FIRST GRADE

1.2 NUMBER AND OPERATIONS. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:

1.2(A) Recognize instantly the quantity of structured arrangements.

PERFORMANCE TASK ONLY

1.2A: Subitize (0-10) Use dominoes (real tiles or domino pictures), dot cards, 10-frames cards, and/or other tools with structured arrangements.

"What number do you see?" Show the student a structured arrangement for about 1 second. (Repeat.)
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1.2 NUMBER AND OPERATIONS. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:

1.2(B) Use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones.

1.2(C) Use objects, pictures, and expanded and standard forms to represent numbers up to 120.

1.2B and 1.2C: Forms of Numbers: The student will show multiple forms of a number* from 0 to 120. 1.2B can be done with place value tiles or with pictures of place value tiles.

❖ Using pictorial representations: Show the student a pictorial representation of a number. “What number is shown?” Ask the student to select the representations that are equal in value to the given number. “Which of these shows the same number?”

❖ Using concrete models: Show the student a concrete representation of a number using place value tiles. “What number is shown?” Ask the student to create a representation that is equal in value to the given number. (An option for scaffolding is to create three choices out of place value tiles. One or two of the choices should be equal in value. Rather than asking the student to create the representation, he/she will select the representation.)

Two Options: This can be done individually and/or as a group task (worksheet-format).
What number is shown?

Write the number:

Finish the expanded form of the number:

_____ hundreds + _____ tens + _____ ones

Which of these show(s) the same value as the number you wrote?

Write the number:

Finish the expanded form of the number:

_____ hundreds + _____ tens + _____ ones

Write the number:

Finish the expanded form of the number:

_____ hundreds + _____ tens + _____ ones

1.2B and 1.2C Compose, Decompose, and Represent Numbers to 120
1.2 NUMBER AND OPERATIONS. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:

1.2(D) Generate a number that is greater than or less than a given whole number up to 120.

1.2D: Generate Numbers: The student is shown a number* from 0 to 120.

- “Tell me a number that is greater than (given number).” (Students can be asked to “write” the number...)

- “Tell me a number that is less than (given number).” (Students can be asked to “write” the number...)

*Given numbers can be spoken or written.

Two Options: This can be done individually and/or as a group task (worksheet-format). Students may speak or write the generated numbers.
For each number card, write a number that is greater than the number and less than the number.

- **79**
  - Less than 79
  - Greater than 79

- **101**
  - Less than 101
  - Greater than 101

- **46**
  - Less than 46
  - Greater than 46

- **80**
  - Less than 80
  - Greater than 80

1.2D Generate numbers greater than and less than a given number up to 120
1.2 NUMBER AND OPERATIONS. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:

1.2(E) Use place value to compare whole numbers up to 120 using comparative language.

1.2(G) Represent the comparison of two numbers to 100 using the symbols >, <, or =.

1.2E and 1.2G: Compare Numbers: The student is shown two numbers.

❖ “Write the number of tens and ones for each of these numbers. What can you tell me about the value (size) of these two numbers?” Initially, teachers may need to prompt students to use comparative language.

❖ “Look at the number sentence below the numbers. Write the symbol that shows the relationship between the two numbers.”
Write how many ones and tens each number has.

Write >, <, or = to make the sentence true.

Write how many ones and tens each number has.

Write >, <, or = to make the sentence true.
How Many Tens and How Many Ones?

Write how many ones and tens each number has.

30

__________  ones

__________  tens

29

__________  ones

__________  tens

Write >, <, or = to make the sentence true.

30  29

Write how many ones and tens each number has.

92

__________  ones

__________  tens

97

__________  ones

__________  tens

Write >, <, or = to make the sentence true.

92  97

1.2E and 1.2G Compare numbers with place value, symbols, and language
1.2 NUMBER AND OPERATIONS. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:

1.2(F) Order whole numbers up to 120 using place value and open number lines.

1.2F: Order Numbers: The student is given three to five numbers and an open number line*.

❖ “Write the number of hundreds, tens, and ones for each of these numbers. Write the numbers on the open number line in the correct positions.

*Two Options: This can be done individually and/or as a group task (worksheet-format).
1.2F Order numbers using place value and an open number line.
Write the numbers in the correct order on the number line.
1.3 **NUMBER AND OPERATIONS.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

1.3(A) Use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99.

**1.3A Addition:** The student is given place-value tiles or pictures of place-value tiles.

- If using place value tiles: Show a group of ten rods (10-90) and a group of ones (1-9). “Use the tiles to add the numbers. What is the sum of the two numbers?” This performance task should be done individually or in a small group.

- If using pictorial representations: “Write the number represented by the pictures. Write the sum of the two numbers.” This task can be done in a large group setting.
Tens and Ones  Write the numbers represented by each picture in the rectangles. Then write the sum of the numbers in the rectangle below the numbers.

1.3A Add multiple of 10 to 1-digit number using objects or pictures
1.3 NUMBER AND OPERATIONS. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

1.3(B) Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as $2 + 4 = [\ ]; 3 + [ \ ] = 7; \text{ and } 5 = [ \ ] - 3$.

1.3(E) Explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences.

1.5 ALGEBRAIC REASONING. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(D) Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences.

1.3B, 1.3E, 1.5D Addition: Two examples of assessment are shown, both concrete and pictorial. All three types of problems are given: joining, separating, and comparing.

- If using (concrete) counters or linking cubes:
  
  "Listen as I read the problem. Use your cubes to show the action in the problem."

  "Now show the action on the number line."

  "Complete the number sentence to represent this problem."

  "How did you find your answer?"

- If using pictorial representations:
  
  "Listen as I read the problem. Draw a picture to show the action in the problem."

  "Now show the action on the number line."

  "Complete the number sentence to represent this problem."

  "How did you find your answer?"

This assessment has three levels: numbers to 10, numbers to 12, and numbers to 20.
Pointy Pencils!

Read and solve the word problem about pencils.

I have 8 pencils. I lost 3 pencils. How many pencils are left?

My picture:

My number line:

0 1 2 3 4 5 6 7 8 9 10

My number sentence:

Tell how you solved the pencil problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-10)
Vroom!

Read and solve the word problem about trucks.

I have 4 trucks. Jill has 5 trucks.
How many trucks are there in all?

My picture:

My number line:

My number sentence:

Tell how you solved the truck problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-10)
There are 8 dogs at the park. Some are brown and some are white. 5 dogs are white. How many are brown?

Tell how you solved the dog problem.
Pointy Pencils!

Read and solve the word problem about pencils.

I have 12 pencils. I lost 8 pencils. How many pencils are left?

My picture:

My number line:

My number sentence:

Tell how you solved the pencil problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-12)
I have 6 trucks. Jill has 5 trucks. How many trucks are there in all?

My picture:

My number line:

My number sentence:

Tell how you solved the truck problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-12)
Arf! Arf!

Read and solve the word problem about dogs.

There are 12 dogs at the park. Some are brown and some are white. 7 dogs are white. How many are brown?

My picture:

My number line:

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

My number sentence:

Tell how you solved the dog problem.
Pointy Pencils!

