

Grade 4

Lesson Sample

Content Review





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A Math Program for Texas Educators

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Welcome to Your Lesson Sample

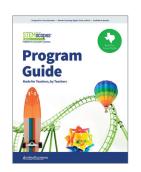
The following pages feature resources that mirror what teachers and students can access digitally. Each section includes clear navigation steps that seamlessly guide you through the content online, ensuring quick and easy access. Look for red circle callouts in the top left corner, which correspond directly to the titles of online documents.

Our lessons are also referred to as Scopes online. Scopes are built on a solid foundation of proven educational strategies, featuring a wealth of resources and materials fully aligned to the TEKS.

From our online platform, you can:

- Personalize your experience by bookmarking your favorite elements, crafting lesson plans, and effortlessly managing your students and classes.
- Access detailed preparation instructions, facilitation prompts, discussion questions, and sample student answers, providing everything you need for successful hands-on learning.
- Preview assignments from the student's view.
- Assign activities and assignments to students digitally, grade submissions, and provide feedback seamlessly within our user-friendly interface.
- Download and print files for added flexibility!

Explore the STEMscopes Texas Math Program Guide for a deeper dive into our lesson design and comprehensive program details.



Log In and Review!

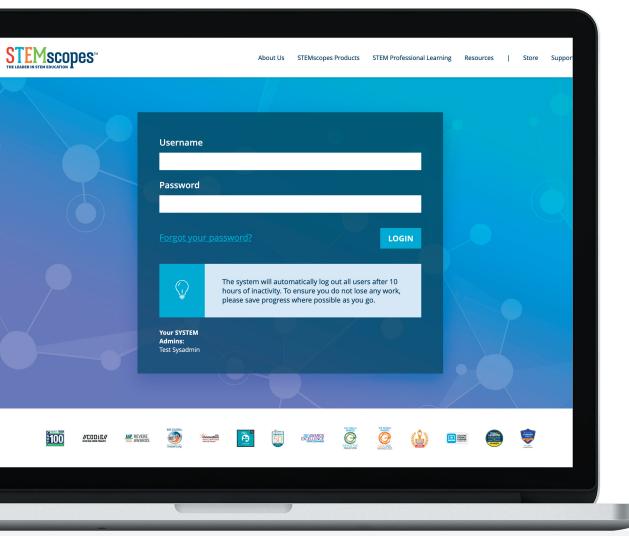
The entire STEMscopes Texas Math curriculum is online.

Use the **navigation steps** to follow along online and explore all that STEMscopes Texas Math offers educators and students.

Access our full curriculum online in two easy ways:

- 1. Log in using your district's unique review URL and credentials.
- 2. Sign up at acceleratelearning.com/math/tx.

All student digital and print resources are available in English and Spanish.





Lesson Design

A Comprehensive Math Solution

Each lesson is intentionally designed to provide teachers and students with everything they need for engaging and meaningful math instruction and learning.

