Using Assessment Data: Learning from Tennessee’s Grade 2 Assessments

Presented by:
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Tennessee’s Grade 2 Optional Assessment:

The Purpose:
The optional grade 2 assessment was created in order to help schools and districts measure their progress toward the state’s goal of having 75 percent of third graders reading on grade level by 2025. The Grade 2 Optional Assessment provides invaluable data to both second and third grade educators, ensuring that our youngest students are strengthening foundational literacy and math skills early in their academic careers.

Instructional Priorities:
- Reflective of the expectations of the standards
- Representative of the integrated approach to instruction
- Inspire changes in classroom instruction

Assessment Key Points:
- The Grade 2 assessment is optional.
  - Spring 2017
    - During the spring 2017 launch, 98 districts across the state chose to opt into the new assessment (66% of districts)
  - Spring 2018
    - 102 districts opted in (69% of districts)
  - Spring 2019
    - 106 districts opted in (72% of districts)
- The Grade 2 Assessment is criterion referenced as opposed to norm referenced.
- The Grade 2 Assessments only assess Tennessee Academic Standards.
  - The data provide teachers, leaders, parents, and community members information on how our students are performing at the end of their second-grade year on Tennessee-specific standards.
  - The data are highly beneficial in determining how students are progressing toward mastering the standards because the assessment addresses the full breadth of the TN Academic Standards for both ELA and Mathematics.
  - The items on the Grade 2 Optional Assessment measure the ELA and mathematic standards in a way that reflect the expectations for integrated classroom instruction.
Reflections from the Field:

- “We feel the assessment will give much needed feedback to teachers and administrators concerning the progress of our second grade students. Additionally, it will allow us to better meet the needs of those students as we plan for their instruction.”
- “Rutherford County is committed to the second grade assessment because of the feedback we receive relative to our instructional initiatives and feedback on student achievement. This individual student academic information that we receive at the end of the second grade year helps us to better target identified deficit standards for each student. Since the goal is for seventy-five percent of third grade students to be on grade level, summative information related to second grade performance enhances our system’s Response to Intervention and Instruction initiatives in the third grade.”

Grade 2 Successes and Challenges:

English Language Arts

Successes:

- Overall, students are able to grapple with complex text, both literary and informational, with equal success.
- Students’ abilities to read and respond to both literary and informational text are comparable between the two genres.
- Students demonstrate the ability to determine the meaning of unknown words and phrases in both literary passages and informational text.
- There are little to no differences between students’ abilities to apply their foundational literacy skills to either literary passages or informational text.

Challenges:

- Students performed better on determining the central message/main topic of a text when dealing with literary text versus informational text.
- Students performed significantly better when responding to items associated with literary listening passages versus informational listening passages.
- Students were able to respond to items dealing with sentence composition (conventions of standard English grammar and usage) with a higher rate of accuracy than items associated with phonics and word recognition skills.
Mathematics

Success:

- Students performed equitably on items whether read to them when compared to the items they read to themselves.

Challenges:

- Students’ performance indicated that students were challenged by performing computations with whole numbers.
- Students demonstrated a need to solidify an understanding of addition and subtraction strategies, place value, and the connection between place value and addition and subtraction.
- Students were found to perform better on the non-major work of the grade when compared to content identified as major work of the grade.
- The challenges found in grade 2 are also found in subsequent grades.
  - Grade 2 students were challenged by content requiring they demonstrate a conceptual understanding of addition and subtraction and fluency in addition and subtraction. At grade 3, students were challenged by demonstrating fluency in addition and subtraction.
  - Grade 2 students found applying operations to real life situations (i.e., contextual problems involving addition and subtraction, contextual problems involving lengths) to be a source of challenge, and this trend continued at grade 3 where students were asked to apply operations to real life situations (i.e., connecting multiplication and area).
  - Grade 2 students were challenged by foundational place value understanding, and at grade 4 students were found to be challenged by content requiring students to generalize place value understanding.