Read and solve the word problem about pencils.

I have 7 pencils. Kate has 4 pencils. How many pencils are there in all?

My picture:

My number line:

My number sentence:

Tell how you solved the pencil problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-12)
Read and solve the word problem about dogs.

There are eleven trucks. Six trucks have their lights on. How many trucks do not have lights on?

My picture:

My number line:

My number sentence:

Tell how you solved the truck problem.
Arf! Arf!
Read and solve the word problem about dogs.

There are 12 dogs at the park. Nine dogs ran away. How many dogs are still at the park?

My picture:

My number line:

My number sentence:

Tell how you solved the dog problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-12)
Pointy Pencils!

Read and solve the word problem about pencils.

I have 12 pencils. Kate has 6 pencils. How many pencils are there in all?

My picture:

My number line:

My number sentence:

Tell how you solved the pencil problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-20)
Vroom!

Read and solve the word problem about dogs.

There are 15 trucks. Seven trucks have their lights on. How many trucks do not have lights on?

My picture:

My number line:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

My number sentence:

Tell how you solved the truck problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-20)
Arf! Arf!
Read and solve the word problem about dogs.

There are 16 dogs at the park. Nine dogs ran away. How many dogs are still at the park?

My picture:

My number line:

My number sentence:

Tell how you solved the dog problem.

1.3B, 1.3E, 1.5D: Represent, solve, and explain addition and subtraction problems. (0-20)
1.3 NUMBER AND OPERATIONS. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

1.3(C) Compose 10 with two or more addends with and without concrete objects.

1.3C Composing Ten (Whole group format at three levels of proficiency)

❖ Level 1: The student completes the ten frame by drawing dots in the cells, then writes the correlating number sentence. The first addend is given.

❖ Level 2: The student completes the ten frame by drawing dots in the cells, then writes the correlating number sentence.

❖ Level 3: The student completes the ten frame using three different colors of dots to fill the cells. The student writes the correlating number sentence with three addends.
Complete the ten frames to write a number sentence that makes 10.

1. $7 + ____ = 10$
2. $4 + ____ = 10$
3. $8 + ____ = 10$
4. $1 + ____ = 10$

1.3C Compose 10 (with 2 addends and objects)
Make 10

Complete the ten frames to write a number sentence that makes 10.

1.  
   
   ___ + ___ = 10

2.  
   
   ___ + ___ = 10

3.  
   
   ___ + ___ = 10

4.  
   
   ___ + ___ = 10

1.3C Compose 10 (with 2 addends and objects)
Use three colors to complete the ten frames. Write a number sentence for each ten frame.

1.3C Compose 10 (with 3 addends and objects)
1.3 **NUMBER AND OPERATIONS.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

1.3(D) Apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10.

1.5 **ALGEBRAIC REASONING.** The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(G) Apply properties of operations to add and subtract two or three numbers.

1.3D, 1.5G: **Making 10, Using Properties of Operations (Addition)** There are two levels for this assessment. The story problem may be read to students. **NOTE:** This standard is assessed in two parts, beginning with addition (making 10).

- **Concrete Objects:** Students use the space to represent the numbers in the problem. Students “make ten” by grouping sets that add to ten. (Students can be guided in writing the number sentence, if needed.)

- **Pictorial Representation:** Students are expected to make a simple drawing that shows each category, circle ten in the drawing, complete the number sentence, and solve.

Bill bought 1 apple, 9 oranges, and 6 pears.

How many pieces of fruit did Bill buy?

\[
\begin{array}{c}
A \quad B \quad P \\
1 \quad 9 \quad 6 \\
10 + 6 = 16 \\
\end{array}
\]

Bill bought 16 pieces of fruit.

Note that (in making ten) students are using both the associative and commutative properties of operations. Students do not need to know the terminology.
Bill went to the store. He bought 8 apples, 3 bananas, and one pear. How many pieces of fruit did he buy?

My model:

\[ \underline{8} + \underline{3} + \underline{1} \]

\[ 10 + \underline{2} = \underline{12} \]

Bill bought ________ pieces of fruit.

Mia got several new toys for her birthday. She got 2 dolls, 7 balls and three games. How many toys did she receive?

My model:

\[ \underline{2} + \underline{7} + \underline{3} \]

\[ 10 + \underline{2} = \underline{12} \]

Mia received ________ new toys.
Read the math story. Make a simple math drawing with labels. Circle ten and solve.

Maria has 7 snowballs. Tony has 5. How many snowballs do they have in all?

My picture:

Circle 10.

10 and ______ make ______

Maria and Tony have ______ snowballs in all.

Mike has 8 raisins. Sue has 4 raisins. How many raisins do they have together?

My picture:

Circle 10.

10 and ______ make ______

Mike and Sue have ______ snowballs in all.

1.3D, 1.5G Level 2: Pictorial representation; Making ten to solve addition, properties of operations (within 12)
1.3 **NUMBER AND OPERATIONS.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computation in order to solve problems. The student is expected to:

1.3(D) Apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to 10.

1.5 **ALGEBRAIC REASONING.** The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(F) Determine the unknown whole number in an addition or subtraction equation when the unknown may be one of three or four terms in the equation.

1.5(G) Apply properties of operations to add and subtract two or three numbers.

This assessment tool focuses on the two remaining parts of the standard:
- Applying basic fact strategies and
- Subtracting nearing 10.

For instructional purposes, once concrete manipulation is understood, number lines are excellent pictorial tools for reinforcing the concept of subtracting by decomposing leading to 10.

- **Part 1:** The word problem may be read to the students. Students are expected to decompose the subtrahend (number being subtracted) to leave 10 in the minuend (first number).
- **Part 2** of 1.3D gives the students subtraction problems without contexts and the challenge of changing the subtrahend to ten by decomposing the minuend. For instance:

\[
\begin{array}{c@{}c@{}c@{}c@{}c@{}c@{}c}
15 & & & & \text{becomes} & 10 & 5 \\
- & 7 & & & \text{decompose} & 7 & 2 \text{ and } 5 \\
\end{array}
\]

Think of 15 as 10 and 5. Then decompose 7 into 2 and 5, matching the number of ones. The subtraction problem becomes 10 - 2 = 8.

- **Part 3** of 1.3D incorporates 1.5E, 1.5F, and 1.5G as students apply fact strategies and properties of operations (1.5G) to determine the unknown (1.5F) in addition and subtraction equations within 20. An understanding of the meaning of the equal sign (1.5E) is necessary as the unknown is moved throughout the equation. Please note that the teacher may assign a small portion of the items!

**NOTE:** Included are tools that do not require the use of a particular strategy. Students may select the strategy, as appropriate.

- **Part 4** includes addition and subtraction equations with two given terms and one unknown.
- **Part 5** is subtraction within 20 using any method.
There are 12 bees buzzing around a flower. Four bees flew away. How many bees are still buzzing around the flower?

12
- 4
\[ \underline{10} \text{ and } \underline{0} \]

There are \[ \underline{8} \] bees still buzzing around the flower.

