

# Teaching Masters and Home Link Masters



Name \_\_\_\_\_ Date \_\_\_\_\_

**LESSON 3-9 Adding on the Number Grid**

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

- Start at 25. Count up 3. Where do you end up?  
\_\_\_\_\_  $25 + 3 =$  \_\_\_\_\_
- Start at 19. Count up 6. Where do you end up?  
\_\_\_\_\_  $19 + 6 =$  \_\_\_\_\_
- Start at 38. Count up 2. Where do you end up?  
\_\_\_\_\_  $38 + 2 =$  \_\_\_\_\_
- Start at 57. Count up 10. Where do you end up?  
\_\_\_\_\_  $57 + 10 =$  \_\_\_\_\_

**Try This**

5.  $29 + 20 =$  \_\_\_\_\_      6.  $25 + 15 =$  \_\_\_\_\_

76

Name \_\_\_\_\_ Date \_\_\_\_\_

**HOME LINK 2-12 Telling Time**

**Family Note** Use the paper clock that your child brought home several days ago to help your child practice telling time. (Your child may need some review.) If you no longer have the paper clock, use a small real clock instead.  
*Please return this Home Link to school tomorrow.*

- Record the time.
 

\_\_\_\_\_ o'clock

\_\_\_\_\_ o'clock
- Draw the hour hand.
 

9:00

6:00

**Practice**

- How much money?  
 \_\_\_\_\_c

45

# Unit 1: Family Letter



## Introduction to *First Grade Everyday Mathematics*

Welcome to *First Grade Everyday Mathematics*. It is part of an elementary school mathematics curriculum developed by the University of Chicago School Mathematics Project (UCSMP). *Everyday Mathematics* offers children a broad background in mathematics.

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

### **A problem-solving approach based on**

**everyday situations** By making connections between their own knowledge and experiences, children learn basic skills in meaningful contexts so that mathematics becomes "real."

### **A variety of formats for frequent**

**practice of basic skills** Instead of practice presented only in a tedious drill format, children practice basic skills in a variety of engaging ways. In addition to completing daily mixed practice pages, finding patterns on the number grid, and working with addition and subtraction fact families, children will play games designed to develop basic skills.

### **An instructional approach that revisits concepts**

**regularly** To enhance the development of basic skills and concepts, children revisit previously learned concepts and practice skills encountered earlier. The lessons take advantage of previously learned concepts and skills and build on them throughout the year.

### **A curriculum that explores mathematical content**

**beyond basic arithmetic** Mathematics standards in the United States, as well as around the world, indicate that basic arithmetic skills are only the beginning of the mathematical knowledge children will need. In addition to basic arithmetic, *First Grade Everyday Mathematics* emphasizes the topics discussed on the following page.



- ◆ **Number and Numeration** Counting; reading and writing numbers; investigating place value of whole numbers; exploring fractions and money
- ◆ **Operations and Computation** Learning addition and subtraction facts, fact families, and extended facts; beginning informal work with properties of numbers and problem solving
- ◆ **Data and Chance** Collecting, organizing, and displaying data using tables, charts, and graphs
- ◆ **Measurement and Reference Frames** Using tools to measure length, capacity (quarts, liters), and weight; using clocks, calendars, timelines, thermometers, and ordinal numbers such as *fifth* and *tenth*
- ◆ **Geometry** Exploring 2-dimensional shapes (squares, triangles, rectangles) and 3-dimensional shapes (pyramids, cones, prisms)
- ◆ **Patterns, Functions, and Algebra** Exploring attributes, patterns, sequences, relations, and functions; finding missing numbers and rules in problems; studying properties of operations (addition and subtraction)

*Everyday Mathematics* will provide you with ample 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 your child will be studying in each unit.