Tennessee Department of Education Early Literacy Initiatives:

- **Mathematics Instructional Focus Documents**: To support strong classroom instruction, the Department has created instructional focus documents for mathematics. These documents were developed to target the mathematics standards where statewide data indicated students struggled the most. These are optional supplements for educators to consider. The purpose of these documents is to provide teachers with examples of learning across all performance levels to help educators determine the depth of a student’s conceptual understanding of Tennessee mathematics standards.
- **Teaching Literacy in Tennessee**: The Department released a practical guidance document called *Teaching Literacy in Tennessee*, which serves as the Department’s “how to” resource for teaching literacy.

- **Read to Be Ready**: Read to Be Ready is a statewide campaign focused on the importance of reading. The goal of the Read to Be Ready initiative is to increase third grade reading proficiency in the state to 75 percent by 2025 through Read to Be Ready resources and networks of support.

- **Read to Be Ready Coaching**: The Read to Be Ready Coaching Network involves a cohort of highly-qualified and trained instructional coaches deployed to improve literacy instruction in K – 3 classrooms across the state.

- **Read to Be Ready Summer Camps**: The purpose of the Read to Be Ready Summer Grant is to fund programs that target low-income students whom we know experience the greatest summer learning loss. The grants are intended to fund summer instructional programs that provide rich reading and writing opportunities for rising first, second, and third grade students. The goal is to *develop* a student’s love for reading over the summer months by providing them with access to a multitude of high-quality books at different levels and for different interests.
English/Language Arts Item Types

Reading
• 1-point multiple-choice items
• Passage-based items

Foundational Literacy
Phonics and Word Recognition (Based on words from a reading passage)
• 2-point multiple-select items
Vocabulary Acquisition (Based on words from a reading passage)
• 1-point multiple-choice items
Word Composition and Sentence Composition (Based on sentences about a reading passage)
• 1-point multiple-choice items

Fluency
• 5-point timed item
• Requires reading as many sentences as possible and identifying each as true or not true

Sample Fluency Sentences:
Red is a color.
Birds can breathe under water.
Bread is a kind of food.
The alphabet is made up of letters.
Ice will melt when it gets very cold.
A snake can walk.

Listening
Sentence-based
• 1-point multiple-choice items
• Graphic answer choices
• Sentences and questions read to students

Passage-based
• 1-point multiple-choice items
• Some have graphic answer choices
• Some have text answer choices
• Passages, questions, and text answer choices read to students

Writing
• 5-point writing prompt
• Prompt is based on ideas in a short reading passage that is read to students.
• Requires students to write a response that is at least three or four sentences to answer two passage-related questions.
Mathematics Item Types

Non-Contextual Fluency

• 1-point item; aligned to a single standard
• Fill-in-the-blank and multiple-select formats

Multiple Choice

• 1-point item; aligned to a single standard

Multi-part

• 2-point item; aligned to a single standard
• Contains multiple parts

Assessment Blueprints

<table>
<thead>
<tr>
<th>Literary Assessment</th>
<th>Informational Assessment</th>
</tr>
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<tbody>
<tr>
<td>Reading 26-32%</td>
<td>Reading 26-30%</td>
</tr>
<tr>
<td>Writing 8-10%</td>
<td>Writing 8-10%</td>
</tr>
<tr>
<td>Listening 20%</td>
<td>Listening 19%</td>
</tr>
<tr>
<td></td>
<td>Fluency 8-10%</td>
</tr>
</tbody>
</table>

Foundational Literacy Items appear with both Literary and Informational 38-43%

Total number of items across literacy and informational items: 28-47*

Mathematics

Computation with Whole Numbers 27-31%
Number Relationships and Patterns 22-26%
Measurement Concepts 20-25%
Data and Geometric Concepts 13-19%

Total number of items: 45-53 items*

*Information drawn from publicly available blueprints.
Sample of Released Items
from the
Tennessee Comprehensive Assessment Program
TCAP Grade 2

Prepared for the 2019 National Conference on Student Assessment:
Using Assessment Data: Learning from Tennessee’s Grade 2 Assessments

Presented by: Sandy S. Qualls, Tennessee Department of Education
Joanne L. Jensen, WestEd
Literary Reading Passage

A New Day

1. Sofia is a little tired of always doing the same thing. “Sometimes,” thinks Sofia, “it seems like everything around me is boring. Tomorrow, I will find a way to make my day more fun.”