Lucy has 11 stickers. She gave 8 of the stickers to her brother. How many stickers does Lucy have now?

11
- 8
\[ \underline{10} \text{ and } \underline{0} \]

Lucy has \[ \underline{3} \] stickers.
SUBTRACTING BY DECOMPOSING WITH 10

Write the number that belongs in the box after making 10 from the number being subtracted. Then answer the problem.

1. 15 10 \underline{\hspace{2cm}}
   \hspace{2cm} - 7
   \hspace{2cm} 0

2. 13 10 \underline{\hspace{2cm}}
   \hspace{2cm} - 8
   \hspace{2cm} 0

3. 17 10 \underline{\hspace{2cm}}
   \hspace{2cm} - 9
   \hspace{2cm} 0

4. 16 10 \underline{\hspace{2cm}}
   \hspace{2cm} - 7
   \hspace{2cm} 0

5. 12 10 \underline{\hspace{2cm}}
   \hspace{2cm} - 8
   \hspace{2cm} 0

6. 14 10 \underline{\hspace{2cm}}
   \hspace{2cm} - 9
   \hspace{2cm} 0

1.3D Part 2: Subtract nearing ten without context
exploring addition
Use any method to determine the unknown in each number sentence.

1. \[5 + \underline{\phantom{0}} = 12\]
2. \[\underline{\phantom{0}} + 3 = 19\]
3. \[11 + 6 = \underline{\phantom{0}}\]
4. \[2 + 8 + \underline{\phantom{0}} = 11\]
5. \[4 + \underline{\phantom{0}} + 4 = 15\]
6. \[17 = \underline{\phantom{0}} + 5 + 8\]
7. \[9 = \underline{\phantom{0}} + 4\]
8. \[13 = 7 + \underline{\phantom{0}}\]
9. \[\underline{\phantom{0}} + 12 = 7 + 9\]
10. \[7 + 3 = 9 + \underline{\phantom{0}}\]
11. \[15 + 1 = \underline{\phantom{0}} + 12\]
12. \[5 + 8 = \underline{\phantom{0}} + 10\]
## ADDITION AND SUBTRACTION TO 20

Use any method to determine the unknown in each number sentence.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16 - 9 = ___</td>
<td>8 + ____ = 14</td>
<td>____ - 6 = 12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>____ - 7 = 13</td>
<td>____ + 2 = 18</td>
<td>19 - 8 = ____</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 + 9 = ____</td>
<td>18 - ____ = 12</td>
<td>____ + 13 = 19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 - ____ = 6</td>
<td>10 + ____ = 15</td>
<td>____ - 8 = 7</td>
</tr>
</tbody>
</table>

1.3D Part 4: Apply +/- fact strategies within 20, 1.5E Equal sign, 1.5F Determine missing addend, 1.5G Use properties of operations
SUBTRACTION! Use any method to determine the missing number that makes the subtraction sentence true.

\[
\begin{array}{cccc}
15 & -8 & \underline{} & 0 \\
9 & \underline{} & 8 & 10 \\
15 & \underline{} & 6 & 7 \\
\underline{} & 9 & \underline{} & 3 \\
20 & 16 & \underline{} & 10 \\
\end{array}
\]

1.3D Part 5: Apply subtraction fact strategies within 20, 1.5E Equal sign, 1.5F Determine missing addend, 1.5G Use properties of operations
1.3 **NUMBER AND OPERATIONS.** The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

1.3(F) Generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20.

For this standard, students should be given a number sentence to represent with an original word problem. The number sentences should show addition and subtraction within 20. At some point, students should write an addition problem and a subtraction problem.

There are two formats provided for assessing this standard. One format includes both addition and subtraction sentences in one task that can be done as a large group.

The second format gives options for changing the number sentences and for small group administration.

- Give students one of the number sentences provided and a template for writing and solving a word problem. (There are number sentences within 10 and within 20.)

- Number sentences with missing addends, minuends, and subtrahends are provided for intuitive mathematicians.

- An assessment tool for a large group is also provided as a worksheet, similar to the first tool provided.
Write a story problem that matches the number sentence in the box. Solve your problem.

My story problem:

__________________________________________________________

__________________________________________________________

__________________________________________________________

The answer to my problem: _________

My story problem:

__________________________________________________________

__________________________________________________________

__________________________________________________________

The answer to my problem: _________

1.3F Generate a story problem when given a +/- number sentence
Writing Word Problems
This word problem was written by ________________________________.

YOUR NAME

Write your number sentence in this box:

Write your own problem for your number sentence.

Solve your problem.

Answer:

1.3F Write and solve word problem template (addition or subtraction)
1.3F Generate and solve addition word problem given a number sentence within 10

3 + 6 = _____

5 + 4 = _____

2 + 8 = _____

7 + 2 = _____
1.3F Generate and solve subtraction word problem given a number sentence within 10

7 - 6 = ______

8 - 5 = ______

9 - 4 = ______

10 - 3 = ______
1.3F Generate and solve addition/subtraction word problem given a number sentence within 10 with unknown as any term

3 + ___ = 9

___ + 4 = 7

9 - ___ = 0

___ - 5 = 3
1.3F Generate and solve addition/subtraction word problem given a number sentence within 12

7 + 5 =

4 + 8 =

3 + 9 =

10 + 2 =
1.3F Generate and solve addition/subtraction word problem given a number sentence within 12

11 - 6 = _____

12 - 8 = _____

11 - 4 = _____

10 - 6 = _____
1.3F Generate and solve addition/subtraction word problem given a number sentence within 12 with unknown as any term

1. $7 + ___ = 12$
2. $___ + 8 = 11$
3. $12 - ___ = 6$
4. $___ - 5 = 7$
Writing Word Problems

Write your own problem for each number sentence. Be sure to solve your problem!

1. $4 + 8 = \boxed{12}$

   Answer:

2. $10 - 7 = \boxed{3}$

   Answer:
1.3F Generate and solve addition/subtraction word problem given a number sentence within 20

7 + 6 = ____

5 + 8 = ____

4 + 9 = ____

13 + 2 = ____
1.3F Generate and solve addition/subtraction word problem given a number sentence within 20

17 - 6 = ____

15 - 8 = ____

19 - 4 = ____

11 - 2 = ____
1.3F Generate and solve addition/subtraction word problem given a number sentence within 20

7 + ___ = 18

___ + 8 = 14

19 - ___ = 6

___ - 5 = 9
Writing Word Problems

These word problems were written by ____________________________.

YOUR NAME

Write your own problem for each number sentence. Be sure to solve your problem!

4 + 8 = __________

________________________
________________________
________________________

Answer:

10 - 7 = __________

________________________
________________________
________________________

Answer:
1.4 NUMBER AND OPERATIONS. The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to:

1.4(A) Identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them.

1.4(B) Write a number with the cent symbol to describe the value of a coin.

1.4(C) Use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.

This group of standards would be best assessed as performance tasks in small group or individual settings using real coins or plastic coins. After the students have multiple experiences with real/plastic coins, photocopied coins in color and black & white could be used.

