SAVVAS
LEARNING COMPANY

15 E Midland Ave St 502
Paramus, NJ, 07652-2938
United States

Nov 17, 2023

Savvas Learning Company -Statement Regarding Complete Coverage of OAS in K-2 Materials Review

The *enVision Mathematics Oklahoma* K-12 curriculum was developed specifically to ensure 100% coverage of the Oklahoma Academic Standards (OAS). For grades K-8, full coverage of the OAS can be found in the below core materials that committee members received:

- Student Editions - includes Volume 1, Volume 2, and Student Edition Companion
- Teacher Editions - includes Volume 1, Volume 2, Oklahoma Teacher Edition Tabs and Teacher Edition Program Overview

After reviewing the completed High Quality Instructional Materials rubric for *enVision Mathematics Oklahoma*, there are inaccuracies in the review related to standard alignment, as well as a potential misunderstanding of the program components. Both negatively impacted the review.

1.) Inaccuracies in Criterion 1.1. - Alignment to the Oklahoma Academic Standards
Three specific content gaps were identified by the reviewers, but all three are fully covered in the curriculum, as detailed below:

- Criterion 1b - In regard to OAS 1.N.1.4 and 1.N.1.5, the reviewer commented that "The curriculum offers students the chance to explore patterns, number relationships, and various mathematical models. **However, it overlooks the requirement for first-grade students to count by 2's or 5's."**

  enVision Mathematics Oklahoma explicitly meets this standard requirement at Grade 1, as evidenced by Grade 1 lesson OK-4, which is titled "Count by 2's and 5's to 100".
  - This lesson was in reviewer materials, and can be found in the Student Edition Companion on pages OK-7 and OK-8.
  - Instruction for this lesson can be found in the Teacher Edition Program Overview on page 129

  Note that we have also included lesson images on the attached pages for your ease of review.

- Criterion 1c - In regard to OAS 2.GM.3.2, the reviewer commented that "Second-grade students are prompted to tell time to the 5-minute mark, diverging from the quarter-hour requirement set by the Oklahoma standards.."
  enVision Mathematics Oklahoma explicitly meets this standard at Grade 2, as evidenced by Grade 2 lesson 8-7 which is titled "Tell Time Before and After the Hour". There is an additional lesson, as noted by the reviewer, titled "Tell and Write Time to Five Minutes", but **this lesson is optional and can be used, if desired, as an opportunity for extension.**

• Lesson 8-7 was in reviewer materials, and can be found in the Student Edition, Volume 1 on pages 353-356.
• Instruction for this lesson can be found in the Teacher Edition, Volume 1 on pages 353A-356B.

Note that we have also included lesson images on the attached pages for your ease of review.

- Criterion 1d - In regard to OAS 1.D.1.2 and 1.D.1.3, **the reviewer commented that "...bar graphs, required in first grade, only appear in the curriculum in second grade."**

  enVision Mathematics Oklahoma fully covers this standard at the required grade, as evidenced by Grade 1 lessons OK-1 and OK-2, which are titled "Create Bar Graphs" and "Interpret Bar Graphs".
  • This lesson was in reviewer materials, and can be found in the Student Edition Companion on pages OK-1, OK-2, OK-3, and OK-4.
  • Instruction for this lesson can be found in the Teacher Edition Program Overview on pages 126-127.

  Note that we have also included lesson images on the attached pages for your ease of review.

The 3 examples above illustrate that although *enVision Mathematics Oklahoma* fully addresses the OAS at each grade as intended, there were inaccuracies in how the reviewers scored the criterion. Should these criteria have been accurately scored, the Criterion 1.1 subtotal should have been sufficient to move forward to Gateway 2 and 3 review.

2.) Misunderstanding of 3-Volume Core Materials

Throughout Gateway 1, reviewers consistently cite that all OAS are comprehensively covered by the curriculum, but in the same criterion will also state that the curriculum needs supplementary materials to align to the OAS. Examples of reviewer comments include:

- Criterion 1a. - "Although the curriculum comprehensively addresses all OAS for the Numbers and Operations strand with diverse models and high DOK levels, 18 lessons within this grade level rely solely on a small **supplemental Oklahoma workbook**.

- Criterion 1b. - " Although the curriculum thoroughly covers all OAS within this strand with diverse pattern-based tasks, graphics, and higher DOK levels, 7 algebraic reasoning lessons within this grade band rely on a small **supplemental Oklahoma workbook.**

- Criterion 1c. - "Within this strand, OAS are comprehensively covered, featuring varied tasks, enriched vocabulary, and higher DOK levels. However, 17 geometry and measurement lessons in this grade level rely on a small **supplemental Oklahoma workbook."**

- Criterion 1d. - " the curriculum covers all OAS within the data strand with diverse investigative tasks and data displays. 7 data and probability lessons for this grade level rely on a **small supplemental Oklahoma workbook."**

- Criterion 1e. - "**The standards are found in a separate companion book rather than being embedded in the material itself**....The curriculum supports Oklahoma Academic Standards, providing Scope and Sequences along with Mathematical Actions and Process details, as seen in the Program Overview on pages 86-101."

