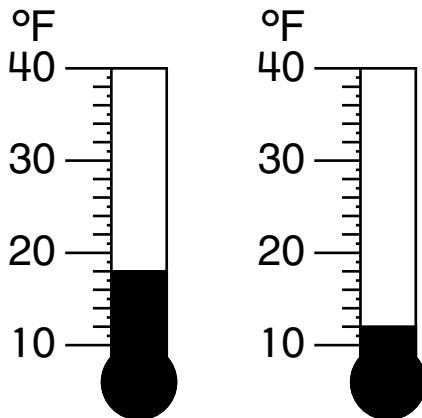
- 1.** Circle the thermometer that shows 30°F.



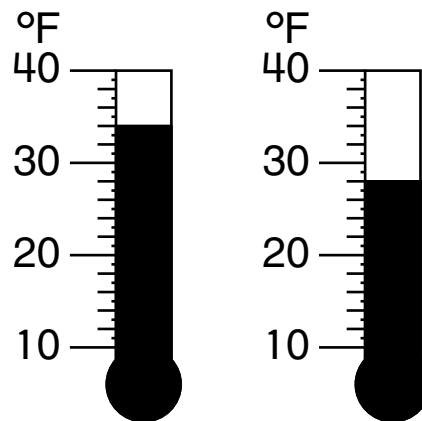
- 2.** Circle the thermometer that shows 20°F.



- 3.** Circle the thermometer that shows 12°F.



- 4.** Circle the thermometer that shows 28°F.



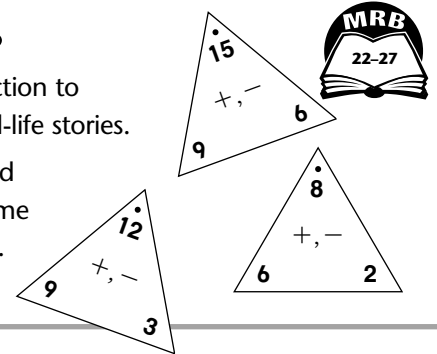
Unit 2: Family Letter



Addition and Subtraction Facts

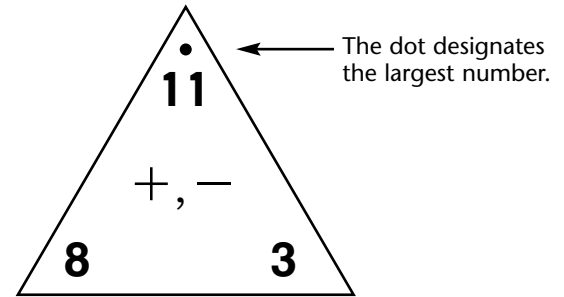
Unit 2 focuses on reviewing and extending addition facts and linking subtraction to addition. Children will solve basic addition and subtraction facts through real-life stories.

In *Everyday Mathematics*, the ability to recall number facts instantly is called “fact power.” Instant recall of the addition and subtraction facts will become a powerful tool in computation with multidigit numbers, such as $29 + 92$.



Math Tools

Your child will be using **Fact Triangles** to practice and review addition and subtraction facts. Fact Triangles are a “new and improved” version of flash cards; the addition and subtraction facts shown are made from the same three numbers, helping your child understand the relationships among those facts. The Family Note on Home Link 2-7, which you will receive later, provides a more detailed description of Fact Triangles.



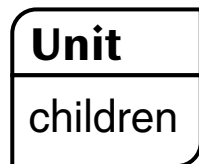
A Fact Triangle showing the fact family for 3, 8, and 11

Vocabulary

Important terms in Unit 2:

label A unit, descriptive word, or phrase used to put a number or numbers in context. Using a label reinforces the idea that numbers always refer to something.

unit box A box that contains the label or unit of measure for the numbers in a problem. For example, in number stories involving children in the class, the unit box would be as follows:



A unit box allows children to remember that numbers have a context without having to repeat the label in each problem.

number story A story involving numbers made up by children, teachers, or parents. Problems from the story can be solved with one or more of the four basic arithmetic operations.

number model A number sentence that shows how the parts of a number story are related. For example, $5 + 8 = 13$ models the number story: “5 children skating. 8 children playing ball. How many children in all?”