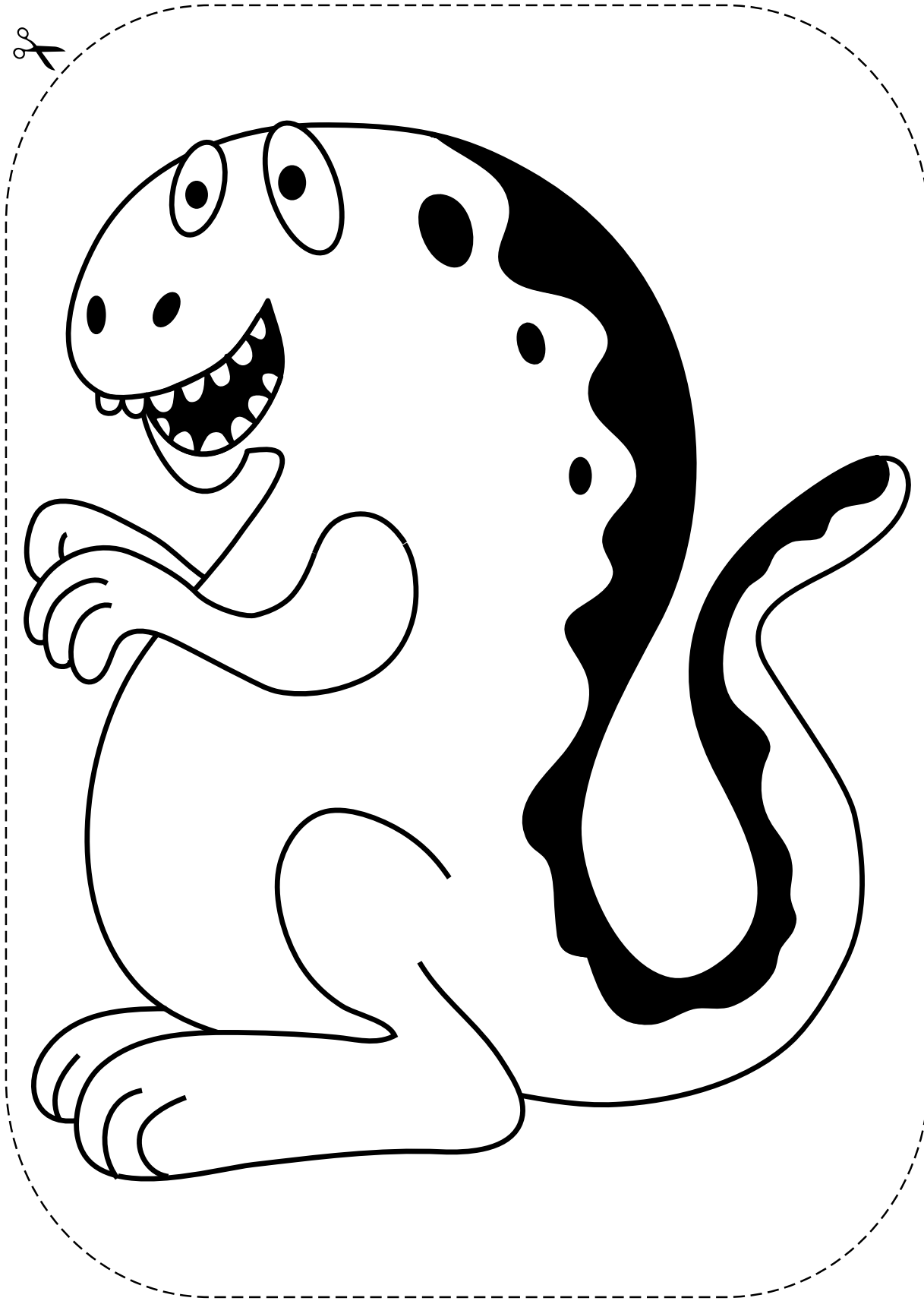
You will enjoy seeing your child's confidence and comprehension soar as he or she connects mathematics to everyday life.

We look forward to an exciting year!