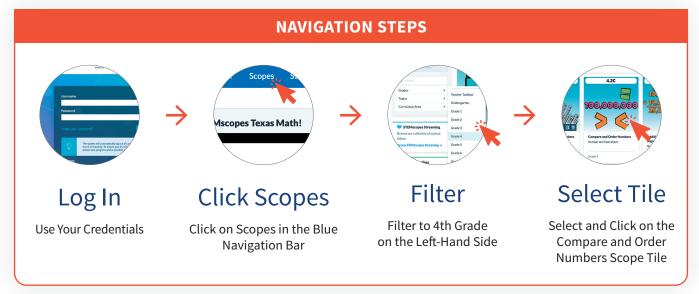
Everything You Need, All In One Place

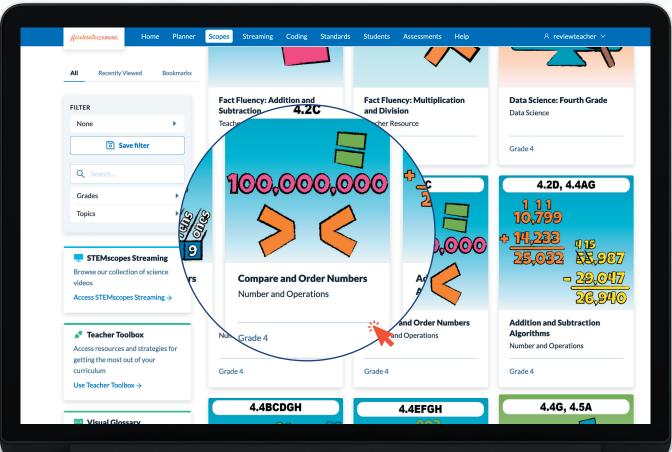


Grade 4 Lessons

LESSON	TEKS
Place Value of Whole Numbers	4.2A, 4.2B
Compare and Order Numbers	4.2C
Addition and Subtraction Algorithms	4.2D, 4.4G, 4.4A
Multiplication Models and Strategies	4.4B, 4.4C, 4.4D, 4.4G, 4.4H
Division Models and Strategies	4.4E, 4.4F, 4.4G, 4.4H
Problem Solve Using the Four Operations	4.4G, 4.5A
Area and Perimeter	4.5C, 4.5D
Compare Fractions	4.3C, 4.3D
Add and Subtract Fractions and Mixed Numbers	4.3A, 4.3B, 4.3E, 4.3F
Represent and Compare Decimals	4.2A, 4.2B, 4.2E, 4.2F, 4.2G, 4.2H, 4.3G
Add and Subtract Decimals	4.4A
Points, Lines, and Angles	4.6A
Angles	4.7A, 4.7B, 4.7C, 4.7D, 4.7E
Properties of Two-Dimensional Figures	4.6B, 4.6C, 4.6D
Number Patterns	4.5B
Measurement	4.8A, 4.8B, 4.8C
Elapsed Time	4.8C
Represent and Interpret Data	4.9A, 4.9B
Profit, Budgets, and Banking	4.10A, 4.10B, 4.10C, 4.10D, 4.10E

Grade 4, Compare and Order Numbers





















Explore

Explain

Elaborate

Evaluate

Intervention

Home



Our program is built by practicing and former teachers, so we know what you need to teach and that your curriculum should provide it all.

Each lesson starts with a tailored **Home** section with planning essentials, including a daily lesson calendar, comprehensive standards analysis, and letters for communicating with families.



SCOPE OVERVIEW

The Scope Overview provides a comprehensive insight into the key components that enable teachers to deliver a well-rounded and effective learning experience. It includes a Progression of Learning, which details the essential elements for mastering the standards and offers Supplemental Activities that present various options for assessment, intervention, and enrichment of the core content.

Progression of Learning

ENGAGE

Hook

Use this activity to motivate students and set the stage for learning.

EXPLORE AND EXPLAIN

1: Compare Numbers

Skill Basics: Use Place Value Reasoning to Compare Multi-Digit Numbers Explore and Exit Ticket
Show What You Know

2: Order Numbers

Explore and Exit Ticket Show What You Know

Supplemental Activities

Supports for Concept Development

Skill Basics (Explore)

A lesson that prepares students for the Explore activities

Note: This is not in every scope.

Anchor Chart (Explain)

A guide to facilitating the creation of a chart that summarizes the concepts within the scope

Interactive Notebook (Explain)

An activity that allows students to process what they have learned and that can be added to a student notebook for future reference

Picture Vocabulary (Explain)

A presentation of important terms with pictures and definitions

Language Connections (Explain)

An opportunity to use linguistic and cultural background knowledge to support connections to new skills, vocabulary, and concepts at different proficiency levels

Workstations and Additional Practice

Fluency Builder (Elaborate)

A game that provides students with an engaging way to practice new concepts

My Math Thoughts (Explain)

An activity containing journal prompts designed to allow students to explain their thinking and reflect

ow students to activities that best ament.





CONTENT SUPPORT

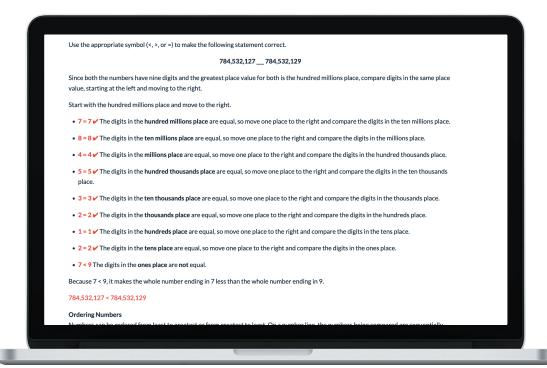
Content Support is a comprehensive unit overview that provides the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

4.2C Compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =.

Background Knowledge

Kindergarten students begin comparing when they identify a number that is one less or one more than a given number between 1 and 20. Students then compare two sets of up to 20 objects and identify whether the number of objects in one set is more or less than the number of objects in the other set by using the terms *less than, the same as,* or *greater than.*

Between first and third grades, students use their understanding of place value, and they work with concrete models and/or number lines to plot, order, and compare whole numbers by using both comparative language (*greater than, less than,* or *equal to*) and symbols (>, <, or =). First graders make comparisons up to 120, second graders make comparisons up to 1,200, and third graders make comparisons up to 100,000.







CONTENT UNWRAPPED

Content Unwrapped breaks down the TEKS by identifying the nouns and verbs within the standards, includes a list of instructional implications, and provides a vertical alignment.

Standards

4.2C Compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =.

Breakouts

- (i) Compare whole numbers to 1,000,000,000.
- (ii) Order whole numbers to 1,000,000,000.
- (iii) Represent comparisons using the symbols >, <, or =.

Verbs: What should students be doing?

- compare: to determine similarities or differences between two or more objects or numbers
- order: To arrange into a sequence
- represent: To show in some way; to stand for something

Nouns: What concrete words should students know?

- whole number: a numerical value with no decimal or fractional part
- comparison: the process or results of looking for similarities and/or differences among sets of objects or numbers
- symbol: a character used to represent a value or process



Implications for Instruction

- Students have experience comparing and ordering numbers with and without symbols. However, they have only compared and ordered numbers up to 100,000.
- Students have been using the >, <, and = symbols to represent comparisons since first grade.
- Multi-digit numbers can be compared and ordered based on their positions on a number line. On a number line, numbers increase from left to right. Thus, the numbers positioned on the right will be greater than numbers positioned on the left.
- Instruction should include using a place value chart up to the billions. Place value disks can be used to develop procedural fluency with recognizing the value of each digit in a multi-digit number.



STANDARD

 $\mathbf{K.2G}$ Compare sets of objects up to at least 20 in each set using comparative language

K.2H Use comparative language to describe two numbers up to 20 presented as written numerals.

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

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

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

2.2D Use place value to compare and order whole numbers up to 1,200 using comparative language, numbers, and symbols (>, <, or =).

3.2D Compare and order whole numbers up to 100,000 and represent comparisons using the symbols >, <, or =.

4.2C Compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =.

5.2B Compare and order two decimals to thousandths and represent comparisons using the symbols >, <, or =.

 $\bf 6.2D$ Order a set of rational numbers arising from mathematical and real-world contexts.

 $\bf 8.2D$ Order a set of real numbers arising from mathematical and real-world contexts.

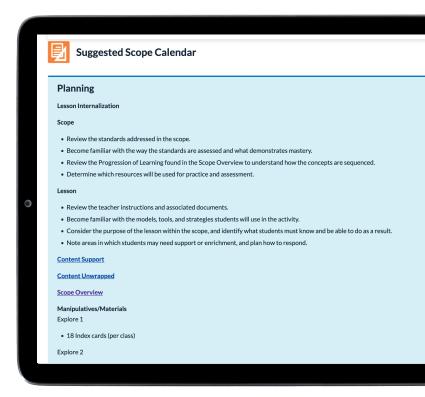
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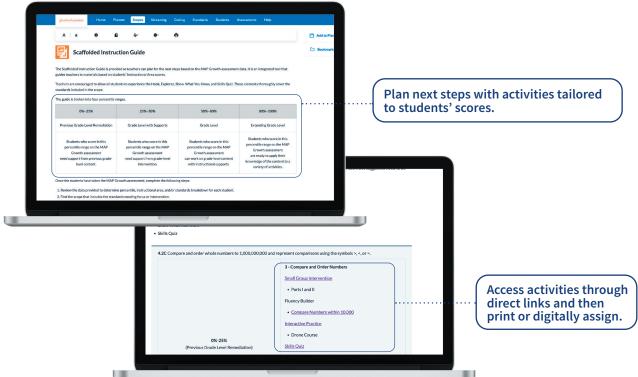
SUGGESTED SCOPE CALENDAR

Dive deep into comprehensive, structured unit and lesson plans that detail daily objectives, questions, tasks, materials, instructional assessments, and suggested timing.





SCAFFOLDED INSTRUCTION GUIDE



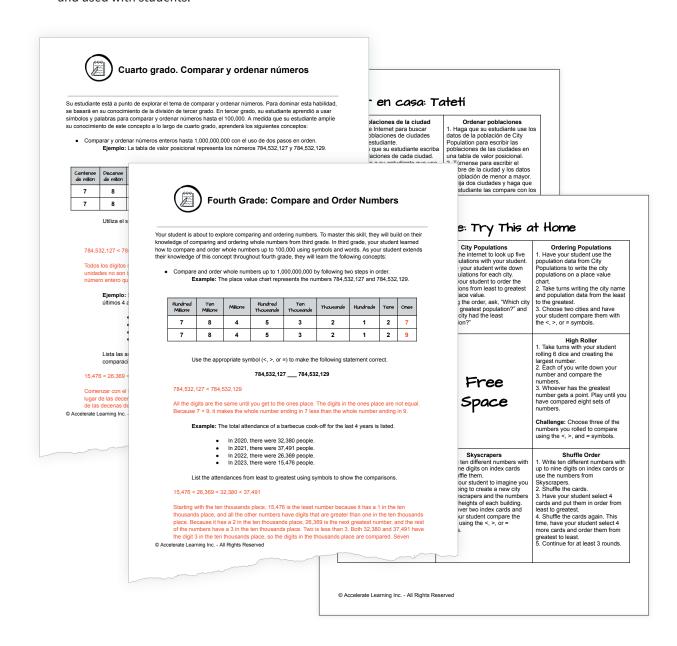




TAKE-HOME LETTER

Procedure and Facilitation Points

- 1. As you prepare for each scope, send a Take-Home Letter with students the week before to explain planned concepts and ways to help at home.
- 2. Have students return a signed copy of the Tic-Tac-Toe: Try This at Home page when completed to share with the class.
- 3. Be prepared to explain activities as questions arise. Some letters include resources that should be cut out and used with students.





















e Engage Explore

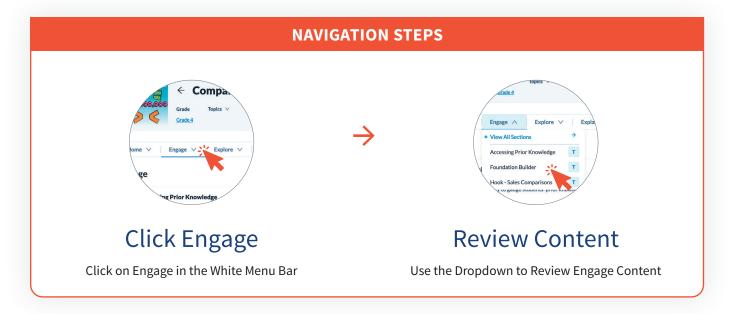
Elaborate

Evaluate

Intervention

Acceleration

Engage



Our **Engage** activities kick off student learning by capturing students' attention and making math approachable! Use these elements to pinpoint knowledge gaps and inform your instructional approach.



ACCESSING PRIOR KNOWLEDGE Diagnostic

Accessing Prior Knowledge is a brief, teacher-led activity to gauge students' prior knowledge before engaging in the inquiry process. This diagnostic assessment is aligned with previously taught content standards. Students use place value reasoning to compare and order multi-digit numbers up to 100,000.

Preparation

- Plan to have students work independently to complete this activity.
- Print a set of Texas City Maps for the class. Post the maps in different locations around the classroom.
- Print a Student Handout for each student.

Procedure and Facilitation Points

- 1. Distribute a Student Handout to each student.
- 2. Instruct students to silently read about the population sizes of some Texas cities and choose the correct order of the city populations from greatest to least.
- 3. Have students stand next to the map they think correctly represents the Texas city populations from greatest to least.
- 4. Facilitate a class discussion about student choices. This provides an opportunity to gather an understanding of prior student knowledge before beginning the lessons. Encourage students to support their answers, and check for understanding and misconceptions. Sample student responses include the following:
 - a. I chose Georgetown > Cedar Park > Missouri City > Baytown because Georgetown has the smallest population size and Baytown has the greatest population size. The symbol > means "less than."
 - b. I chose Cedar Park < Georgetown < Baytown < Missouri City because Cedar Park ends with a 0 and Missouri City ends with a 9. Zero is less than nine, so Cedar Park should go first and Missouri City should go last. The symbol < means "greater than."
 - c. I chose Baytown > Missouri City > Cedar Park > Georgetown because Baytown and Missouri City both have a 5 in the thousands place. Baytown has a 9 in the hundreds place, and Missouri City has a 7 in the hundreds place. That makes Baytown's population greater than Missouri City's population. Georgetown and Cedar Park both have the same digits until the hundreds place. Cedar Park has a 9, and Georgetown has a 1. That means Cedar Park's population is greater than Georgetown's population. The > means "greater than."
 - d. I chose Missouri City < Baytown > Georgetown < Cedar Park because Missouri City has 729 after the comma and Baytown has 916. That means Missouri City's population is smaller than Baytown's. The symbol > means "greater than." Baytown's population is greater than Georgetown's population because Baytown has a 5 in the thousands place and Georgetown has a 4 in the thousands place. The symbol < means "less than." Georgetown's population is less than Cedar Park's population because Cedar Park has a 9 in the hundreds place and Georgetown has a 1.
- 5. If students are struggling to complete this task, do the Foundation Builder to fill the gap in prior knowledge before moving on to other parts of the scope.



Student
Handout

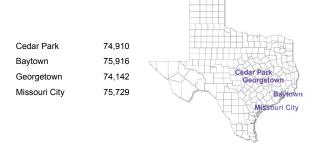
Compare and Order Numbers

Page:

Date:

Texas City Populations

In 2018, Texas was the second-most populated state in the country. Texas had 163 cities that boasted populations of more than 10,000 but less than 100,000. Here are four such cities and their populations:



Choose the correct order of cities based on population size, from greatest to least.

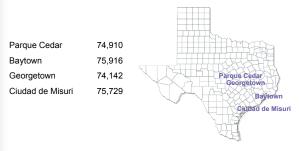
Georgetown > Cedar Park > Missouri City > Baytown Cedar Park < Georgetown < Baytown < Missouri City Baytown > Missouri City > Cedar Park > Georgetown Missouri City < Baytown > Georgetown < Cedar Park

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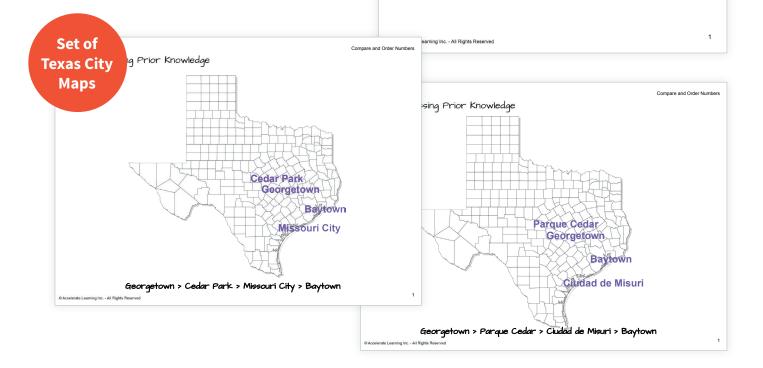
Poblaciones de ciudades de Texas

estado de Texas fue el segundo estado más poblado del país en el 2018. Esta ión tenía 163 ciudades cuyas poblaciones eran de más de 10,000, pero menos 100,000. He aquí cuatro de estas ciudades y sus poblaciones:



coge el orden correcto de las ciudades según el tamaño de la población, de yor a menor.

Georgetown > Parque Cedar > Ciudad de Misuri > Baytown Parque Cedar < Georgetown < Baytown < Ciudad de Misuri Baytown > Ciudad de Misuri > Parque Cedar > Georgetown Ciudad de Misuri < Baytown > Georgetown < Parque Cedar





FOUNDATION BUILDER

This early intervention activity fills gaps in understanding before diving into new content. Students work in pairs to create and compare numbers using their understanding of place value.

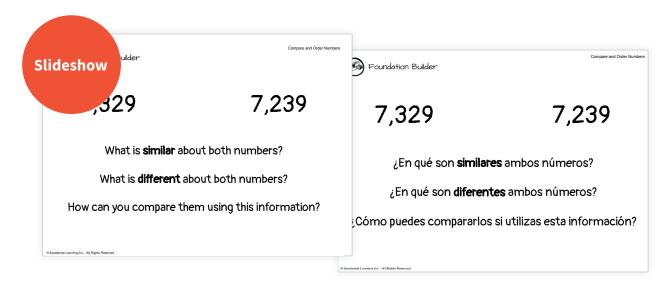
Preparation

- Plan to have students work in pairs to complete this activity.
- Prepare to project the Slideshow for the class.
- Print a Student Handout for each pair.
- Gather enough dice for each pair to have one die.

Procedure and Facilitation Points

Part I

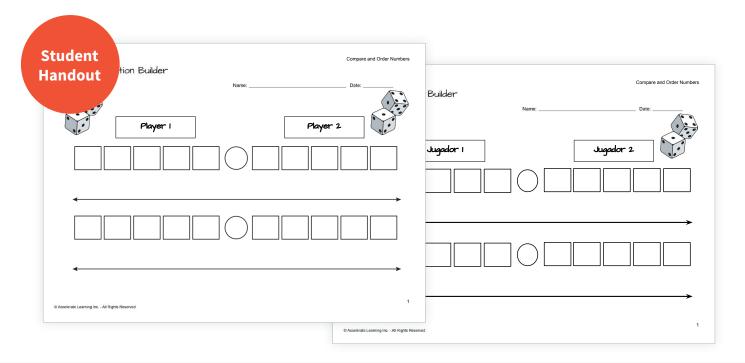
- 1. Project the Slideshow. Allow students time to analyze the numbers and discuss with their partners what they notice and wonder.
- 2. Read the three questions below together as a class. Have students share their observations with their partners.
- 3. Discuss the following questions:
- a. What is similar about the numbers? Answers will vary. They both have the same digits.
- a. What is different about the numbers? Answers will vary. Some digits are in a different place.
- a. What is the difference between the numbers and digits? A number is the whole series of digits that have a value based on where each digit is placed. A digit is a numeral that has a value according to where in a number it is placed.
- a. How can two of the same digits have different values? Answers will vary. It depends on where that digit is. For example, a 3 in the ones place will have a value of 3, but if it is placed in the hundreds place, it has a value of 300.
- a. What strategies can we use to compare the values of the numbers? *Answers will vary due to student preference*.