- Criterion 1f. - "The curriculum demonstrates strong progress and content connections. Alignment to specific Oklahoma Academic Standards (OAS) **requires supplementation.** Envision materials maintain consistency with the OAS progression and offer an Oklahoma addendum book for each grade, accompanied by a program overview that guides integration of added lessons. The curriculum encompasses all OAS, as detailed in the Scope and Sequences, which also incorporate Mathematical Actions and Processes."

As evidenced above, almost every criterion references that *enVision Mathematics Oklahoma* fully aligns to the Oklahoma Academic Standards and Coherence, and yet, then also references "supplemental materials" or "a need to supplement". It appears that reviewers may not have fully understood that this is a 3-volume student edition model, as well as a 3-volume teacher edition model. All 3 volumes are core to the instruction, and were provided to the reviewers–both in print and online–as they will be to students and teachers who adopt the curriculum. These materials are core to the program, as was presented to the committee, and should not be considered supplementary.

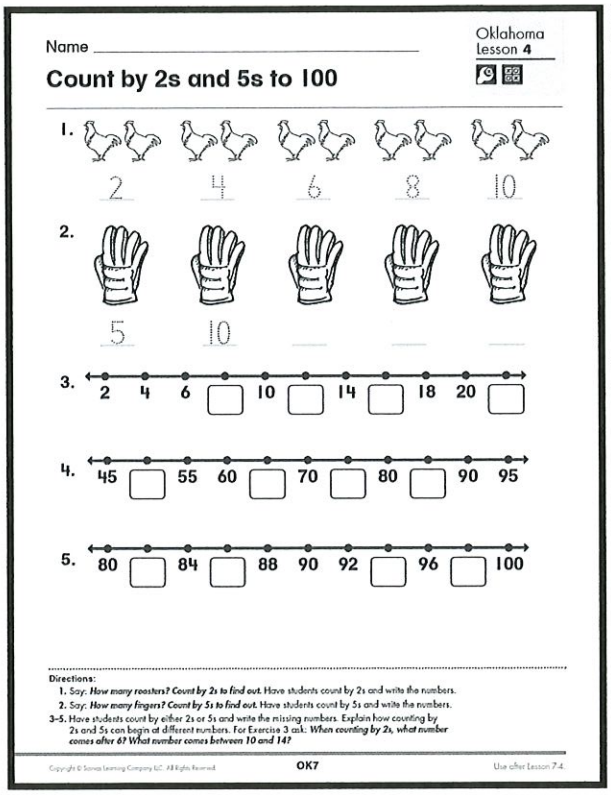
This 3-volume model, as well as the format and length of the student lessons and teacher support, is identical to *enVision Mathematics Oklahoma* Grades 3-5 and 6-8, both of which received a rating of "Exemplifies Quality".

This inconsistent review across grade bands points to a potential misunderstanding of the materials at K-2. Should the criteria have been accurately scored to reflect the comprehensive standards coverage provided by these core lessons–despite their placement in a 3rd volume–the Criterion 1 subtotal would have been sufficient to move forward to Gateway 2 and 3.

Sincerely,

Heidi Bruhn
Vice President, K-12 Math
Savvas Learning Company LLC

Grade 1, Lesson OK-4
"Counting by 2's and 5's to 100"



Name _____ Oklahoma Lesson 4

Count by 2s and 5s to 100

1. 2 4 6 8 10

2. 5 10 ___ ___ ___

3. 2 4 6 ☐ 10 ☐ 14 ☐ 18 20 ☐

4. 45 ☐ 55 60 ☐ 70 ☐ 80 ☐ 90 95

5. 80 ☐ 84 ☐ 88 90 92 ☐ 96 ☐ 100

Directions:

1. Say: ***How many roosters? Count by 2s to find out.*** Have students count by 2s and write the numbers.
2. Say: ***How many fingers? Count by 5s to find out.*** Have students count by 5s and write the numbers.

3–5. Have students count by either 2s or 5s and write the missing numbers. Explain how counting by 2s and 5s can begin at different numbers. For Exercise 3 ask: ***When counting by 2s, what number comes after 6? What number comes between 10 and 14?***