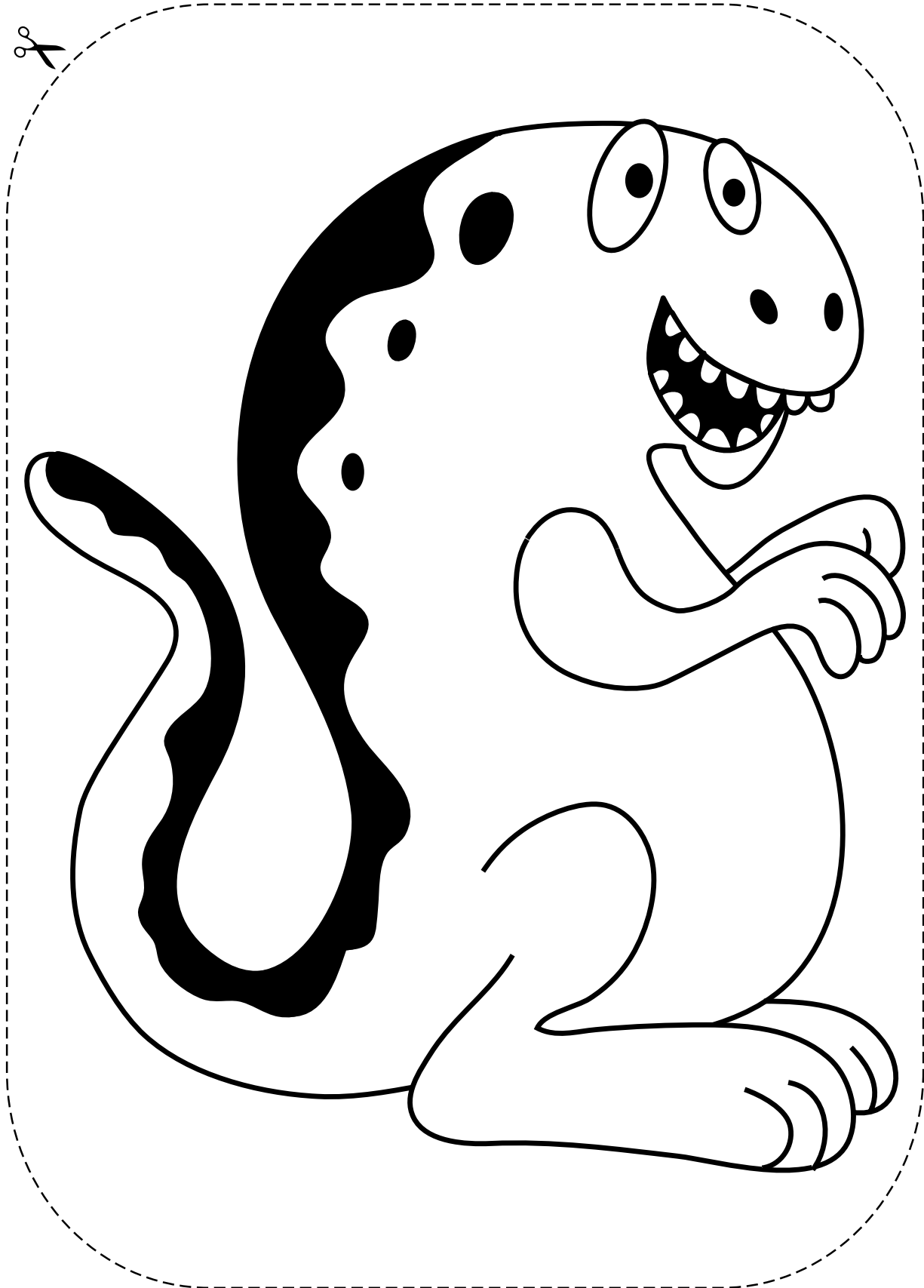
**LESSON**  
**1•2**

**Monster Squeeze Monster (right)**



**LESSON**  
**1•2**

**Monster Squeeze Monster (left)**





## Unit 1: Establishing Routines

One purpose of this first unit is to help children become comfortable with a cooperative-learning environment in which they work together to build mathematical concepts. Another purpose is to introduce and establish routines that will be used this year and in the grades to come. This unit also reviews various mathematical concepts introduced in Kindergarten.

In Unit 1, children will review counting by 1s, 2s, 5s, and 10s. They will have opportunities to count and record numbers of various objects, such as hands, fingers, eyes, and ears. In addition, they will use pennies to count money, practice writing numbers, and begin to use a thermometer.