Combination of 1.4A, 1.4B:

- **Performance Task:** In random order, place a penny, nickel, dime and quarter in front of the student.
  - Ask the student to tell the name of the coin and the value of the coin.
  - Ask the student to describe the relationship between two coins (dime and nickel, penny and nickel, quarter and penny, etc.).
  - Ask the student to write the value using the cent sign.
- **Large Group:** A 2-page worksheet version called “Identifying Coins” using pictorial representations is provided for 1.4A & 1.4B.

1.4C: (There are two versions of this assessment.)

- **Performance Task:** Give the student a mixture of coins. Ask the student to count the coins to determine the total amount, skip counting when appropriate.
- **Large Group:** A worksheet version with pictorial representations is provided.

Extension: (Integration of 1.4A, 1.4B, 1.4C and process standards)
• **Performance Task:** Show the student a picture of an item with a price tag using the cent symbol. Give the student a cup of coins. Ask the student to show two ways to represent the amount on the price tag.

• **Large Group:** A worksheet version with pictorial representations is provided.
# Identifying Coins

Name each coin using this word bank:

- Nickel
- Quarter
- Penny
- Dime

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Quarter" /></td>
<td><img src="image2" alt="Dime" /></td>
<td><img src="image3" alt="Penny" /></td>
</tr>
<tr>
<td><img src="image4" alt="Nickel" /></td>
<td><img src="image5" alt="Quarter" /></td>
<td><img src="image6" alt="Penny" /></td>
</tr>
<tr>
<td><img src="image7" alt="Dime" /></td>
<td><img src="image8" alt="Nickel" /></td>
<td><img src="image9" alt="Quarter" /></td>
</tr>
<tr>
<td><img src="image10" alt="Penny" /></td>
<td><img src="image11" alt="Dime" /></td>
<td><img src="image12" alt="Nickel" /></td>
</tr>
</tbody>
</table>

What is the difference between the value of a **nickel** and a **penny**?

What is the difference between the value of a **quarter** and a **dime**?

---

1.4A Identify coins by value and describe the relationships among them, 1.4B Write the value using $
**IDENTIFYING COINS**

What is the value of each coin? (Use ¢ to write the value.)

<table>
<thead>
<tr>
<th>Quarter Dollar</th>
<th>Nickel</th>
<th>Roosevelt Dime</th>
<th>Penny</th>
</tr>
</thead>
</table>

Circle the coin with a greater value:

Circle the coin with a greater value:

1.4A Identify coins by value and describe the relationships among them, 1.4B Write the value using ¢
COUNTING COINS

What is the value of each group of coins? (Use $ to write the value.)

Value: _____________

Value: _____________

1.4C Skip count to determine the value of a collection of coins.
COUNTING THE COST USING COINS

Pick an item. Using your coins, show two ways to represent the price of the item.

1. **45¢**
   - Pencil

2. **82¢**
   - Buckets

3. **63¢**
   - Sunglasses

4. **57¢**
   - Ball

1.4A, B, & C Extension Performance Task
1.5 ALGEBRAIC REASONING. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(A) Recite numbers forward and backward from any given number between 1 and 120.

This standard can only be assessed as a performance task. Reciting numbers cannot be achieved as a paper/pencil activity or even as a large group task.

Basically, the teacher asks each student to count forward from a given number and backward from a given number within 1-120.

In lieu of a tool, we provided slips to note accomplishments!
I DID IT!
I COUNTED FORWARD TO 120
BEGINNING AT 1!
I COUNTED BACKWARD TO 0
BEGINNING AT 1!

I DID IT!
I COUNTED FORWARD TO 120
BEGINNING AT 1!
I COUNTED BACKWARD TO 0
BEGINNING AT 1!
1.5 ALGEBRAIC REASONING. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(B) Skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set.

The purpose of this standard is to be able to use efficient ways of counting objects, particularly skip counting. This is a performance task because it involves objects. The task has three parts:

Skip Count by 2s: For this part of the task, the teacher places 20-36 objects on a counting mat. (The number of objects does NOT need to be even.) Students are instructed to skip count by 2s to find the total number of objects.

Skip Count by 5s: For this part of the task, the teacher places 50-100 objects on a counting mat. (The number of objects does NOT need to be a multiple of 5.) Students are instructed to skip count by 5s to find the total number of objects.

Skip Count by 10s: For this part of the task, the teacher places 70-120 objects on a counting mat. (The number of objects does NOT need to be a multiple of 10.) Students are instructed to skip count by 10s to find the total number of objects.

Objects work well, because the student are able to form groups and move the objects as he/she counts them.

We provided a paper version of this task with pictorial representations for those who need to be able to assess more than one student at a time. The standard specifies objects, but in a pinch, this task could substitute.
Skip count by 2s to count the total number of butterflies. Each set contains 2 butterflies. Write the total number of butterflies at the bottom of the page.

The total number of butterflies is ________________.
Skip count by 5s to count the total number of frogs. Each set contains 5 frogs. Write the total number of frogs at the bottom of the page.

The total number of frogs is _______________.

1.5B Skip count by 2s, 5s, and 10s to 120.
Skip count by 10s to count the total number of turtles. Each set contains 10 turtles. Write the total number of turtles at the bottom of the page.

The total number of turtles is ____________.
1.5 ALGEBRAIC REASONING. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(C) Use relationships to determine the number that is 10 more and 10 less than a given number up to 120.

For this standards, basically students are expected to generate a number 10 more or 10 less than a given number. This can certainly be accomplished as an individual performance task. We created two levels to assess this standard.

**Level 1:** The student writes the number 10 more and 10 less than a given a number. At this level, we constrain the numbers to multiples of 10.

**Level 2:** This is the full measure of the standard. At this level, the numbers can be any numbers from 10 to 110, not necessarily multiples of 10.

**Additional Task:** Our team created an extension that includes 1 more, 1 less with 10 more, 10 less using the squares of a hundreds chart.
Write the number that is 10 less and 10 more than the numbers in the boxes.

- 10 more, 10 less (multiples of 10)
TEN MORE, TEN LESS

Write the number that is 10 less and 10 more than the numbers in the boxes.

27

65

81

74

19

105

42

93

1.5C 10 more, 10 less (not multiples of 10)
missing numbers

Write the numbers missing in each section of the 100s chart.

- 90
- 42
- 11
- 38
- 73
- 106

1.5C 10 more, 10 less (with 1 more, 1 less integrated)
1.5 ALGEBRAIC REASONING. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(E) Understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s).

1.5(F) Determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation.

1.5E and 1.5F: Equal Sign and Unknown Terms: This assessment tool combines the two standards into one assessment.

- **EQUAL BALANCE** The student writes the number in the box that would make the problems have the same sum.

1.5E: Equal Sign: There are two options for demonstrating understanding of the equal sign.

- **YES OR NO** The student determines whether or not the given number sentence is true by working both sides of the equation and determining if the two answers are equal in value. If it is true, he/she circles YES.

- **BALANCING ACTS** The student selects and writes which numbers go in the boxes to make the equation true.