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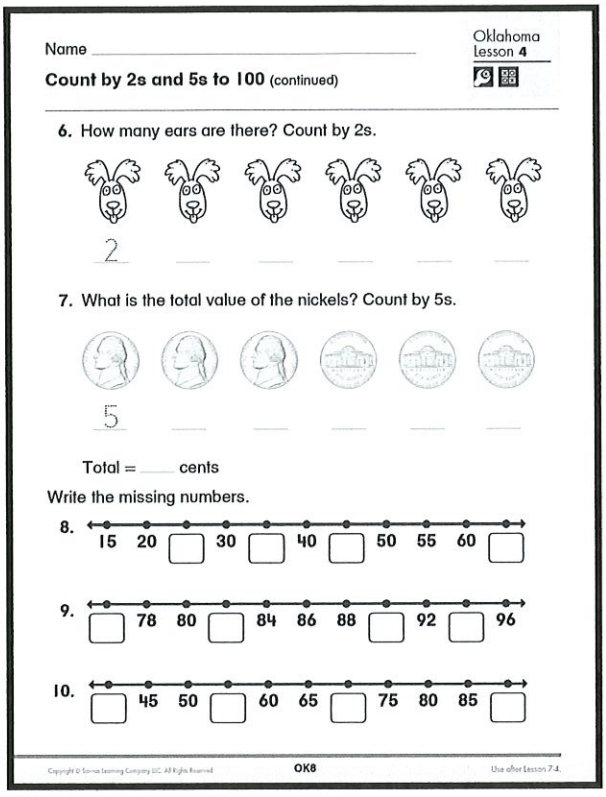

Name _____ Oklahoma Lesson 4

Count by 2s and 5s to 100 (continued)

6. How many ears are there? Count by 2s.

2 ___ ___ ___ ___ ___

7. What is the total value of the nickels? Count by 5s.

5 ___ ___ ___ ___ ___

Total = ____ cents

Write the missing numbers.

8. 15 20 ☐ 30 ☐ 40 ☐ 50 55 60 ☐

9. ☐ 78 80 ☐ 84 86 88 ☐ 92 ☐ 96

10. ☐ 45 50 ☐ 60 65 ☐ 75 80 85 ☐

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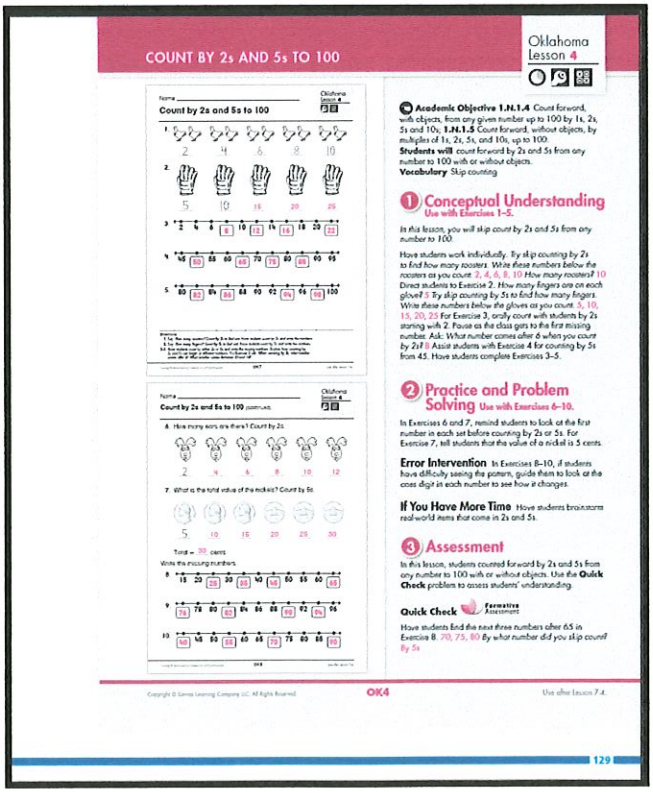

COUNT BY 2s AND 5s TO 100

Oklahoma Lesson 4

Academic Objective 1.N.1.4 Count forward, with objects, from any given number up to 100 by 1s, 2s, 5s and 10s; **1.N.1.5** Count forward, without objects, by multiples of 1s, 2s, 5s, and 10s, up to 100.
Students will count forward by 2s and 5s from any number to 100 with or without objects.
Vocabulary Skip counting

1 Conceptual Understanding Use with Exercises 1–5.

In this lesson, you will skip count by 2s and 5s from any number to 100.

Have students work individually. By skip counting by 2s to find how many roosters. Write these numbers below the roosters as you count. 2, 4, 6, 8, 10 *How many roosters?* 10 Direct students to Exercise 2. *How many fingers are on each glove?* 5 *Try skip counting by 5s to find how many fingers.* Write these numbers below the gloves as you count. 5, 10, 15, 20, 25 For Exercise 3, orally count with students by 2s starting with 2. Pause as the class gets to the first missing number. Ask: *What number comes after 6 when you count by 2s?* 8 Assist students with Exercise 4 for counting by 5s from 45. Have students complete Exercises 3–5.

2 Practice and Problem Solving Use with Exercises 6–10.

In Exercises 6 and 7, remind students to look at the first number in each set before counting by 2s or 5s. For Exercise 7, tell students that the value of a nickel is 5 cents.

Error Intervention In Exercises 8–10, if students have difficulty seeing the pattern, guide them to look at the ones digit in each number to see how it changes.