## Vocabulary

Important terms in Unit 1:

**Home Link** A suggested follow-up or enrichment activity to be done at home. Each Home Link activity is identified by the following symbol:

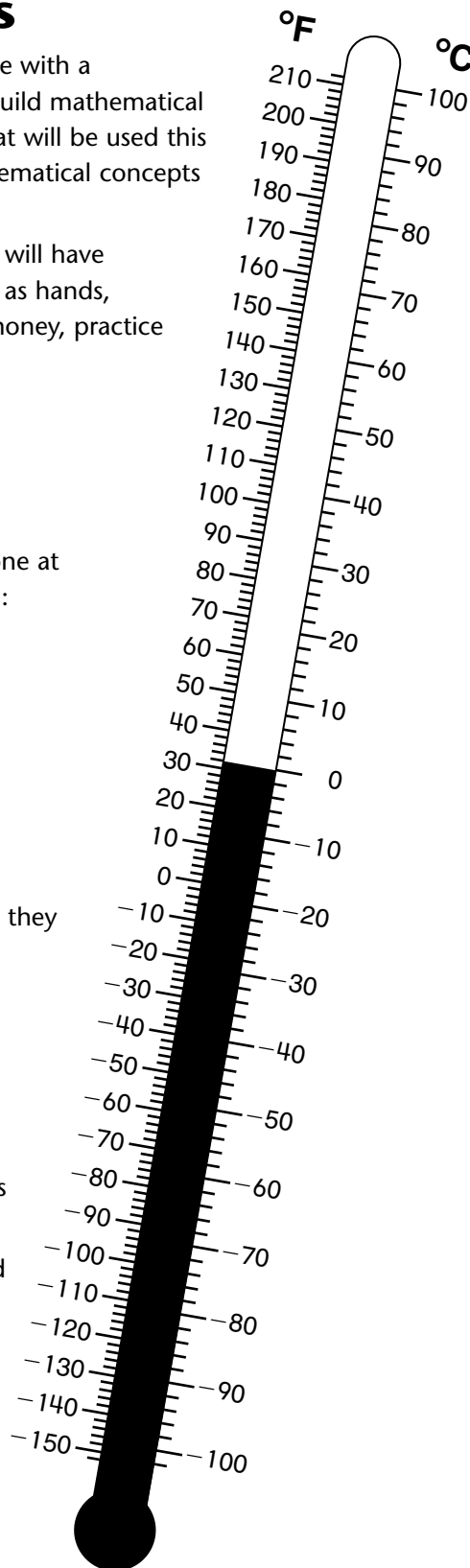


**tally** A mark used in a count. Tallies let children represent numbers they can count and say, but cannot yet write.

### is the tally count  
for the number 8.

**temperature** How hot or cold something is relative to another object or as measured on a standardized scale such as degrees Celsius or degrees Fahrenheit.

**tool kit** A bag or box containing a calculator, measuring tools, and manipulatives often used by children in *Everyday Mathematics*.



## Do-Anytime Activities

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

- Count orally by 2s, 5s, and 10s when doing chores or riding in the car. Occasionally count down, or back; for example: 90, 80, 70, 60, ....
- Take inventories around the house and while shopping. Have your child keep track of each count using tally marks.

For example, count food items and nonfood items bought at the grocery store:


  
 food items                      nonfood items

- Listen to and discuss weather reports with your child.

## 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 the Home Links for Unit 1.

### Home Link 1•9

- Other possible answers include: TV listings, food packages (expiration dates), and clocks.
- 1, 2, 3, 4, 5, 6

### Home Link 1•10

- Sample answer:

Number	Tally Marks
4	
7	###
12	### ###
16	### ### ###
19	### ### ###

- 1; 2; 4; 6; 8; 9

### Home Link 1•11

- Drawing should be of a Math Exploration.
- 4      3. 7      4. 11

### Home Link 1•12

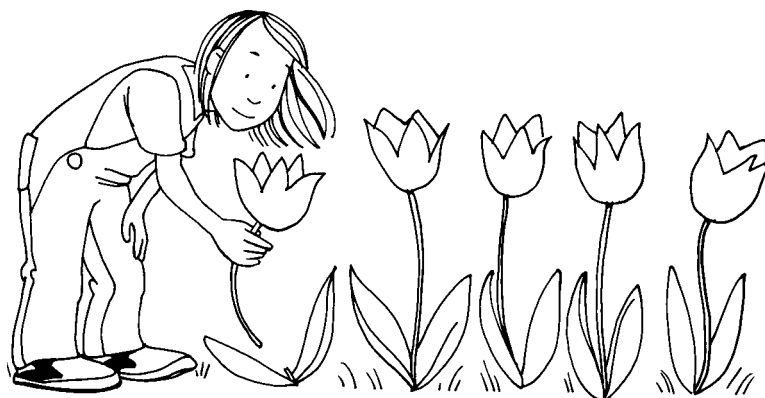
- Other possible answers include: oven, refrigerator, freezer, and thermostat.
- 5      4. 3      5. 2

### Home Link 1•13

- Your child should draw a group of objects.
- Sample number story: There are 5 flowers in the garden. If I pick 1 of them to give to my teacher, how many flowers will be left? Answer: 4 flowers

NOTE: Encourage your child to come up with his or her own way to solve the problem, whether it's thinking logically, drawing pictures, or counting on fingers. As an adult, you know that  $5 - 4 = 1$ , but for your child, coming up with his or her own strategy is more natural than thinking of the number story as  $5 - 4 = 1$ .