1.5E, 1.5F: Algebraic Reasoning

- The student completes the equations by writing the addend that would make it true.

- A second version is provided with ten frames and fewer problems per page for struggling students.
Write the number that would make the two addition problems balance.

\[
\begin{align*}
9 & \quad + 1 \\ & = + 10
\end{align*}
\]

\[
\begin{align*}
7 & \quad + \square \\ & = + 6
\end{align*}
\]

\[
\begin{align*}
8 & \quad + 4 \\ & = + 10
\end{align*}
\]

1.5F Find the unknown addend in a number sentence (within 12) 1.5E Understand equal sign
1.5F Find the unknown addend in a number sentence (within 12)  1.5E Understand equal sign
Work each problem to see if it is true. Circle YES if it is true and NO if it is not true.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>12 = 8 + 4</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>2.</td>
<td>9 + 3 = 6 + 6</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>3.</td>
<td>2 + 7 = 5 + 5</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>4.</td>
<td>0 + 11 = 5 + 6</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>5.</td>
<td>4 + 4 = 7 + 2</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>6.</td>
<td>11 = 4 + 7</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>7.</td>
<td>6 + 2 = 4 + 3</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

1.5E Understand the equal sign (within 12)
Balancing Acts

Write the numbers from the boxes on to make an equal number sentence.

1. $\text{ } + \text{ } = \text{ } + \text{ }$

2. $\text{ } + \text{ } = \text{ } + \text{ }$

3. $\text{ } + \text{ } = \text{ } + \text{ }$

1.5E Understand the equal sign (within 12)
Balancing Acts
Write the numbers from the boxes on to make an equal number sentence.

1.5E Understand the equal sign (within 12)
Write the number that would make the number sentence true.

9 + 1 = ☐

5 + ☐ = 7

8 + 2 = ☐

☐ + 4 = 9

5 + ☐ = 6

6 + 3 = ☐

7 + ☐ = 7

1.5E, 1.5F Using the meaning of the equal sign to find the unknown addend in a number sentence
Write the number that would make the number sentence true.

\[ 9 - 1 = \square \]

\[ 5 - \square = 3 \]

\[ 8 - 3 = \square \]

\[ \square - 4 = 4 \]

\[ 5 - \square = 1 \]

\[ 6 - 3 = \square \]

\[ 7 - \square = 7 \]

1.5E, 1.5F Using the meaning of the equal sign to find the unknown addend in a number sentence
Write the number that would make the number sentence true.

9 + 1 = ☐

5 + ☐ = 7

4 + 1 = ☐

☐ + 4 = 9

5 + ☐ = 6

1.5E, 1.5F Using the meaning of the equal sign to find the unknown addend in a number sentence
Write the number that would make the number sentence true.

\[ 6 + 3 = \square \]

\[ 7 + \square = 7 \]

\[ \square + 2 = 10 \]

\[ 5 + \square = 9 \]

1.5E, 1.5F Using the meaning of the equal sign to find the unknown addend in a number sentence
Write the number that would make the number sentence true.

\[ 9 - 1 = \square \]

\[ 5 - \square = 3 \]

\[ 8 - 3 = \square \]

\[ \square - 4 = 4 \]

1.5E, 1.5F Using the meaning of the equal sign to find the unknown addend in a number sentence
Write the number that would make the number sentence true.

\[
5 - \square = 1
\]

\[
6 - 3 = \square
\]

\[
7 - \square = 7
\]

\[
\square - 6 = 2
\]
1.5 ALGEBRAIC REASONING. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5(G) Apply properties of operations to add and subtract two or three numbers.

This standard is best assessed as a performance task, because students can use properties of operations in multiple ways that might not be visible on paper.

Basically, we are checking to see if a student understands that he/she can change the order, break a number apart, and/or group differently while adding numbers.

Give student an addition expression with two or three addends. With or without objects, the student is asked to show two ways to add the numbers.

\[ 2 + 6 + 8 \]

The student might add 2 to 8 to get 10, and then add 6 to get 16.

The student might add 2 to 6 to get 8 and double 8 to get 16.

\[ 4 + 7 \]

The student might decompose 7 into 6 and 1. Next he/she might add 4 and 6 to get 10, and then add 1.

The student might add 7 to 4 by counting on.

\[ 3 + 5 + 9 \]

The student could decompose 3 into 2 and 1. He/she could add 1 to 9 to get 10 and 2 to 5 to get 7, and then add 7 plus 10 to get 17.

The student could add 3 + 5 to get 8, and decompose 9 into 8 + 1, and then use the doubles plus 1 strategy to get 17.

The student could add 5 to 9 to get 14, and then count up 3 past 14 to get 17.

These tools have three levels: numbers to 10, numbers to 12, and numbers to 20.
1.5G Add/subtract with properties of operations (within 10)

\[ 2 + 7 \]
\[ 3 + 4 \]
\[ 5 + 3 \]
\[ 8 + 1 \]
1.5G Add/subtract with properties of operations (within 10)

- $2 + 6 + 1$
- $3 + 3 + 3 + 3$
- $5 + 2 + 2$
- $3 + 4 + 1$
1.5G Add/subtract with properties of operations (within 10)

$$3 + 2 + 1$$

$$2 + 4 + 3$$

$$6 + 1 + 2$$

$$2 + 5 + 3$$
1.5G Use properties of operations to add or subtract (within 12)

- $5 + 7$
- $3 + 8$
- $5 + 6$
- $9 + 2$
1.5G Use properties of operations to add or subtract (within 12)
1.5G Use properties of operations to add or subtract (within 12)
7 + 9

6 + 8

5 + 10

9 + 8

1.5G Use properties of operations to add or subtract (within 20)
15 - 8
16 - 7
12 - 5
13 - 8

1.5G Use properties of operations to add or subtract (within 20)
5 + 6 + 4

3 + 5 + 7

5 + 9 + 2

7 + 8 + 3

1.5G Use properties of operations to add or subtract (within 20)
$8 + 4 + 4$

$7 + 5 + 7$

$6 + 5 + 4$

$8 + 3 + 8$

1.5G Use properties of operations to add or subtract (within 20)
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(A) Classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language.

This standard can be assessed as a performance task with plastic or paper shapes.

A large group format of this assessment is provided in four versions.

Students may sort by any attribute they select, however certain attributes are highlighted on each version.

1. Number of sides or vertices (triangles and quadrilaterals only)
2. Corners (right angles or what our students might call “square corners”)
3. Sides (some sides seem to be caved in—concave, and some poke out—convex)
4. Curves (some figures have curved sides)

Students are not expected to know the specific terminology for right angles, concave, or convex, but visually, students should be able to discern between the presence and absence of attributes.
SORTING SHAPES

Cut out the shapes below and sort them.

Beside the words “My RULE” write your reason for sorting them the way you did.

My RULE: _______________________________________________________

1.6A Sort and classify 2-D shapes (1)
SORTING SHAPES

Cut out the shapes below and sort them.

Beside the words “My RULE” write your reason for sorting them the way you did.