If You Have More Time Have students brainstorm real-world items that come in 2s and 5s.

3 Assessment

In this lesson, students counted forward by 2s and 5s from any number to 100 with or without objects. Use the **Quick Check** problem to assess students' understanding.

Quick Check Formative Assessment

Have students find the next three numbers after 65 in Exercise 8. *70, 75, 80 By what number did you skip count?* By 5s

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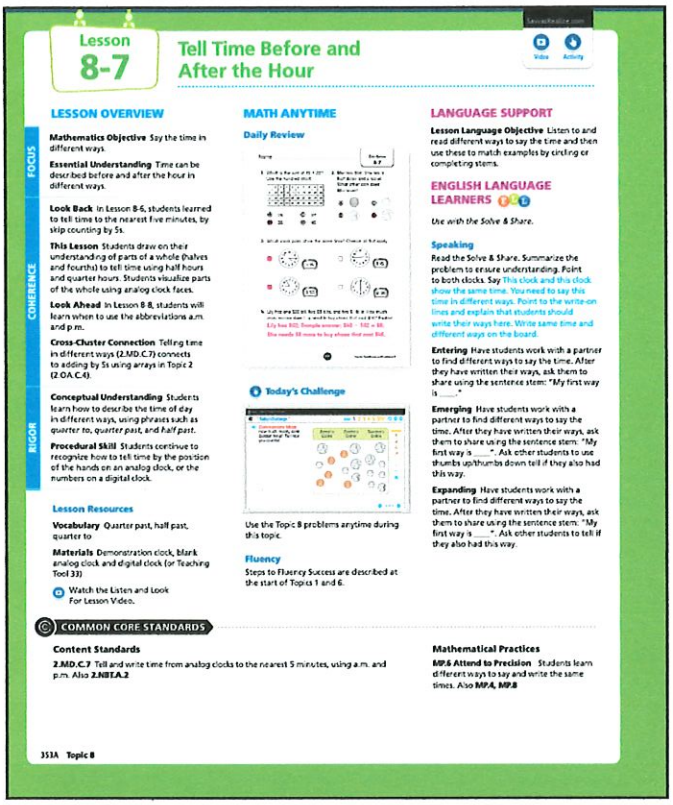
Grade 2, Lesson 8-7
Addresses time to the quarter hour



Lesson 8-7

Tell Time Before and After the Hour

LESSON OVERVIEW

FOCUS

Mathematics Objective Say the time in different ways.

Essential Understanding Time can be described before and after the hour in different ways.

COHERENCE

Look Back In Lesson 8-6, students learned to tell time to the nearest five minutes, by skip counting by 5s.

This Lesson Students draw on their understanding of parts of a whole (halves and fourths) to tell time using half hours and quarter hours. Students visualize parts of the whole using analog clock faces.

Look Ahead In Lesson 8-8, students will learn when to use the abbreviations a.m. and p.m.

Cross-Cluster Connection Telling time in different ways (2.MD.C.7) connects to adding by 5s using arrays in Topic 2 (2.OA.C.4).

RIGOR

Conceptual Understanding Students learn how to describe the time of day in different ways, using phrases such as *quarter to*, *quarter past*, and *half past*.

Procedural Skill Students continue to recognize how to tell time by the position of the hands on an analog clock, or the numbers on a digital clock.

Lesson Resources

Vocabulary Quarter past, half past, quarter to

Materials Demonstration clock, blank analog clock and digital clock (for Teaching Tool 33)

Watch the Listen and Look For Lesson Video.

MATH ANYTIME

Daily Review

Today's Challenge

Use the Topic 8 problems anytime during this topic.

Fluency

Steps to Fluency Success are described at the start of Topics 1 and 6.

LANGUAGE SUPPORT

Lesson Language Objective Listen to and read different ways to say the time and then use these to match examples by circling or completing stems.

ENGLISH LANGUAGE LEARNERS

Use with the Solve & Share.

Speaking

Read the Solve & Share. Summarize the problem to ensure understanding. Point to both clocks. Say This clock and this clock show the same time. You need to say this time in different ways. Point to the write-on lines and explain that students should write their ways here. Write same time and different ways on the board.

Entering Have students work with a partner to find different ways to say the time. After they have written their ways, ask them to share using the sentence stem: "My first way is ____."

Emerging Have students work with a partner to find different ways to say the time. After they have written their ways, ask them to share using the sentence stem: "My first way is ____." Ask other students to use thumbs up/thumbs down tell if they also had this way.

Expanding Have students work with a partner to find different ways to say the time. After they have written their ways, ask them to share using the sentence stem: "My first way is ____." Ask other students to tell if they also had this way.