- 6      5. 9      6. 15
7. 1      8. 4      9. 10

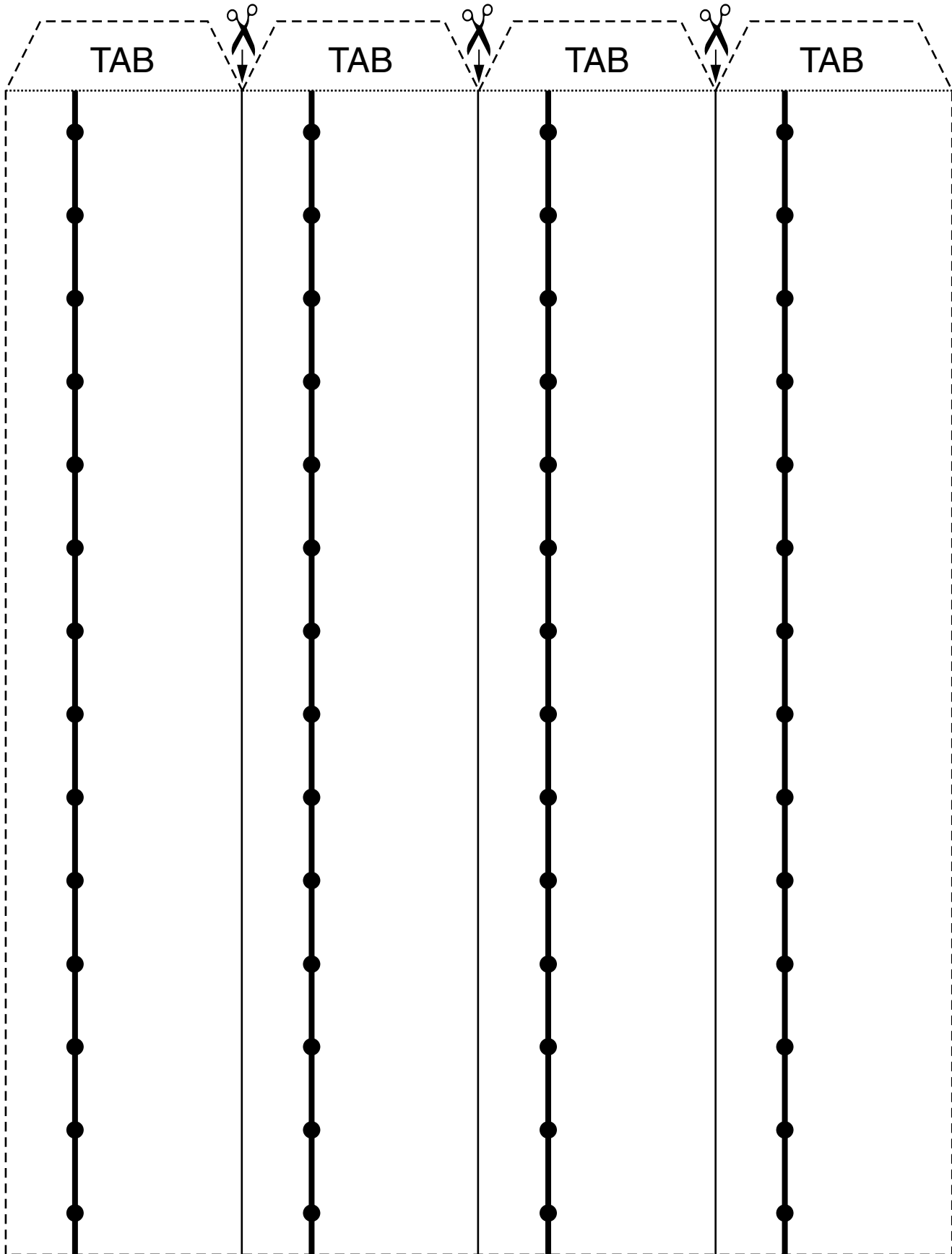


**LESSON**  
**1•3**

# Number-Line Sections



TAB      TAB      TAB      TAB





**LESSON**  
**1•6**

# A Connect-the-Dots Picture



# Numbers Are Everywhere

**Family Note**

Your child will bring home assignments called "Home Links." The assignments will not take much time to complete, but most of them involve interaction with an adult or an older child.

There are good reasons for including Home Links in the first-grade program:

- ◆ The assignments encourage children to take initiative and responsibility. 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 thinking and practice time at each child's own pace.
- ◆ These assignments relate the mathematics your child is learning to the real world, which is very important in the *Everyday Mathematics* program.
- ◆ Home Links will give you a better idea of what mathematics your child is learning.

Listen and respond to your child's comments about mathematics. Point out ways in which you use numbers (time, TV channels, page numbers, telephone numbers, bus routes, shopping lists, and so on). *Everyday Mathematics* supports the belief that children who have someone do math with them, learn math. Fun counting and thinking games that you and your child play together are very helpful for such learning.

**For this first Home Link**, your child might look for a newspaper ad for grocery items, a calendar page, or a picture of a clock. The purpose of this activity is to expand your child's awareness of numbers in the world.

*Please return this Home Link to school tomorrow.*

Cut examples of numbers from scrap papers you find at home.

Glue some examples on the back of this page.

Bring examples that will not fit on this page to school.

Do not bring anything valuable!



# Tally Marks


**Family Note**

Remind your child that the fifth tally mark crosses the other four, as follows: *||||*.

Counting on is an important skill that children practice whenever they count tally marks. Check that your child first counts by 5s for groups of 5 tallies and then counts by 1s. For example, *|||| |||* should be counted as 5, 10, 15, 16, 17, 18. Developing this skill will take some practice.

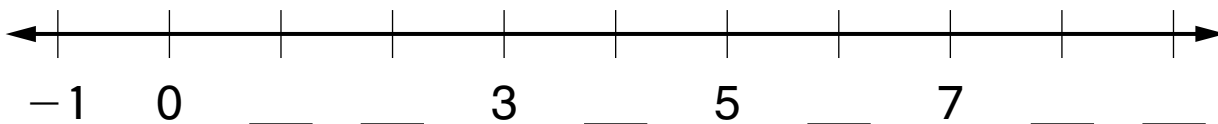
*Please return this Home Link to school tomorrow.*

1. Write 5 numbers. Make tally marks for each number.

Number	Tally Marks
18	<i>        </i>

**Practice**

2. Fill in the missing numbers on this number line.



**HOME LINK**  
**1•11**

# Explorations



**Family Note** Time is set aside regularly in *First Grade Everyday Mathematics* for Exploration activities that involve children in data collecting, problem solving, familiarization with math manipulatives, and games in independent and small-group settings. Children will have the opportunity to participate in several activities during each Exploration session. Please ask your child about our class's mathematics Explorations.

*Please return this Home Link to school tomorrow.*

1. Tell someone at home about your favorite mathematics Exploration. Draw something you did in your Explorations today.

## Practice

Write each number.