My RULE: _____________________________________________________

1.6A Sort and classify 2-D shapes (2)
Sorting Shapes

Cut out the shapes below and sort them.

Beside the words “My RULE” write your reason for sorting them the way you did.

My RULE: _____________________________________________________

1.6A Sort and classify 2-D shapes (3)
SORTING SHAPES

Cut out the shapes below and sort them.
Beside the words "My RULE" write your reason for sorting them the way you did.

My RULE: _____________________________________________________

1.6A Sort and classify 2-D shapes (4)
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(B) Distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape.

This standard may be assessed as a performance task with the teacher showing the student a shape, then listing critical and non-critical attributes. The student would identify the ones that define the shape (are necessary).

What Do We Have in Common? The provided assessment tool can be used in a large group setting. The students study a set of sorted shapes, then determine which attributes are common to all in that set. Students are asked to circle the attributes common to ALL shapes in each set.
### What Do We Have in Common?

Each box shows one type of figure. Look at the attributes listed to the right of each box. **Circle** the attributes that **ALL** the figures in the box share.

#### Triangles

Circle the attributes that all triangles must have.

<table>
<thead>
<tr>
<th>Tall</th>
<th>Square Corner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shading</td>
<td>No Shading</td>
</tr>
<tr>
<td>Three Sides</td>
<td>Flat</td>
</tr>
<tr>
<td>Three Vertices</td>
<td>Small</td>
</tr>
</tbody>
</table>

#### Prisms

Circle the attributes that all prisms must have.

<table>
<thead>
<tr>
<th>Short</th>
<th>Edges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertices</td>
<td>Shading</td>
</tr>
<tr>
<td>Flat Sides</td>
<td>3 Dimensions</td>
</tr>
</tbody>
</table>

#### Rectangles

Circle the attributes that all rectangles must have.

<table>
<thead>
<tr>
<th>Four Equal Sides</th>
<th>Square Corners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaded</td>
<td>No Shading</td>
</tr>
<tr>
<td>Four Sides</td>
<td>Flat</td>
</tr>
<tr>
<td>Four Vertices</td>
<td>Small</td>
</tr>
</tbody>
</table>

1.6B Critical and non-critical attributes of 2-D and 3-D shapes
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(C) Create two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons.

1.6C involves the creation of 2-dimensional figures. This standard is more easily assessed as a performance task. Some of the materials that could be used for creating shapes include:

- Pencil and paper
- Chenille strips
- Wiki sticks
- Playdough
- Craft sticks
- Magformers
- Toothpicks and marshmallows or gum drops

1.6C Geometric Art! If you prefer to assess this standard in a large group setting, a pencil/paper format is provided.
<table>
<thead>
<tr>
<th>Square</th>
<th>Triangle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hexagon</th>
<th>Rectangle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circle</th>
<th>Rhombus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.6C Create 2-D figures
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(D) Identify two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language.

1.6D Name that Shape! The provided assessment tool can be used in a large group setting. Students use a word bank to name two-dimensional figures. For each shape, students are asked to determine the number of sides and the number of vertices (not corners, since the standard specifies formal geometric language).
Name that SHAPE!

Use the word bank to write the name of each shape in the blank under the shape and tell how many sides and vertices each shape has.

<table>
<thead>
<tr>
<th>Name</th>
<th>Sides</th>
<th>Vertices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>_____</td>
<td>______</td>
</tr>
<tr>
<td>square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rectangle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>circle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rhombus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>triangle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hexagon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.6D Identify 2-D shapes and describe attributes formally.
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(E) Identify three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes), and triangular prisms, and describe their attributes using formal geometric vocabulary.

This standard is easily assessed as a performance task with the teacher showing a 3-dimensional solid and the student naming the solid and the number of faces, vertices, and edges for that solid.

An assessment tool for a large group setting is also provided.

1.6E 3-Dimensional Solids: The students use a word bank to name each 3-dimensional solid shown. Students also write the number of faces, edges, and vertices for each solid.
3-Dimensional Solids

Use the word bank to write the name of each solid and the number of faces, edges, and vertices each has.

- rectangular prism
- cylinder
- cone
- cube
- triangular prism

<table>
<thead>
<tr>
<th>Name:</th>
<th>_______ Faces</th>
<th>_______ Vertices</th>
<th>_______ Edges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cone</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Triangular Prism</td>
<td>5</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Cylinder</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Cube</td>
<td>6</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Sphere</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

1.6E Identify and describe (attributes) 3-D solids
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(F) Compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible.

1.6F Building Shapes For this assessment tool, students will use a collection of pattern blocks. After building the shapes, the students can take a photo of the new shape to submit. (Without technology, students can trace or list the shapes used to compose the target shape.)
Building Shapes!

Use pattern blocks to build each shape in two different ways. Take a photo of the shapes you create.
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(G) Partition two-dimensional figures into two and four figures fair shares or equal parts and describe the parts using words.

1.6G This standard is best assessed as a performance task because the student is asked to partition the shapes, and the student is asked to describe the parts in words. If portions are already designated, and/or if the teacher (or worksheet) uses the words “half” or “fourths,” the full measure of the standard has not been assessed.

1.6G Folding Equal Shares: Folding is an accurate way to determine two or four equal shares.

- The teacher provides the students with a variety of rectangles, squares, or circles.
- The student is asked to show fold to create 2 equal shares with one of the shapes.
- The student is asked to tell the fraction name of the part he/she created.
- Repeat for 4 equal shares.

(Hint: Use a dye-cut machine to cut out the circles!)

NOTE: A pencil/paper tool is provided, but not necessary for this performance task.
DRAW & TELL: EQUAL SHARES

Draw 2 equal shares on each model. Tell your teacher the fraction name for the parts you drew.

Draw 4 equal shares on each figure. Tell your teacher the fraction name for the parts you drew.

1.6G Partition shapes into 2 and 4 equal shares and describe the part as a fraction
1.6 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

1.6(H) Identify examples and non-examples of halves and fourths.

1.6H To Be or Not to Be...halves and Fourths! This assessment tool can be used in a large group setting. Students are asked to cross out the shapes that are not examples of halves and fourths.
To Be or Not to Be...Halves and Fourths!

Cross through the shapes that are NOT examples of HALVES.

Cross through the shapes that are NOT examples of FOURTHS.

1.6H Examples and non-examples of halves and fourths
1.7 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:

1.7(A) Use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement.

1.7(D) Describe a length to the nearest whole unit using a number and a unit.

1.7A, 1.7D How L-O-N-G? These two standards are combined in one assessment tool. The students are asked to measure the lengths of pictures and write the measurement with numbers and units.

Because the standard specifies a measurement tool, we have provided one sheet for customary (inch) measures and one for metric (centimeters) measures. The standard does not specify the measurement system, so either one of these tools would be sufficient.

Please note that this assessment can be accomplished with objects from the classroom.
How L-O-N-G? Use an inch ruler to find the length of each picture. Write the measurement using a number and a unit.

Length:

<table>
<thead>
<tr>
<th>Number</th>
<th>Unit</th>
</tr>
</thead>
</table>

1.7A, 1.7D Measure length, record with # and unit (inches)
1.7A, 1.7D Measure length, record with # and unit (inches)
How L-O-N-G? Use a centimeter ruler to find the length of each picture. Write the measurement using a number and a unit.

Length:

<table>
<thead>
<tr>
<th>Number</th>
<th>Unit</th>
</tr>
</thead>
</table>

1.7A, 1.7D Measure length, record with # and unit (centimeters)
1.7A, 1.7D Measure length, record with # and unit (centimeters)
1.7 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:

1.7(B) Illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other.

This standard is integrated with 1.7A and 1.7C. In fact, a student cannot show proficiency on 1.7A or 1.7C without understanding how to measure, which is the essence of this standard.

1.7B Which Length Is Correct? To assess this standard in isolation, we provided examples and non-examples of linear measurements. The students select the one that is measured correctly. A great idea would be for the teacher to ask the student to explain one of his/her choices.
### Which Length Is Correct?

Circle the picture that shows the correct way to measure length.

<table>
<thead>
<tr>
<th>7 cubes</th>
<th>6 cubes</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Cubes" /></td>
<td><img src="image2" alt="Cubes" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 paper clips</th>
<th>5 paper clips</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Paper Clips" /></td>
<td><img src="image4" alt="Paper Clips" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 keys</th>
<th>3 keys</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="Keys" /></td>
<td><img src="image6" alt="Keys" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 tiles</th>
<th>6 tiles</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7" alt="Tiles" /></td>
<td><img src="image8" alt="Tiles" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 pennies</th>
<th>7 pennies</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image9" alt="Pennies" /></td>
<td><img src="image10" alt="Pennies" /></td>
</tr>
</tbody>
</table>

1.7B Linear Measurement
1.7 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:

1.7(C) Measure the same object/distance with units of two different lengths and describe how and why the measurements differ.

The standard 1.7C would be best assessed as a performance standard because it expects the students to describe how and why measurements differ.

Performance Task: The teacher gives the student a collection of units (tiles, cubes, toothpicks, paper clips) to be used for measuring the length of one object. When the student tells the measurement, the teacher should ask why the measures differ if the length is the same.

Large Group Assessment WHY?: The assessment tool we provided creates the scenario for the student to explain the difference. There is still the one-on-one element to this tool to assess student reasoning. (The tool calls for color tiles which are 1-inch in length and toothpicks with are about 2 inches in length. Other units could be used.)
You will need color tiles and toothpicks for this activity. Measure the length of each rope with the color tiles and with the toothpicks. Record both lengths using a number and a unit.

Measurements: _________________  and  _________________
Why are they different?

Measurements: _________________  and  _________________
Why are they different?
1.7 GEOMETRY AND MEASUREMENT. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:

1.7(E) Tell time to the hour and half hour using analog and digital clocks.

1.7E What Time Is It? Our assessment team offered two methods of assessing this skill.

- Verbally: The students are shown a clock and asked to tell the time to the teacher. (This would be more of a performance task. The same sheet of clocks could be used, or a Judy Clock.)
- Written: Please note that the standard does not specify that the students should be able to write the time. (The verb used is “tell.”) This tool provides one way to assess this skill in a large group format.

1.7E Matching Times This assessment tool asks students to match a digital clock, analog clock and the symbolic representation of time. Students cut apart the pieces, match the set, and glue them to a new sheet. After the student submits his/her work, it would be important to point to a clock on the sheet and ask the student to “tell” the time on the clock!
What Time Is It?
Tell the teacher the time on each CLOCK!

1.7E Tell time to hour and half hour
What Time Is It?
Write the time shown on each CLOCK!

1.7E Tell time to hour and half hour
Matching Times  Cut apart the boxes. Find three ways to show the same time. Glue the matching sets in the boxes on the “Matching Times” sheet.

<table>
<thead>
<tr>
<th>7:00</th>
<th>11:30</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Clock 7:00" /></td>
<td><img src="image2" alt="Alarm 11:30" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11:30</th>
<th>7:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Clock 11:30" /></td>
<td><img src="image4" alt="Alarm 7:00" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6:30</th>
<th>10:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="Clock 6:30" /></td>
<td><img src="image6" alt="Alarm 10:00" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10:00</th>
<th>6:30</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7" alt="Clock 10:00" /></td>
<td><img src="image8" alt="Alarm 6:30" /></td>
</tr>
</tbody>
</table>

1.7E Tell time to hour and half hour
Matching Times Sheet  Glue the matching sets in the boxes.

1.7E Tell time to hour and half hour
1.8 DATA ANALYSIS. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:

1.8(A) Collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts.

1.8(B) Use data to create picture and bar-type graphs.

1.8A and 1.8B were combined for this assessment tool. We provided pictures that may be cut apart in advance and kept in plastic bags till needed. These pictures were selected because they lend themselves to a variety of categories that will be determined by the students. (Real objects may be used in place of the pictures if preferred.)

- Give the students a set of pictures and a data collection template (frequency table). Two templates are provided.
  - T-Chart: Students sort the pictures and count the total number of pictures in each category. (The total is determined by counting pictures.)
  - Tally Chart: Students keep a running total by marking tally marks as they count. (The total is determined by counting tally marks.)

- Using the totals for each category, students create a graph to represent the data. Two types of graph templates are provided.
  - Picture Graph: For the picture graph, students glue the pictures in the cells beginning at the bottom.
  - Bar Graph: For the bar graph, students write in the title and categories, then color or shade the correct number of boxes beginning at the bottom of each bar.
1.8A, 1.8B Collect, sort, & organize data and create bar or picture graph (animals)
1.8A, 1.8B Collect, sort, & organize data and create bar or picture graph (transportation)
1.8A, 1.8B Collect, sort, & organize data and create bar or picture graph (geometric shapes)
# Collecting, Sorting, and Organizing Data

Select three categories for your data collection. Write the categories on the left. Count the number in each category. (You may use tally marks to keep track of the amounts.) Write the total number on the right.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Tally Marks</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.8A, 1.8B Collect, sort, & organize data and create bar or picture graph (tally mark frequency table)
**COLLECTING, SORTING, AND ORGANIZING DATA**

Select three categories for your data collection. Write the categories on the left. Count the number in each category. (You may use tally marks to keep track of the amounts.) Write the total number on the right.

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.8A, 1.8B Collect, sort, & organize data and create bar or picture graph (t-chart for frequency)
1.8A, 1.8B Collect, sort, & organize data and create bar or picture graph (picture graph)
1.8A, 1.8B Collect, sort, & organize data and create bar or picture graph (bar graph)
1.8 DATA ANALYSIS. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:

1.8(C) Draw conclusions and generate and answer questions using information from picture and bar-type graphs.

1.8C builds upon the understanding of graphical representations that students develop in 1.8A and 1.8B. For this standard, the focus is not upon creating data representations, but instead is on drawing conclusions and generating/answering questions from graphs. Higher order thinking is involved in this standard.