fact power The ability to instantly recall basic arithmetic facts.

doubles fact The sum or product of the same two 1-digit numbers, such as $2 + 2 = 4$ or $3 \times 3 = 9$.

turn-around facts A pair of addition (or multiplication) facts in which the order of the addends (or factors) is reversed, such as $3 + 5 = 8$ and $5 + 3 = 8$ (or $3 \times 4 = 12$ and $4 \times 3 = 12$). If you know an addition or multiplication fact, you also know its turn-around fact.

fact family A collection of four addition and subtraction facts, or multiplication and division facts, relating three numbers. For example, the addition/subtraction fact family for the numbers 2, 4, and 6 consists of:

$$2 + 4 = 6 \quad 4 + 2 = 6$$

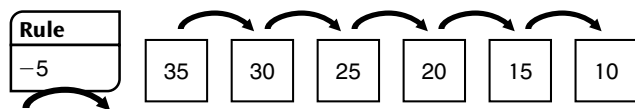
$$6 - 4 = 2 \quad 6 - 2 = 4$$

The multiplication/division fact family for the numbers 2, 4, and 8 consists of:

$$2 \times 4 = 8 \quad 8 \div 2 = 4$$

$$4 \times 2 = 8 \quad 8 \div 4 = 2$$

Frames-and-Arrows diagram A diagram used to represent a number sequence, or a list of numbers ordered according to a rule. A Frames-and-Arrows diagram has frames connected by arrows to show the path from one frame to the next. Each frame contains a number in the sequence; each arrow represents a rule that determines which number goes in the next frame.

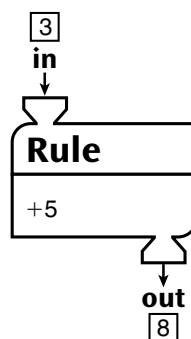


“What’s My Rule?” problem A problem in which number pairs are related to each other according to a rule or rules. A rule can be represented by a **function machine**.

in	out
3	8
5	10
8	13

“What’s My Rule?” table

Function machine In *Everyday Mathematics*, an imaginary device that receives input numbers and pairs them with output numbers according to a set rule.



Do-Anytime Activities

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

1. Talk with your child about why it is important to learn basic facts.
2. Create addition and subtraction stories about given subjects.
3. Have your child explain how to use a facts table.
4. As you discover which facts your child is having difficulty mastering, make a Fact Triangle using the three numbers of that fact family.
5. Name a number and ask your child to think of several different ways to represent that number. For example, 10 can be represented as $1 + 9$, $6 + 4$, $12 - 2$, and so on.

10	
ten	$12 - 2$
$1 + 9$	$6 + 4$
diez	$10 - 0$



Building Skills through Games

In Unit 2, your child will practice addition facts and find equivalent names for numbers by playing the following games.

Beat the Calculator

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



Domino Top-It

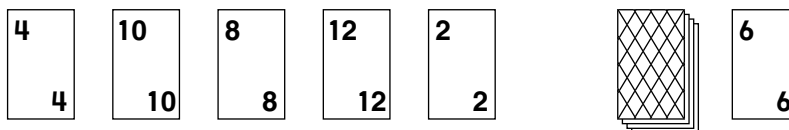
Each player turns over a domino and finds the total number of dots. The player with the larger total then takes both dominoes from that round.

Doubles or Nothing

Each player adds numbers across each row, down each column, and along each diagonal in a grid for each round, circles identical sums, and finds the total of doubles as a score for the round.

Name That Number

Each player turns over a card to find a number that must be renamed using any combination of five faceup cards.



$$6 = 8 - 2$$

$$6 = 10 - 4$$

$$6 = 4 + 2$$


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 2•1

2. 8 3. 18 4. 7 5. 16

Home Link 2•2

	2	0	5	1	2	3	1	3	4	1
	+4	+0	+4	+4	+5	+2	+9	+6	+4	+1
	6	0	9	5	7	5	10	9	8	2
	2	3	5	1	9	0	2	7	3	2
	+0	+5	+1	+4	+2	+7	+3	+2	+2	+4
	2	8	6	5	11	7	5	4	9	7
	6	1	5	0	4	0	1	4	5	4
	+2	+6	+5	+6	+3	+5	+8	+6	+3	+0
	8	7	10	6	7	5	9	10	8	4
	0	6	8	9	3	7	2	1	5	6
	+8	+6	+2	+0	+3	+1	+6	+3	+2	+1
	8	12	10	9	6	8	8	4	7	4
	2	2	6	6	0	4	6	0	5	1
	+1	+9	+2	+4	+1	+2	+3	+2	+1	+2
	3	11	8	10	1	6	9	2	6	3
	4	7	6	9	1	0	1	1	7	0
	+5	+0	+2	+3	+5	+9	+7	+5	+6	+5
	9	7	8	12	6	9	8	6	10	6
	9	8	6	8	1	6	3	0	3	3
	+1	+0	+2	+3	+0	+0	+3	+3	+8	+7
	10	8	8	11	1	6	6	3	11	10


Home Link 2•3

1. a. 4 b. 10 c. 0 d. 14 e. 6
 f. 16 g. 12 h. 18 i. 2 j. 8
 3. a. 9 b. 9 c. 17 d. 13 e. 5
 f. 15 g. 11

Home Link 2•4

1. a. 7 b. 11 c. 7 d. 7 e. 11 f. 7
 2. a. 8 b. 5 c. 6 d. 3 e. 7 f. 9
 3. a. 11 b. 15 c. 16 d. 10 e. 14 f. 15
 g. 17 h. 14 i. 18 j. 16 k. 13 l. 17

Home Link 2•5

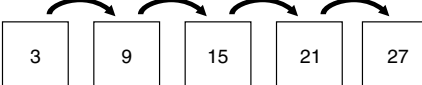
	2	2	1	0	5	3	7	4	1	4
	+6	+5	+6	+8	+7	+9	+0	+4	+5	+3
	8	7	7	8	12	12	7	8	6	7
	2	6	1	3	6	1	8	5	2	3
	+7	+5	+7	+5	+9	+1	+2	+3	+4	+3
	9	11	8	8	9	10	8	6	6	15
	4	5	9	0	4	7	5	8	5	6
	+4	+4	+3	+3	+6	+1	+5	+0	+9	+7
	8	9	12	9	10	8	10	8	14	13
	6	3	7	9	5	4	2	4	4	1
	+2	+6	+4	+2	+3	+4	+9	+8	+9	+1
	8	11	11	11	8	8	11	12	13	2
	3	6	8	7	7	6	7	3	4	6
	+4	+6	+4	+5	+0	+2	+6	+6	+7	+8
	7	12	12	12	7	8	10	9	11	14
	8	3	4	5	1	3	6	5	8	7
	+5	+6	+7	+2	+6	+5	+7	+7	+3	+7
	13	9	11	7	7	8	13	12	11	14
	6	8	2	7	4	1	0	3	4	6
	+1	+4	+6	+7	+2	+4	+7	+9	+5	+4
	7	12	8	14	6	5	7	12	9	10


Home Link 2•6


2. $9 + 6 = 15$; $6 + 9 = 15$; $15 - 6 = 9$; $15 - 9 = 6$
 3. $8 + 7 = 15$; $7 + 8 = 15$; $15 - 7 = 8$; $15 - 8 = 7$
 4. $5 + 9 = 14$; $9 + 5 = 14$; $14 - 9 = 5$; $14 - 5 = 9$
 5. 13 6. 14 7. 12 8. 16

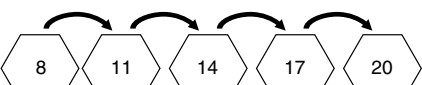
Home Link 2•10

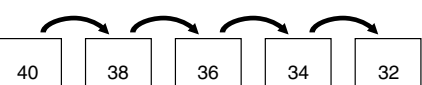
- Rule: +6



- Rule: -3


- Rule: +5


- Rule: +3


- Rule: -2


- Rule: +10



Home Link 2•11

- Rule: +9

in	out
1	10
4	13
6	15
8	17
5	14
- Rule: -8

in	out
10	2
12	4
9	1
14	6
8	0
- Rule: +6

in	out
4	10
6	12
3	9
9	15
0	6
- Rule: +5

in	out
8	13
4	9
13	18
5	10
Answers vary.	

5. 18; 5