2.  $////$  \_\_\_\_\_

3.  $###$   $||$  \_\_\_\_\_

4.  $###$   $###$   $|$  \_\_\_\_\_

**HOME LINK**  
**1•12**

# Thermometers



**Family Note** Objects that show temperatures might be kitchen items (such as a meat thermometer) or health care items (such as a heating pad). These items do not need to show degrees Fahrenheit—they may have their own temperature gauges showing levels of heat or cold.

*Please return this Home Link to school tomorrow.*

**1.** Look for thermometers in your home.

I found \_\_\_\_\_ thermometers in my home.

**2.** Do a temperature hunt. Ask someone at home to help you find other things that show temperatures.

**a.** Draw some of the things you find.

**b.** Write the name for each of your drawings.  
Have someone at home help you.

## Practice

Write how many dots.

**3.**  \_\_\_\_\_

**4.**  \_\_\_\_\_

**5.**  \_\_\_\_\_

**HOME LINK**  
**1•13**

## Number Stories



**Family Note** “Number story” is another name for what is traditionally called a “story problem” or a “word problem.” *Everyday Mathematics* uses the term “number story” to emphasize the fact that the story must involve numbers.

*Please return this Home Link to school tomorrow.*

1. Find or draw a picture of a group of things, such as animals, people, flowers, or toys.

Have someone at home help you.

2. Tell a number story about your picture to someone at home.
3. Then glue or tape your picture to this page.

### Practice

Write the number that comes before each number.

4. \_\_\_\_\_ 7

5. \_\_\_\_\_ 10

6. \_\_\_\_\_ 16

7. \_\_\_\_\_ 2

8. \_\_\_\_\_ 5

9. \_\_\_\_\_ 11



## Everyday Uses of Numbers

In Unit 2, children will learn about three specific uses of numbers in real-world contexts: the use of numbers in telephone numbers, in telling time, and in counting money. Your child will learn how to interpret the various parts of a telephone number, how to tell time on the hour, and how to count collections of nickels and pennies.

When learning to tell time, your child will estimate the time on a clock that has no minute hand, only an hour hand. For example, when the hour hand is pointing exactly to the 4, we can say that the time is *about 4 o'clock*. When the hour hand is between the 4 and the 5, we can say that the time is *after 4 o'clock* or *between 4 and 5 o'clock*. By focusing on the hour hand, children will avoid the common mistake of giving the wrong hour reading (usually one hour off).



about 4 o'clock



between 4 o'clock and 5 o'clock

When learning to count money, it is preferred that your child use real coins. In Unit 2, the focus will be on counting nickels and pennies and on exchanging pennies for nickels. (In Unit 3, children will add dimes to their coin collections. Later, they will add quarters.)

Your child will also continue to develop counting skills with the help of a number grid, begin to do simple addition and subtraction problems, and continue to solve number stories.

**Please keep this letter for reference as your child works through Unit 2.**

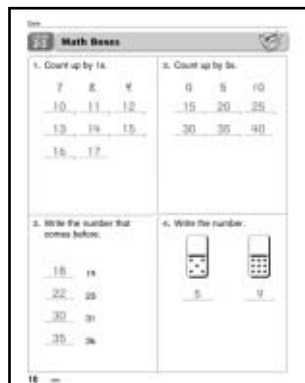
## Vocabulary

Important terms in Unit 2:

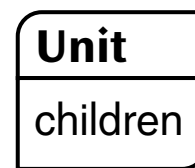
### Numbers All Around

**Museum** A routine that promotes number awareness and is used throughout the year as the class assembles examples of numbers used at home.

**Math Boxes** A collection of problems to practice skills.



**unit box** A box displaying a unit, or label, in the problems at hand. For example, in problems involving counts of children in the class, the unit box would be as shown on the right.



**analog clock** A clock that shows the time by the positions of the hour and minute hands.



**digital clock** A clock that shows the time with numbers of hours and minutes, usually separated by a colon.





## Do-Anytime Activities

To work with your child on the concepts taught in this unit and in Unit 2, try these interesting and rewarding activities:

1. Point out common uses of numbers, such as the numbers on clocks, phones, and in house addresses.
2. Help your child estimate the time using only the hour hand on an analog clock.
3. Help your child practice saying the telephone numbers of relatives and friends.
4. Count various sets of nickels and pennies together.

