Unit 4: Family Letter

Home Link 3-12

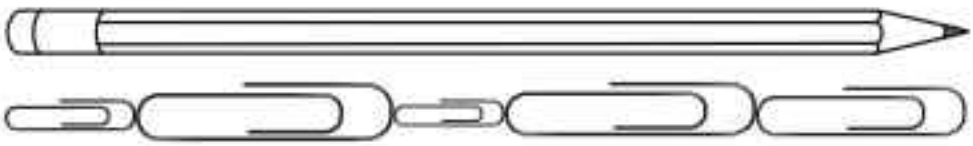
NAME DATE

Length and Addition Facts

Two ideas are emphasized in Unit 4: length measurement and addition fact fluency.

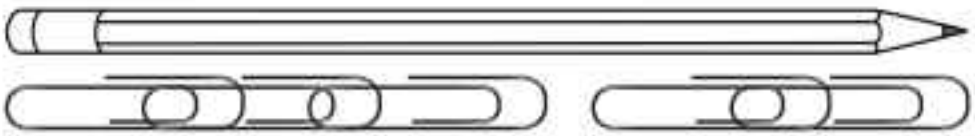
Children begin the unit by directly comparing the lengths of two objects. Then they compare the lengths of two objects indirectly by using a third object, such as a piece of string. Later children learn to measure length using nonstandard units like paper clips.

They learn that measurement units must be the same size.



Using different-size units does not provide an accurate measurement.

They also learn that the units must be arranged without gaps or overlaps.



Measuring with gaps and overlaps does not provide an accurate measurement.

Correct measures use same-size units with no gaps and overlaps.

The pencil is about 4 paper clips long.

Also in this unit, children transition from displaying data in tally charts to displaying data in bar graphs. Their work with comparing lengths will help them interpret data by comparing the lengths of the bars in the graphs.

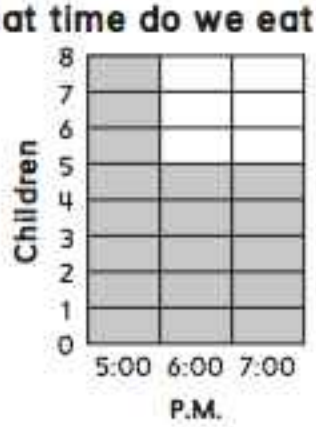
Other lessons in Unit 4 focus on addition facts. One of the Grade 1 standards requires children to fluently add and subtract within 10. In order to achieve fluency, they must be efficient at recalling these facts and using the facts in a variety of situations. Doubles and combinations of 10 are some of the easiest facts for children to remember and are emphasized in Unit 4. Once children learn these facts, they can use them to help figure out other facts. Fact fluency is emphasized and developed throughout the year, so do not worry if your child does not achieve this goal right away.

In Unit 4, children also begin developing strategies for adding more than two numbers and using place value to mentally add or subtract 10 from other 2-digit numbers.

Vocabulary

Important terms in Unit 4:

bar graph A graph with bars that represent data.



addition facts Two numbers from 0 to 10 and their sum, such as $9 + 7 = 16$.

combinations of 10 Addition facts in which the numbers add to 10. For example, $4 + 6 = 10$ and $3 + 7 = 10$ are combinations of 10.

doubles Addition facts in which both numbers being added are the same. For example, $4 + 4 = 8$ and $9 + 9 = 18$ are doubles.

helper fact A fact you know well that can be used to help solve a fact you do not know well.

Do-Anytime Activities

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

1. Measure flat objects in your home using paper clips. For example, you might measure the length of your mobile phone, the width of a small table, or the length of a spoon. Work with your child to place the paper clips end-to-end, without gaps or overlaps.
2. Use your fingers to help your child practice finding combinations of 10. For example, show both hands with 2 fingers up and the rest closed. Your child should tell you that you have 2 fingers up and 8 fingers down. Continue with different finger combinations. You can also practice doubles facts this way by placing a number of fingers up, and asking your child to tell you double that number of fingers.
3. Draw a bar graph like the one shown above, but list three activities your child likes to do after school along the bottom, such as play with friends, ride bikes, and read. Have your child keep track of the number of times he or she does each activity in a given week. For example, if your child comes home and plays with friends, he or she should color up to the number 1 above "play with friends" on the bar graph. At the end of the week, discuss which activity your child did most often and least often.

Building Skills through Games

Below are some of the games your child will play in Unit 4:

Fishing for 10

Each player draws 5 number cards. The object is to "fish for" pairs that add to 10.

Roll and Record Doubles

Each player rolls a die, doubles the number that was rolled, and records the total on a chart. The game ends when one column of the chart is filled.

What's Your Way?

Players take turns mentally finding 10 more and 10 less than a given number and sharing their strategies for doing so.

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 4-1

1–2. Answers vary.

3. Sample answer: No. Everything in Problem 1 is longer than the string, so the things in Problem 1 are longer than the things in Problem 2.

4. 9; 9 dots on the left side of the domino

Home Link 4-2

1–4. Answers vary. **5.** 55

Home Link 4-3

1–3. Answers vary.

4. 13 **5.** 14 **6.** 12 **7.** 16

Home Link 4-4

1–3. Answers vary. **4.** 12; $5 + 7 = 12$

Home Link 4-5

1. Answers vary. **2.** 7; $3 + 4 = 7$

Home Link 4-6

1. 5 **2.** 4 **3.** Before bedtime; 2

4. 11, 13, 15, 17, 19

Home Link 4-7

1–4. Answers vary.

Home Link 4-8

1. Answers vary. **2.** 6 pennies

Home Link 4-9

1–4. Answers vary. **5.** 17; $9 + 8 = 17$

Home Link 4-10

1–2. 14; Answers vary. **6.** 11, 10

3–5. 17; Answers vary.

Home Link 4-11

1. 33 **2.** 13 **3.** 48 **4.** 28

5. 12; $8 + 4 = 12$

Family Letter

Home Link 4-8

NAME DATE

Addition and Subtraction Facts in *First Grade Everyday Mathematics*

In Unit 4, children are formally introduced to addition facts, defined as two numbers from 0 to 10 and their sums, such as $9 + 7 = 16$. Subtraction problems using the same numbers, such as $16 - 7 = 9$ and $16 - 9 = 7$, are known as subtraction facts, which will be formally introduced later in first grade. Learning addition and subtraction facts is a major focus of first grade mathematics. Future work with addition and subtraction builds on these basic facts, and many strategies children develop for solving their basic facts can later transfer to computation with larger numbers. *Everyday Mathematics* supports children's progress toward fluency with addition and subtraction facts by encouraging children to do the following:

- Put numbers together and take them apart flexibly, for example, by seeing that 8 is the same as $6 + 2$, $4 + 4$, $3 + 5$, and so on.
- Discover and compare efficient strategies for solving basic facts.
- Practice basic facts in meaningful ways, through number stories, Quick Looks with ten frames, and games.

Knowing doubles ($2 + 2$, $3 + 3$, $4 + 4$, and so on) and combinations of 10 ($1 + 9$, $2 + 8$, $3 + 7$, and so on) can help children solve nearly all other addition or subtraction facts. For this reason, these two groups of facts are a major focus in *First Grade Everyday Mathematics*. In Units 6 and 7, children learn strategies for solving more difficult facts.

As your child solves basic fact problems or plays fact games at home, you may wish to support his or her development of fact fluency by asking questions, such as these:

- How did you figure it out?
- Can you say aloud how you thought about it in your head?
- Is there another way you could figure it out?
- If someone did not know the answer, how would you explain to that person how to figure it out?

Discussion and practice with good fact strategies in first grade will lead to eventual mastery of all basic facts.