COMMON CORE STANDARDS

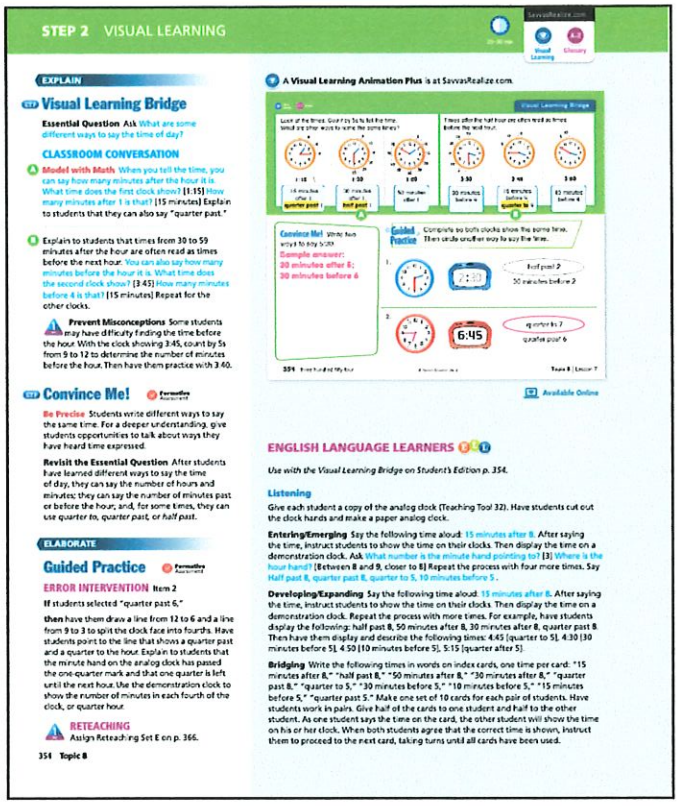
Content Standards

2.MD.C.7 Tell and write time from analog clocks to the nearest 5 minutes, using a.m. and p.m. Also **2.NBT.A.2**

Mathematical Practices

MP.6 Attend to Precision Students learn different ways to say and write the same times. Also **MP.4, MP.8**

353A Topic 8



STEP 2 VISUAL LEARNING

EXPLAIN

Visual Learning Bridge

Essential Question Ask What are some different ways to say the time of day?

CLASSROOM CONVERSATION

Model with Math When you tell the time, you can say how many minutes after the hour it is. What time does the first clock show? [1:15] How many minutes after 1 is that? [15 minutes] Explain to students that they can also say "quarter past."

Explain to students that times from 30 to 59 minutes after the hour are often read as times before the next hour. You can also say how many minutes before the hour it is. What time does the second clock show? [3:45] How many minutes before 4 is that? [15 minutes] Repeat for the other clocks.

Prevent Misconceptions Some students may have difficulty finding the time before the hour. With the clock showing 3:45, count by 5s from 9 to 12 to determine the number of minutes before the hour. Then have them practice with 3:40.

Convince Me!

Be Precise Students write different ways to say the same time. For a deeper understanding, give students opportunities to talk about ways they have heard time expressed.

Revisit the Essential Question After students have learned different ways to say the time of day, they can say the number of hours and minutes; they can say the number of minutes past or before the hour; and, for some times, they can use *quarter to*, *quarter past*, or *half past*.

ELABORATE

Guided Practice

ERROR INTERVENTION Item 2

If students selected "quarter past 6,"

then have them draw a line from 12 to 6 and a line from 9 to 3 to split the clock face into fourths. Have students point to the line that shows a quarter past and a quarter to the hour. Explain to students that the minute hand on the analog clock has passed the one-quarter mark and that one quarter is left until the next hour. Use the demonstration clock to show the number of minutes in each fourth of the clock, or quarter hour.

RETEACHING
Assign Reteaching Set E on p. 366.

354 Topic 8

A **Visual Learning Animation Plus** is at SavvasRealize.com.

Available Online

ENGLISH LANGUAGE LEARNERS

Use with the Visual Learning Bridge on Student's Edition p. 354.

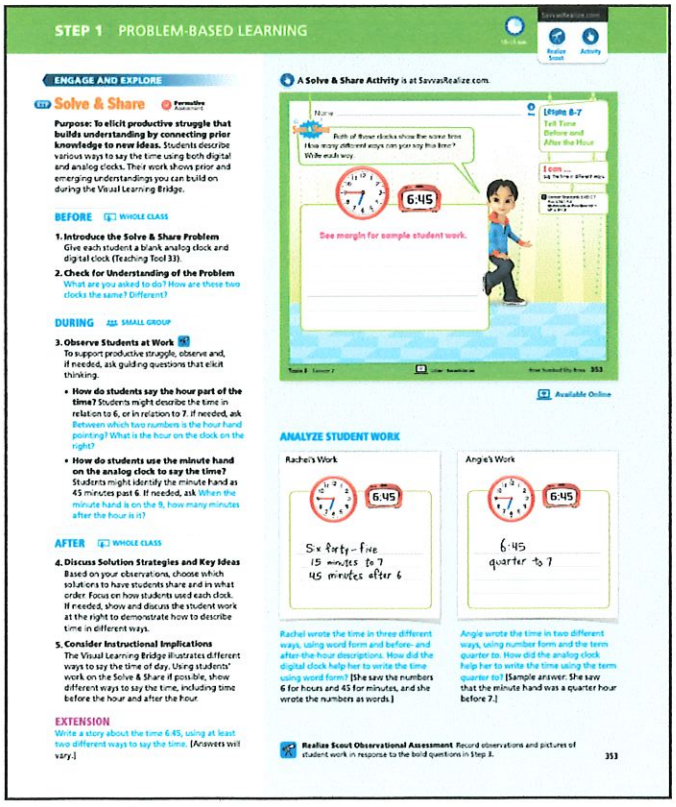
Listening

Give each student a copy of the analog clock (Teaching Tool 32). Have students cut out the clock hands and make a paper analog clock.

Entering/Emerging Say the following time aloud: 15 minutes after 8. After saying the time, instruct students to show the time on their clocks. Then display the time on a demonstration clock. Ask What number is the minute hand pointing to? [3] Where is the hour hand? [Between 8 and 9, closer to 8] Repeat the process with four more times. Say Half past 8, quarter past 8, quarter to 5, 10 minutes before 5.

Developing/Expanding Say the following time aloud: 15 minutes after 8. After saying the time, instruct students to show the time on their clocks. Then display the time on a demonstration clock. Repeat the process with more times. For example, have students display the following: half past 8, 50 minutes after 8, 30 minutes after 8, quarter past 8. Then have them display and describe the following times: 4:45 [quarter to 5], 4:30 [30 minutes before 5], 4:50 [10 minutes before 5], 5:15 [quarter after 5].

Bridging Write the following times in words on index cards, one time per card: "15 minutes after 8," "half past 8," "50 minutes after 8," "30 minutes after 8," "quarter past 8," "quarter to 5," "30 minutes before 5," "10 minutes before 5," "15 minutes before 5," "quarter past 5." Make one set of 10 cards for each pair of students. Have students work in pairs. Give half of the cards to one student and half to the other student. As one student says the time on the card, the other student will show the time on his or her clock. When both students agree that the correct time is shown, instruct them to proceed to the next card, taking turns until all cards have been used.



STEP 1 PROBLEM-BASED LEARNING

ENGAGE AND EXPLORE

Solve & Share

Purpose: To elicit productive struggle that builds understanding by connecting prior knowledge to new ideas. Students describe various ways to say the time using both digital and analog clocks. Their work shows prior and emerging understandings you can build on during the Visual Learning Bridge.

BEFORE WHOLE CLASS

1. **Introduce the Solve & Share Problem**
Give each student a blank analog clock and digital clock (Teaching Tool 33).
2. **Check for Understanding of the Problem**
What are you asked to do? How are these two clocks the same? Different?

DURING SMALL GROUP

3. **Observe Students at Work**
To support productive struggle, observe and, if needed, ask guiding questions that elicit thinking.
   - **How do students say the hour part of the time?** Students might describe the time in relation to 6, or in relation to 7. If needed, ask Between which two numbers is the hour hand pointing? What is the hour on the clock on the right?
   - **How do students use the minute hand on the analog clock to say the time?** Students might identify the minute hand as 45 minutes past 6. If needed, ask When the minute hand is on the 9, how many minutes after the hour is it?

AFTER WHOLE CLASS

4. **Discuss Solution Strategies and Key Ideas**
Based on your observations, choose which solutions to have students share and in what order. Focus on how students used each clock. If needed, show and discuss the student work at the right to demonstrate how to describe time in different ways.
5. **Consider Instructional Implications**
The Visual Learning Bridge illustrates different ways to say the time of day. Using students' work on the Solve & Share if possible, show different ways to say the time, including time before the hour and after the hour.

EXTENSION
Write a story about the time 6:45, using at least two different ways to say the time. [Answers will vary.]

A **Solve & Share Activity** is at SavvasRealize.com.

See margin for sample student work.

Available Online

ANALYZE STUDENT WORK

Rachel's Work

Six Forty-Five
15 minutes to 7
45 minutes after 6

Rachel wrote the time in three different ways, using word form and before- and after-the-hour descriptions. How did the digital clock help her to write the time using word form? [She saw the numbers 6 for hours and 45 for minutes, and she wrote the numbers as words.]

Angie's Work

6:45
quarter to 7

Angie wrote the time in two different ways, using number form and the term quarter to. How did the analog clock help her to write the time using the term quarter to? [Sample answer: She saw that the minute hand was a quarter hour before 7.]

Realize Scout Observational Assessment Record observations and pictures of student work in response to the bold questions in Step 2.

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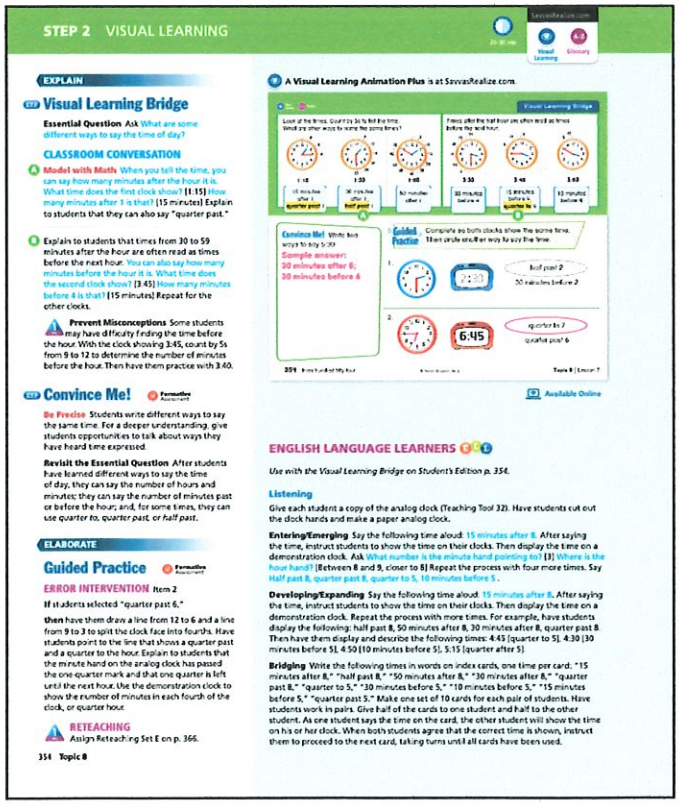

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Grade 1, Lesson OK-1
"Create Bar Graphs"

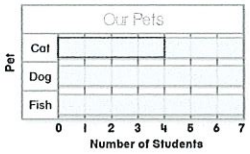
Name _____ Oklahoma Lesson 1

Create Bar Graphs

A **bar graph** is a graph that uses bars to show data.
The bars can go across or up and down.

1. Use the pictograph to make a bar graph that shows the same data.

Favorite Pets	
Dog	
Cat	
Fish	



2. How long did you make the bar for Dog? ____ units

3. Which pet has the fewest pictures in the pictograph? _____

   Which pet has the shortest bar in the bar graph? _____

Directions:

1. Say: ***This pictograph shows the number of students that have cats, dogs, and fish. A bar graph is like a pictograph, but a bar graph uses bars instead of pictures. We can make a bar graph that shows the same data as the pictograph. Every bar graph must have a title. So, write the title.*** Then explain to students that they should use the data from the pictograph to complete the bar graph. ***Draw the bar for Cat first.*** Check that students shade the bar for Cat from 0 to 4. Guide students in making bars for the other two pets. For each pet's bar, emphasize that students should shade one unit for each picture that the pictograph shows.
2. After students complete Exercise 2, ask: ***Why did you make the bar for Dog 6 units long?*** Students should see that since the pictograph shows 6 dogs, the bar for Dog must go to the 6.
3. After students complete Exercise 3, ask: ***Why is the bar for Fish the shortest?*** Students should understand that since Fish has the fewest pictures in the pictograph, the bar for Fish in the bar graph must be the shortest.

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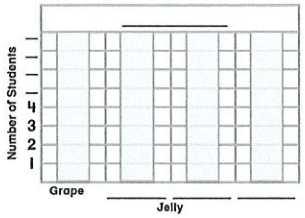
Name _____ Oklahoma Lesson 1

Create Bar Graphs (continued)

4. Use the data in the table to complete the bar graph. Write a title, the missing labels, and the missing numbers. Then draw the bars.

Favorite Jelly	
Grape	7
Strawberry	3
Blueberry	4
Raspberry	4



5. Which jelly did the most students choose? _____

6. Which jelly did the fewest students choose? _____

7. **Reasoning** Two students say their favorite jelly is apricot. How would you add these data to the bar graph?

_____

_____

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CREATE BAR GRAPHS

Oklahoma Lesson 1

Academic Standards 1.D.1.2 Use data to create pictographs and bar graphs that demonstrate one-to-one correspondence.
Objective Students will use data to create bar graphs.
Vocabulary Bar graph

1 Conceptual Understanding
Use with Exercises 1–3.

In this lesson, you will show data on bar graphs.

Review pictographs (also called picture graphs) as needed. Have students tell how many students have each type of pet. Explain that the same data will be used to create a bar graph. Point out the parts of the bar graph. As students complete the exercises, help them see the connection between the two graphs. You can shade the row of cats in the pictograph to reinforce the connection to the bar for Cat in the bar graph. When students finish the bar graph, ask, *How many bars did you need to draw?* Three. *Why?* There are three types of pet, and there is one bar for each type of pet.