Have fun with these and all other mathematics activities!

## Building Skills through Games

In Unit 2, your child will practice numeration and money skills by playing the following games:

### ***Rolling for 50***

Players roll a die to navigate their way on the number grid. The first player to reach FINISH wins the game!

### ***Top-It***

Each player turns over a card from the deck. Whoever has the higher number card keeps both cards. The winner is the one with more cards when the whole deck has been turned over.

### ***Penny Plate***

Starting with a plate and a specified number of pennies, one player turns the plate upside down, hiding some of the pennies. The other player counts the visible pennies and guesses how many pennies are hidden under the plate.

### ***Penny-Nickel Exchange***

Partners put 20 pennies and 10 nickels in a pile. Each player rolls a die and collects the number of pennies shown on the die. Whenever players have at least 5 pennies, they say "Exchange!" and trade their pennies for a nickel. The game ends when there are no more nickels left. The player with more nickels wins.

### ***High Roller***

Players roll two dice and keep the die with the greater number (the "high roller"). Players roll the other die again and count on from the "high roller" to get the sum of the two dice.



5, 6, 7  
The sum is 7.

# 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 the Home Links for Unit 2.

## Home Link 2•1

- 1–3. Check that your child’s information is correct.  
4. 11    5. 18    6. 20    7. 7

## Home Link 2•2

1. Check that your child can count by 1s to the number he or she wrote.  
2. Sample answer: 50, 40, 30, 20, 10, 0  
3. Sample answer: I can count squares from left to right as I count by 1s. To count by 10s, I can start at the top of the last column and move down.  
4. 9, 6, 5, 4, 2, 1

## Home Link 2•3

1. Sample answers:

Number of Pennies in One Hand	Number of Pennies in Other Hand
5	5
4	6
2	8

2.

Number of Pennies in One Hand	Number of Pennies in the Other Hand
8	7
9	6
12	3

3. 20, 25, 30

## Home Link 2•4

1. Sample answer:

Before	Number	After
8	9	10
2	3	4
0	1	2
4	5	6
5	6	7
8	9	10
10	11	12

2. 7, 8, 9, 10

## Home Link 2•5

1. Sample answer:

	Tallies
Clocks	///
Watches	### //

Total: 10

2. Check that your child drew a picture of a clock or watch in your home.  
3. 11    4. 15    5. 3

## Home Link 2•6

1. Check that your child shows the hour named on his or her clock.

2. 5; 9

3.



4. ### //    5. ### ### ///    6. ### ###

# 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 the Home Links for this unit.

## Home Link 2•7

- 6, 5, 8, 7, 10, 9
- Your child's drawing should have the dominoes in order from 5 through 10.
- 5, 6, 7, 8, 9, 10      4. 0, 2
- 9, 10, 11                  6. 16, 17, 18

## Home Link 2•8

- 5; 10; possible answer: I counted the pennies to get 5, and then counted 5 more to get 10.
- ### ### ### ### ### ||
- ### ### ### ### ### ### ###
- ### ### ### ||
- ### ### ### ### ### ### ### ### |

## Home Link 2•9

- Sample answer: 5, 10, 15, 20, 25, 30; 30
- 15      3. 32
- Check that your child's tally marks match his or her number.
- 10      6. 21      7. 18      8. 5

## Home Link 2•10

- (N)(N)(P) or (N)(P)(P)(P)(P)(P)(P); 11
- (N)(N)(P); 11
- 8      4. 30      5. 43      6. 17

## Home Link 2•11

- 17; 16; Sabine      2. 16; 20; Tony      3. 15

## Home Link 2•12

- 8; 11

2.



- 21

## Home Link 2•13

Check that your child has both nickels and pennies.

- Sample answer:  
2 pennies = 2¢      3 nickels = 15¢
- Sample answer: 17¢
- Sample answer: Toy car and pencils are circled.  
a. Sample answer: pencils      b. 4¢
- Sample answers:

