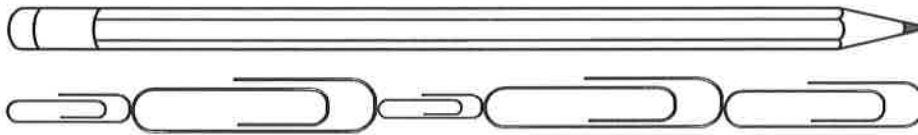


### Length and Addition Facts

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

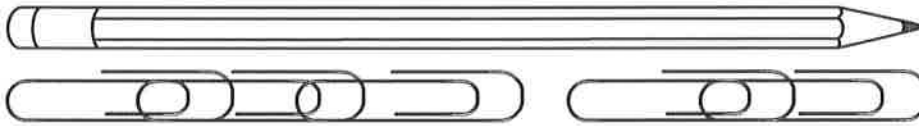
Children begin the unit by directly comparing the lengths of two objects. Then they compare the lengths of two objects indirectly by using a third object, such as a piece of string. Later children learn to measure length using nonstandard units like paper clips.

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.

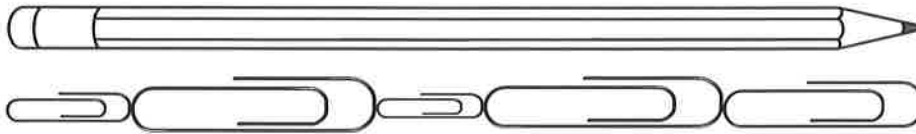
In Unit 4, children also begin developing strategies for adding more than two numbers and using place value to mentally add or subtract 10 from other 2-digit numbers.

### Operaciones de longitud y de suma

En la Unidad 4, se enfatizan dos ideas: medida de la longitud y fluidez para realizar las operaciones de suma.

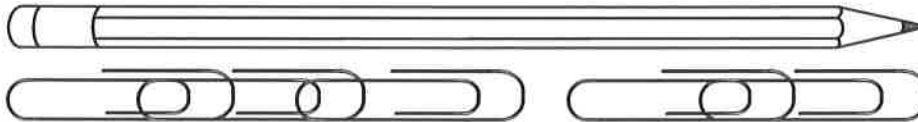
Los niños comienzan la unidad comparando directamente las longitudes de dos objetos. Luego, comparan las longitudes de dos objetos de manera indirecta utilizando un tercer objeto, como una cuerda. Más adelante, aprenden a medir usando unidades no estándar, como clips.

Aprenden que las unidades de medida deben tener el mismo tamaño.



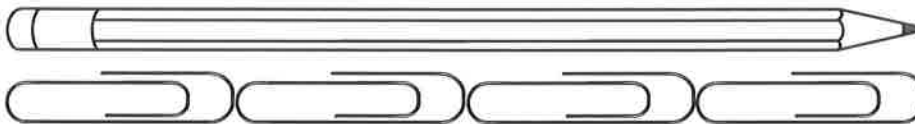
**Utilizar unidades de distintos tamaños no brinda una medida precisa.**

También aprenden que las unidades se deben disponer sin espacios vacíos o superposiciones.



**Medir con espacios vacíos y superposiciones no brinda una medida precisa.**

Las medidas correctas usan unidades del mismo tamaño sin espacios vacíos o superposiciones.



**El lápiz mide aproximadamente 4 clips de largo.**

En esta misma unidad, los niños hacen una transición que va de mostrar datos en tablas de conteo, a mostrar datos en gráficas de barras. Comparar longitudes los ayudará a interpretar los datos en esas gráficas.

Otras lecciones de la Unidad 4 se enfocan en las operaciones de suma. Uno de los estándares de Grado 1 requiere que los niños sumen y resten hasta 10 con fluidez. Para lograrlo la fluidez, deben tener la eficacia de recordar estas operaciones y usarlas en una variedad de situaciones. Las operaciones con dobles y las combinaciones de 10 son algunas de las más fáciles de recordar y se destacan en esta Unidad. Una vez que los niños aprenden estas, pueden utilizarlas como ayuda para calcular otras operaciones. La fluidez en las operaciones se desarrolla a lo largo del año, de modo que no se preocupe si su hijo no logra este objetivo de inmediato.

En la Unidad 4, los niños también comienzan a desarrollar estrategias para sumar más de dos números y usar el valor posicional para sumar o restar 10 mentalmente, de otros números de 2 dígitos.

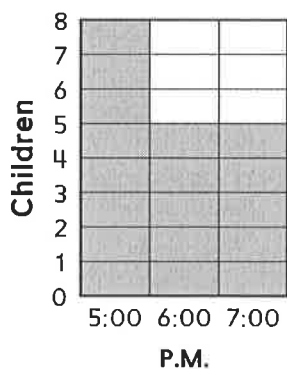
## Vocabulary

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  $9 + 7 = 16$ .

### What time do we eat dinner?



**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:

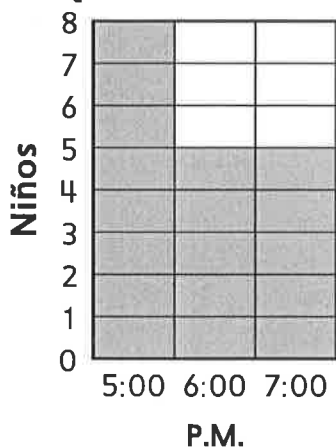
1. Measure flat objects in your home using paper clips. For example, you might measure the length of your mobile phone, the width of a small table, or the length of a spoon. Work with your child to place the paper clips end-to-end, without gaps or overlaps.
2. Use your fingers to help your child practice 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.

## Vocabulario Términos importantes en la Unidad 4:

**gráfica de barras** Una gráfica con barras que representan datos.

**operaciones de suma** Dos números del 0 al 10 y su suma, como  $9 + 7 = 16$ .

### ¿A qué hora cenamos?



**combinaciones de 10** Operaciones de suma en las que los números suman 10. Por ejemplo,  $4 + 6 = 10$  y  $3 + 7 = 10$  son combinaciones de 10.

**dobles** Operaciones de suma en las que ambos números que se suman son iguales. Por ejemplo,  $4 + 4 = 8$  y  $9 + 9 = 18$  son dobles.

**operación de ayuda** Una operación que conoces bien se puede usar para resolver una operación que no conoces bien.

## Actividades para hacer en cualquier ocasión

Para trabajar con su hijo sobre conceptos aprendidos en esta unidad y las anteriores, intente estas actividades:

1. Mida objetos planos de su casa usando clips. Por ejemplo, puede medir la longitud de su teléfono celular, el ancho de una mesa pequeña, o el largo de una cuchara. Trabaje con su hijo para colocar los clips de un extremo a otro, sin espacios vacíos ni superposiciones.
2. Use sus dedos para ayudar a su hijo a practicar cómo hallar combinaciones de 10. Por ejemplo, muestre ambas manos con 2 dedos levantados y el resto cerrados. Su hijo debe decirle que tiene 2 dedos levantados y 8 abajo. Continúe con distintas combinaciones de dedos.

También puede practicar sumas de dobles de esta manera, colocando una cantidad de dedos levantados y pidiéndole a su hijo que le diga el doble de esa cantidad.

3. Dibuje una gráfica de barras como la que se muestra arriba, pero enumere en la base tres actividades que a su hijo le guste hacer después de la escuela, como jugar con amigos, andar en bicicleta, y leer. Pídale que lleve las cuentas de la cantidad de veces que hace cada actividad en una semana determinada. Por ejemplo, si su hijo llega a casa y juega con amigos, deberá colorear hasta el número 1 arriba de "jugar con amigos", en la gráfica de barras. Al final de la semana, comente qué actividades hizo su hijo con mayor y menor frecuencia.

## 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

### **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**

- 1–5. Answers vary.
6. 11, 10

### **Home Link 4-11**

1. 33
2. 13
3. 48
4. 28
5.  $12; 8 + 4 = 12$

## Desarrollar destrezas por medio de los juegos

Su hijo practicará estos y otros juegos en la Unidad 4:

### **A la pesca de 10**

Cada jugador saca 5 tarjetas de números. El objetivo es “pescar” pares que sumen 10.

### **Lanzar y anotar dobles**

Cada jugador lanza un dado, duplica el número que lanzó y anota el total en una tabla. El juego termina cuando se completa una columna de la tabla.

### **¿Cuál es tu manera?**

Los jugadores se turnan para hallar mentalmente 10 más o 10 menos que un número dado, y compartir sus estrategias para hacerlo.

## Cuando ayude a su hijo a hacer la tarea

Cuando su hijo traiga tareas a casa, repasen juntos las instrucciones y clarifíquenlas si es necesario. Las siguientes respuestas seleccionadas le servirán de guía para usar los Vínculos con el hogar de esta unidad.

### **Vínculo con el hogar 4-1**

- 1–2. Las respuestas variarán.
3. Ejemplo de respuesta: No. Todo en el Problema 1 es más largo que la cuerda, de modo que los objetos del Problema 1 son más largos que los objetos del Problema 2
4. 9; 9 puntos en el lado izquierdo del dominó

### **Vínculo con el hogar 4-2**

- 1–4. Las respuestas variarán. 5. 55

### **Vínculo con el hogar 4-3**

- 1–3. Las respuestas variarán.
4. 13 5. 14 6. 12 7. 16

### **Vínculo con el hogar 4-4**

- 1–3. Las respuestas variarán.
4. 12;  $5 + 7 = 12$

### **Vínculo con el hogar 4-5**

1. Las respuestas variarán.
2. 7;  $3 + 4 = 7$

### **Vínculo con el hogar 4-6**

1. 5 2. 4
3. Antes de la hora de dormir; 2
4. 11, 13, 15, 17, 19

### **Vínculo con el hogar 4-7**

- 1–4. . Las respuestas variarán.

### **Vínculo con el hogar 4-8**

1. Las respuestas variarán.
2. 6 pennies

### **Vínculo con el hogar 4-9**

- 1–4. . Las respuestas variarán.
5. 17;  $9 + 8 = 17$

### **Vínculo con el hogar 4-10**

- 1–2. 14; . Las respuestas variarán.
6. 11, 10
- 3–5. 17; . Las respuestas variarán.

### **Vínculo con el hogar 4-11**

1. 33 2. 13 3. 48 4. 28
5. 12;  $8 + 4 = 12$

## 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.

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