2. Sofia wakes up the next day and decides to do four new things.

3. Sofia always eats cereal for breakfast. Today, she eats a grapefruit, instead. “Yum!” says Sofia, as she chews on the juicy grapefruit slice. It is a sour new breakfast.

4. Sofia always walks to school. Today, she hops all the way to school on one foot. “Hop, hop, hop,” says Sofia, as she lands on her left foot. “Hop, hop, hop,” she says again, as she switches to her right foot. It is a bouncy new way to go to school.

5. During recess, Sofia always plays tag. Today, she hangs upside down from the bars. “Whee!” squeals Sofia, as she swings to and fro, to and fro. It is a new way to see the world.

6. Sofia goes to bed early. She has never done that before! The excitement makes it difficult to go to sleep, but Sofia wants to wake up early tomorrow so that she can do even more new things.
128387

Why does Sofia decide to try new things?

A  She is bored.
B  She is out of cereal.
C  She is sleepy.
D  She is alone at recess.

128392

What does the picture help the reader understand?

A  why Sofia says “Wheee!”
B  what Sofia always plays at recess
C  why Sofia goes to bed early
D  what Sofia will do tomorrow

128390

How does Sofia feel at the end of the day?

A  dizzy
B  nervous
C  excited
D  hungry

128389

What lesson does Sofia learn?

A  Eating juicy fruit is sticky.
B  Going to bed early is smart.
C  Hopping to school is hard.
D  Doing new things is fun.
128398

Read this sentence about the passage.

Sofia spends recess by ___________.

Which word makes this sentence correct?

A. myself
B. herself
C. yourself
D. ourselves

128399

Read this sentence about the passage.

Sofia squeals the ____________ of everyone as she swings.

Which word makes this sentence correct?

A. loud
B. louder
C. loudest
D. loudly
128400

Read this sentence about the passage.

_________ tried four new things.

Which word makes this sentence correct?

A. Shed
B. She’d
C. Sh’ed
D. Shed’

128394

Which two words from the passage have a long vowel sound? Choose two correct answers.

A. same
B. thing
C. next
D. see
E. done

128396

Which two words from the passage have a long vowel sound? Choose two correct answers.

A. never
B. recess
C. instead
D. decides
E. switches
Which **two** words from the passage have the **same** vowel sound as **seems**? Choose **two** correct answers.

- A. breakfast
- B. cereal
- C. instead
- D. eats
- E. early
Informational Reading Passage

“Cool” Clothes

1 Did you know that the color of your clothes can make a difference in how cool you stay? It is true, at least when you are outdoors on a sunny day.

2 You see, color soaks in sunlight, which then becomes heat. If you wear a black shirt, that shirt will soak in much light. The warm shirt will make your body become warmer.

3 On the other hand, a white shirt will keep your body cooler. This is because a white shirt has no color to soak in the heat. Instead, the shirt turns away sunlight. The light bounces off of the shirt. This means that less heat reaches your body.

4 So the rule is, the darker a shirt is, the warmer you are likely to feel. The lighter a shirt is, the cooler you are likely to feel. Now you know why people often wear light-colored clothing in the summer and darker clothing in the winter!

128454

What does the picture add to the information in the passage?

○ It shows how hot it gets on a sunny day.
○ It shows how clothing soaks up light.
○ It shows an example of an outfit to help you stay cool.
○ It shows the difference between summer and winter.
**128452**

What is a result of wearing a white shirt on a sunny day?

- Your body becomes warmer.
- More light reaches your body.
- Your body becomes sweaty.
- Less heat reaches your body.

**128460**

What is the meaning of the phrase *bounces off* in paragraph 3?

- spreads through
- changes to
- turns away
- hides from

**128453**

What is the author’s purpose in the passage?