1.8C Popcorn Sales: Students answer questions using information in the graph. Questions 1-3 are one-step questions similar to those they are expected to write. Questions 4 & 5 require the students to draw conclusions. Question 6 asks the students to generate and solve a question about the graph.

1.8C Fruity Fun! Students answer a simple question (#1) about the information in the graph. The second item asks the students to write and answer their own question about the graph. Items 3-4 ask the student to draw conclusions based upon the graph.
1. When were the most bags of popcorn sold? _________________________

2. When were the least bags of popcorn sold? _________________________

3. How many more bags of popcorn were sold at 11:00 than at 9:00? ______

4. Why might more bags of popcorn be sold at 11:00 than at 9:00?
   ____________________________________________________________________

5. A worker popped 30 bags of popcorn early Saturday morning. Did he pop enough popcorn for all four game times? _________________________________
   Explain. __________________________________________________________________

6. Write and answer a question about the popcorn graph. _________________
   ____________________________________________________________________
   Answer: ________________

1.80 Draw conclusions and generate and answer questions from graphs
Fruity Fun! The lunchroom offered three types of fruit with lunch on Monday. The graph shows which fruit students in one class selected.

1. Which type of fruit was selected by the greatest number of students?

2. Write and answer a question based upon the information in the graph.

   ____________________________________________________________

   ANSWER: ___________

3. The next day, the lunchroom served only 2 types of fruit. Based upon the information in the graph, which two types of fruit should have been served? Explain your reasoning.

4. One worker said that the number of oranges selected was more than the number of apples and bananas combined. Do you agree? Defend your answer.

1.8C Draw conclusions and generate and answer questions from graphs
1.9 PERSONAL FINANCIAL LITERACY. The student applies mathematical process standards to manage one’s financial resources effectively for lifetime financial security. The student is expected to:

1.9(A) Define money earned as income.

1.9(B) Identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs.

1.9(C) Distinguish between spending and saving.

1.9(D) Consider charitable giving.

1.9A Understanding Income: This assessment tool can be used in a large group setting. Students read a story about a child earning income. The students identify the income in the story and what each child did to earn the income.

1.9B Decisions! Decisions! This assessment tool may be used in a large group setting. Students are asked questions that concern choices people make about using money they earned.

1.9C Spend or Save? Students are given six cards and a t-chart for sorting the cards into examples of spending or saving. This tool can be used in a large group setting.

1.9D Charitable Giving The standard states that students should “consider charitable giving,” so we provided different types of charities that can be found in Waco. Students simply put a check in the boxes to indicate which charities they would consider giving to in the future.
**UNDERSTANDING INCOME**

Read each story and answer the questions about income.

Dan opened a lemonade stand. His parents provided lemonade and cups for the stand. At the end of the first day, Dan made $6 by selling lemonade.

What was Dan’s INCOME? _______________________________________

What did Dan do to earn money? _______________________________________

Joey washed three cars on Saturday. Joey used soap, sponges, towels, and water at his house. Joey charged $3 for each car that he washed. By the end of the first day, Sallie made $9 by washing cars.

What was Joey’s INCOME? _______________________________________

What did Joey do to earn money? _______________________________________

Matt was a pet sitter for his neighbor’s dog while they were out of town. Matt was paid $2 a day to give fresh food and water to the dog. At the end of the week, Matt made $10 as a pet sitter.

What was Matt’s INCOME? _______________________________________

What did Matt do to earn money? _______________________________________

1.9A Understand income as money earned
DECISIONS! DECISIONS!

1. Claire made $20 doing yard work for her parents during July.

What are two things that Claire could do with the $20 she earned?

_______________________           ______________________

2. Max earned $10 one week as a dog walker for a neighbor. Max made a list of the things he might do with his income and wrote a reason for each. CIRCLE the choices that are NEEDS.

<table>
<thead>
<tr>
<th>Video game</th>
<th>New Shoes</th>
<th>Lunch Money</th>
<th>Action Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like the new game my friend has.</td>
<td>My shoes are too small for me now.</td>
<td>My lunch money is almost gone.</td>
<td>I lost my favorite action figure.</td>
</tr>
</tbody>
</table>

3. Misty wants to buy beads to make bracelets for her friends. The beads she picked out cost $2. What is one way that Misty could earn $2 so that she could buy the beads she wants?

________________________________________________________________________
________________________________________________________________________

4. Suppose you earned $12 doing chores. List three things you might like to do with your money.

___________________________   __________________________
___________________________

1.9B Identify uses of income, including purchasing wants and needs
**Spend or Save?**

Cut apart the cards. Determine if each card shows SPENDING or SAVING. Glue the cards under the correct title.

<table>
<thead>
<tr>
<th>SPENDING</th>
<th>SAVING</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Piggy Bank" /> Bill put his money into his piggy bank.</td>
<td><img src="image" alt="Ticket" /> Meg bought two tickets to a movie.</td>
</tr>
<tr>
<td><img src="image" alt="Bank" /> Mia gave her money to her mother to keep in the bank.</td>
<td><img src="image" alt="Safe" /> Jade locked her money in a metal box for later.</td>
</tr>
<tr>
<td><img src="image" alt="Book" /> Dez paid for a book.</td>
<td><img src="image" alt="Sandwich" /> Nick ordered a sandwich at a restaurant.</td>
</tr>
</tbody>
</table>

1.9C Distinguish between spending and saving
**CHARITABLE GIVING**

- Check the boxes that show types of charitable giving that you might be interested in giving to or helping with one day.

<table>
<thead>
<tr>
<th>Type of Giving</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animals that need a home and health care</td>
<td>Examples: Fuzzy Friends Rescue, Humane Society Animal Shelter</td>
</tr>
<tr>
<td>People who do not have enough money to take care of themselves</td>
<td>Examples: Mission Waco, Goodwill, Salvation Army</td>
</tr>
<tr>
<td>Keeping our environment cleaner and healthier</td>
<td>Example: Keep Waco Beautiful</td>
</tr>
<tr>
<td>Senior citizens with needs</td>
<td>Example: Meals and Wheels, Friends for Life, Central Texas Senior Ministry</td>
</tr>
<tr>
<td>Military people who were injured</td>
<td>Examples: Wounded Warrior, Disabled American Veterans</td>
</tr>
<tr>
<td>Babies with health problems and other needs</td>
<td>Examples: Talitha Koun, March of Dimes</td>
</tr>
<tr>
<td>People who need help after a natural disaster</td>
<td>Examples: American Red Cross</td>
</tr>
<tr>
<td>People with special needs and health needs</td>
<td>Examples: Special Olympics, American Cancer Society</td>
</tr>
<tr>
<td>People who need a place to live</td>
<td>Example: Habitat for Humanities, Neighborhood Housing Services of Waco</td>
</tr>
<tr>
<td>Children who face difficulties</td>
<td>Examples: World Vision, Samaritan’s Purse, Angel Tree, Boys/Girls Clubs, Big Brothers/Sisters</td>
</tr>
<tr>
<td>Groups that work together to meet different needs</td>
<td>Example: United Way, Local Churches</td>
</tr>
</tbody>
</table>

1.9D Consider charitable giving