2 Practice and Problem Solving
Use with Exercises 4–7.

Point out that the given data are now shown in a table instead of in a pictograph. Also, this bar graph will have vertical bars instead of horizontal bars because the bars must go in the direction as the number labels, which go up. Remind students that they should write a title, the missing labels, and the missing numbers before they draw the bars.

Error Intervention If students have difficulty drawing the bars in Exercise 4, then show them how to draw the bar for Grape. Explain that the number that aligns with the top of the bar must match the number in the table for Grape.

If You Have More Time Have students create a bar graph with horizontal bars using the same data represented in the "Favorite Jelly" bar graph. Ask students which graph they like better and why.

3 Assessment
In this lesson, students created bar graphs. Use the **Quick Check** problem to assess students' understanding.

Quick Check Formative Assessment

In the "Favorite Jelly" bar graph, how do you know how high to draw the bar for Blueberry? Sample answer: Four students chose Blueberry, so the Blueberry bar must go to the line that shows 4 students.

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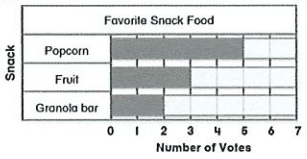
Grade 1, Lesson OK-2
"Interpret Bar Graphs"

Name _____ Oklahoma Lesson 2

Interpret Bar Graphs

You can use a bar graph to get information about data and to compare data.

Melissa asked her classmates which of three snack foods they like best. She collected their answers and showed the data in the bar graph below.



1. How many students chose fruit as their favorite snack?
   3 students
2. How many students did Melissa ask? ____ students
3. Which snack did the most students choose? _____
4. How many fewer students chose granola bar than popcorn?
   ____ fewer students

Directions:

1. Read Exercise 1 with students. Help students find the Fruit bar on the graph and read the number at the end of the bar. Then have them trace the number.
2. Read Exercise 2 with students. Then ask: ***How can you find the total number of students Melissa asked?*** Students should understand that they need to add the data from all categories to find the total.
3. Read Exercise 3 with students. Ask: ***How can you answer the question without reading the number at the end of the bar?*** Students should understand that the longest bar represents the most votes.
4. Read Exercise 4 with students. Ask guiding questions to help them find the answer. ***How many students chose granola bar?*** (2) ***How many chose popcorn?*** (5)

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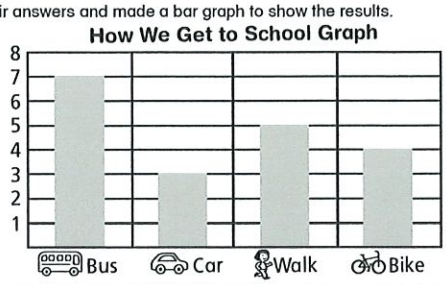
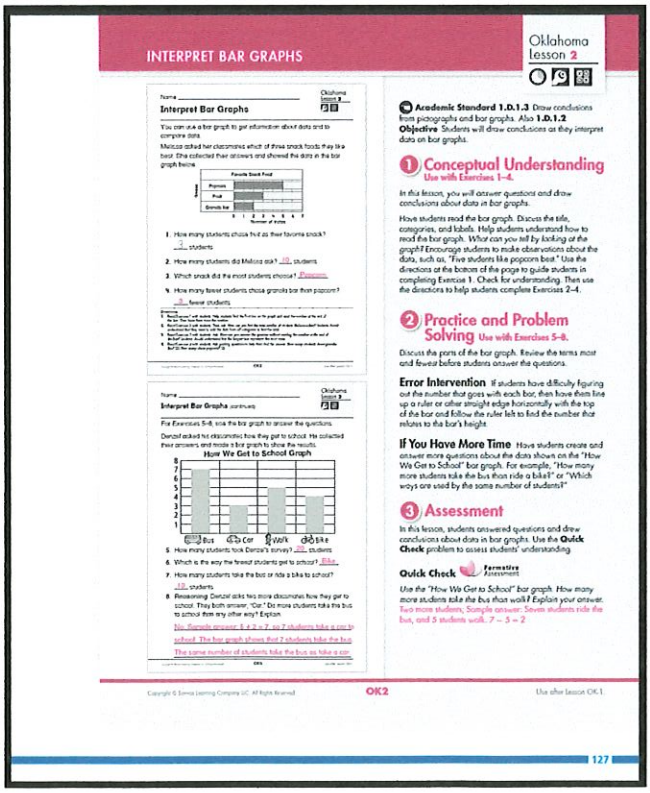
Name _____ Oklahoma Lesson 2

Interpret Bar Graphs (continued)

For Exercises 5–8, use the bar graph to answer the questions.

Denzel asked his classmates how they get to school. He collected their answers and made a bar graph to show the results.



5. How many students took Denzel's survey? ____ students
6. Which is the way the fewest students get to school? _____
7. How many students take the bus or ride a bike to school?
   ____ students
8. **Reasoning** Denzel asks two more classmates how they get to school. They both answer, "Car." Do more students take the bus to school than any other way? Explain.

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