- to compare different ways of making shirts
- to explain what happens when wearing different-colored clothes
- to describe which clothes are best to wear indoors
- to give rules about how people should dress
Read this sentence from paragraph 4.

The lighter a shirt is, the cooler you are likely to feel.

Which reason does the author give to explain what this sentence says?

A. Light-colored clothing turns away sunlight.
B. Light-colored clothing is made from thin fabrics.
C. Light-colored clothing causes your skin to sweat.
D. Light-colored clothing has a loose fit.

Read this sentence about the passage.

Yesterday, I _________ a short-sleeved shirt.

Which word makes this sentence correct?

A. weared
B. worn
C. wore
D. wored
128463

Read this sentence about the passage.

The sun feels _________ in the summer than it feels in the winter.

Which word makes this sentence correct?

- hot
- hotter
- hottest
- hotly

128464

Read this sentence about the passage.

You _________ get hot if you wear the right clothing.

Which word makes this sentence correct?

- wont
- won’t
- wo’n’t
- wont’
Imagine that your friend wants to wear a long-sleeved black shirt on a very hot day. Do you think it is a good idea for your friend to wear black on a very hot day? Why or why not?

Write 3 or 4 sentences to answer the questions. Do you think it is a good idea for your friend to wear black on a very hot day? Why or why not? Provide evidence (information) from the passage to support your answers.

Be sure to:

- Answer the questions completely.
- Write at least 3 or 4 complete sentences.
- Use evidence from the passage.
- Use correct spelling and grammar.
- Use correct capitalization and punctuation.

Take a few minutes to think about the passage and the questions so that you can plan your answers before you begin to write. You may read the passage and the writing prompt again to yourself. Write your answers on the next two pages in your test booklet. You may use as much space as you need.
## Directions
Read each sentence. Mark YES if the sentence is true. Mark NO if the sentence is not true. Fill in the circle within the box. Start when you hear GO. Then do as many as you can until you hear STOP.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>Red is a color.</td>
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<td>o</td>
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<tr>
<td>Ice will melt when it gets very cold.</td>
<td>o</td>
<td>o</td>
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<tr>
<td>A snake can walk.</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Nickels and dimes are money.</td>
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<td>o</td>
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<td>Zebras have orange and white stripes.</td>
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<td>o</td>
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<td>An elephant is smaller than a mouse.</td>
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<td>o</td>
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<tr>
<td>The grade that comes after second is third.</td>
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<td>o</td>
</tr>
<tr>
<td>Trains travel on tracks.</td>
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<td>o</td>
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<tr>
<td>Adults are older than children.</td>
<td>o</td>
<td>o</td>
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<tr>
<td>A whale is a tiny animal.</td>
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<tr>
<td>The sun goes down in the morning.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>A kitchen is a room in a house.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Ice cream is hot.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>A circle is a shape.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>People use their ears to hear.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>A shout is louder than a whisper.</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Babies take care of doctors who are sick.</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
SAY Elephants sleep for only two or three hours a day and spend the rest of their time eating plants.

Pause.

SAY Which picture shows what elephants do for most of the day?

Pause while students mark their answer.
Listening Passage

[Test Administration Script]

SAY Now listen carefully to a passage. The title is “Frank’s Ice Pops.”

Frank Epperson was just eleven years old when he made the first frozen ice pop. He made a drink by mixing a sweet powder with water. One cold night, he left his drink outside. The next morning, Frank’s drink was frozen solid. The wooden stick that he used to stir the drink was still in the glass. Frank put the glass in hot water. Then he used the stick as a handle to pull out the ice pop. Frank liked that he did not need a spoon or a fork to eat his new treat. Frank’s friends loved his ice pops, especially the cherry flavor. He knew other people would like them too.

Pause.
[Test Administration Script]

**SAY** Which picture shows what Frank did first after he found his frozen drink?

*Pause while students mark their answer.*
[Test Administration Script]

SAY  Which picture shows where Frank left his drink overnight?

Pause while students mark their answer.
## English Language Arts Item Data

<table>
<thead>
<tr>
<th>Passage Title</th>
<th>Item Label</th>
<th>Standard</th>
<th>Item Type*</th>
<th>DOK</th>
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*Item Type*

MC = Multiple Choice

MS = Multiple Select

Y/N = Yes/No
A bucket has 40 cups of water in it. The bucket is not full.

A. Owen pours 21 cups of water from the bucket onto his flowers. Write an equation to show how many cups of water are now in the bucket.

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]

B. Owen then pours 45 cups of water into the bucket so that it is full. How many cups of water are in the bucket when it is full?

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]
**127975**

Which sums and differences are equal to 12? Choose the **two** correct answers.

- A 4 + 9
- B 7 + 5
- C 20 – 8
- D 18 – 16
- E 16 + 4

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**127974**

Fill in each box with the number that makes the equation **true**.

- 16 – 8 = 
- 13 – 10 = 
- 8 + 9 = 
- 12 + 2 =
Betty starts counting at 618. She counts by hundreds. What two numbers does Betty count next?

- 619, 719
- 628, 638
- 718, 818
- 718, 719

A number in this number sentence is missing.

\[ 247 > \square \]

Which number could be put in the box to make the number sentence true?

- 358
- 336
- 270
- 239
Beck uses this number sentence to compare 561 and 823.

561 < 823

Which sentence tells why the number sentence is right or wrong?

- Since 61 is greater than 23, the number sentence is wrong.
- Since 6 tens is greater than 2 tens, the number sentence is wrong.
- Since 1 is less than 3, the number sentence is right.
- Since 5 hundreds is less than 8 hundreds, the number sentence is right.
**127968**

Which equations are **true**? Choose the **two** correct answers.

- (A) $80 - 33 = 47$
- (B) $76 + 10 = 87$
- (C) $75 - 15 = 50$
- (D) $62 + 8 = 70$
- (E) $60 - 29 = 49$

**127982**

Find each difference. Write the difference in the box.

```
  77
- 38
  --
  39
```

```
  46
- 21
  --
  25
```
SAY Cathy has 28 stickers. Mike has 15 stickers.

A. Which of these can be used to find how many more stickers Cathy has than Mike has?

Answer A: \(28 - 10 - 5\)
Answer B: \(28 - 10 + 5\)
Answer C: \(28 + 10 - 5\)
Answer D: \(28 + 10 + 5\)

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]

SAY B. How many more stickers does Cathy have than Mike has?

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]
SAY  Use the centimeter side of your ruler to measure the length of this marker.

Pause while students measure the length of the marker.
[Suggested Wait Time: 10 seconds]

SAY  What is the length of the marker, to the nearest centimeter?

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]

Use the centimeter (cm) side of your ruler to measure the length of this marker.

What is the length of the marker, to the nearest centimeter?

A  12
B  13
C  14
D  15
[Test Administration Script]

**SAY** The length of the pencil is shown in paper clips.

*Pause while students look at the figure.*
* [Suggested Wait Time: 5 seconds]

**SAY** Use the inch side of your ruler to measure to the nearest inch. Measure the length of the pencil.

A. Fill in each box to tell how long the pencil is.

*Pause while students fill in each box.*
* [Suggested Wait Time: 1 minute]

**SAY** B. In each box, circle the word that makes the sentence true.

Each paper clip is [longer or shorter] than an inch.

It takes [more or fewer] paper clips than inches to measure the pencil.

*Give the students time to answer the question.*
* [Suggested Wait Time: 1 minute]
The length of the pencil is shown in paper clips.

Use the inch (in) side of your ruler to measure to the nearest inch. Measure the length of the pencil.

A. Fill in each box to tell how long the pencil is.

- paper clips long
- inches long

B. In each box, circle the word that makes the sentence true.

Each paper clip is shorter than an inch.

It takes more paper clips than inches to measure the pencil.
127993

[Test Administration Script]

SAY  Heath is using a fork to eat dinner. About how many centimeters long is a fork?

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]

Heath is using a fork to eat dinner. About how many centimeters long is a fork?

- 5
- 20
- 50
- 100

128023

[Test Administration Script]

SAY  Pilar has 100 centimeters of ribbon. She gives two friends some ribbon. Here are the lengths of the ribbon she gives her friends.

- 28 centimeters
- 51 centimeters

Which set of equations shows a way to find how many centimeters of ribbon Pilar has left?

Answer A: 100 – 28 = 72; 72 – 51 = [box]
Answer B: 100 – 28 = 72; 72 + 51 = [box]
Answer C: 100 + 28 = 128; 128 – 51 = [box]
Answer D: 100 + 28 = 128; 128 + 51 = [box]

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]
Pilar has 100 centimeters of ribbon. She gives two friends some ribbon. Here are the lengths of the ribbon she gives her friends.

- 28 centimeters
- 51 centimeters

Which set of equations shows a way to find how many centimeters of ribbon Pilar has left?

A) \[
\begin{align*}
100 - 28 &= 72 \\
72 - 51 &= \_
\end{align*}
\]

B) \[
\begin{align*}
100 - 28 &= 72 \\
72 + 51 &= \_
\end{align*}
\]

C) \[
\begin{align*}
100 + 28 &= 128 \\
128 - 51 &= \_
\end{align*}
\]

D) \[
\begin{align*}
100 + 28 &= 128 \\
128 + 51 &= \_
\end{align*}
\]
SAY Which clock shows 5:10?

*Give the students time to answer the question.*

[Suggested Wait Time: 1 minute]
Roger has 37¢. Which set of coins could Roger have?

A

B

C

D

SAY Roger has 37 cents. Which set of coins could Roger have?

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]
**SAY** Use the inch side of your ruler to measure to the nearest inch. Measure the length of each straw.

*Pause while students measure the length of each straw.*

*Suggested Wait Time: 30 seconds*

**SAY** Which line plot shows the lengths of the straws?

*Give the students time to answer the question.*

*Suggested Wait Time: 1 minute*
Use the inch (in) side of your ruler to measure to the nearest inch. Measure the length of each straw.

Which line plot shows the lengths of the straws?

**Straw Lengths**

- A: \(\times\) \(\times\) \(\times\)
  - Number of Inches: 2, 3, 4, 5, 6

- B: \(\times\) \(\times\) \(\times\) \(\times\)
  - Number of Inches: 2, 3, 4, 5, 6

- C: \(\times\) \(\times\) \(\times\)
  - Number of Inches: 2, 3, 4, 5, 6

- D: \(\times\) \(\times\) \(\times\)
  - Number of Inches: 2, 3, 4, 5, 6
The bar graph shows the favorite fruits of some students in a class.

Pause while students read the bar graph.
[Suggested Wait Time: 15 seconds]

A. How many students all together have a favorite fruit of apple, orange, or pear?

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]

B. Banana is the favorite fruit of 5 students in the class. Finish this bar graph by drawing a bar for banana.

Give the students time to answer the question.
[Suggested Wait Time: 1 minute]
The bar graph shows the favorite fruits of some students in a class.

**Favorite Fruits**

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<thead>
<tr>
<th>Fruit</th>
<th>Number of Students</th>
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<td>Apple</td>
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<tr>
<td>Orange</td>
<td>7</td>
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<td>Pear</td>
<td>8</td>
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<tr>
<td>Banana</td>
<td>1</td>
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</table>

A. How many students all together have a favorite fruit of apple, orange, or pear?
B. Banana is the favorite fruit of 5 students in the class. Finish this bar graph by drawing a bar for banana.

**Favorite Fruits**

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<td>Pear</td>
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<td>Banana</td>
<td>5</td>
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What shape has 6 angles?

- □ hexagon
- □ quadrilateral
- □ triangle
- □ pentagon
SAY Which circle shows three thirds?

*Give the students time to answer the question. [Suggested Wait Time: 1 minute]*
### Mathematics Item Data

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*Item Type

MC = Multiple Choice

MS = Multiple Select