Part II

- 1. Distribute a Student Handout to each pair.
- 2. Explain to students that they will be playing a game to practice comparing numbers by using place value and number lines. Model the game for the students. The game instructions are as follows:
 - a. In turn, each partner will roll the die five times to create a five-digit number and will write the digits in their number boxes.
 - b. After both numbers have been created, students should discuss which digits and their values make up their numbers.
 - c. Students determine the scale for the number line and plot both numbers on the number line.
 - d. Students will put the correct comparison symbol between the numbers.
 - e. Play continues until all numbers have been created and compared.
 - f. The winner is the person who has the most "greater than" numbers. Alternatively, you may play the game with the person who has the most "less than" numbers as the winner.
- 3. Walk around and observe student conversations and work. Check for understanding, and note problem areas for further practice.
- 4. Once students have completed their work, discuss the following questions:
 - a. How did you decide which number was greater? Answers will vary. I looked at the digits in the greatest place value and determined which one was greater. I saw the digits in the greatest place value were the same, so I kept looking at the digits in the next place values until I found the one that was greater. The number to the right of the other number on the number line was greater.
 - b. How can two of the same digits have different values? Answers will vary. It depends on where that digit is. For example, a 3 in the ones place will have a value of 3, but if it is placed in the hundreds place, it has a value of 300.
 - c. What strategies can we use to compare the values of the numbers? Answers will vary due to student preference.







HOOK - SALES COMPARISONS

Use the Hook to motivate students and start to connect their learning to real-world contexts. Students compare and order whole numbers up to 1,000,000,000 using the symbols >, <, or =.

Preparation

- Plan to show the Phenomena.
- Part I
 - Be prepared to provide a sticky note to each student.
- Part II
 - Plan to have students work in groups of 5 to complete this activity.
 - Be prepared to hand back the sticky notes with the amount of money in sales from Part I.
 - Print a Student Handout for each student.

Procedure and Facilitation Points

Part I: Pre-Explore

- 1. Introduce this activity toward the beginning of the scope. The class will revisit the activity and solve the original problem after students have completed the corresponding Explore activities.
- 2. Distribute a sticky note to each student.
- 3. Instruct students to write a number that has at least six digits but no more than nine on their sticky note. Have them each write the number across the center of the sticky note and record their name along the bottom of the note. Collect their sticky notes. The students will use these sticky notes again in Part II.
- 4. Show the Phenomena. Ask students the following questions: What do you notice? Where can you see math in this situation? Allow students to share all ideas.
- 5. Explain the scenario to the class: You are on a team of sales representatives. The number you just wrote down represents the amount of money in sales you have made so far this year. The boss wants to analyze the sales on your team. To help with the process, you are going to compare the sale amounts and determine the top sales representatives on your team by ordering the top three sales from least to greatest.
- 6. Allow the students to ask questions and clarify the context as needed. Encourage them to share their thoughts and experiences with the class using the following questions:
 - a. Have you ever sold anything or participated in a school fundraiser where you competed to collect the most money?
 - b. If so, what did you do to compare how many sales you needed to beat your competition?
 - c. What does it mean to compare numbers?



- 7. Discuss the following questions with the class:
 - a. **DOK-2** Which concepts and skills will we need to apply when ordering the numbers? We will need to apply our knowledge of place value to compare and order numbers.
 - b. **DOK-2** When you are comparing two numbers, which place value do you look at first? *You should look at the place value farthest to the left. This is the digit with the greatest value.*
 - c. **DOK-2** What do you do if two digits in the same place value are the same? You look at the next place value to the right. (It is okay if students do not remember this from third grade. It will be addressed in the Explore activities).
- 8. Move on to complete the Explore activities.

Part II: Post-Explore

- 1. After students have completed all the Explore activities for this topic, show the Phenomena again, and repeat the scenario.
- 2. Divide the class into groups of 5 students. Redistribute the sticky notes with the amount of money in sales from Part I.
- 3. Discuss the following questions with the class:
 - a. **DOK-2** Which concepts and skills will we need to apply when ordering the numbers? We will need to apply our knowledge of place value to compare and order numbers.
 - b. **DOK-2** When comparing two numbers, which place value do you look at first? You should look at the place value farthest to the left. This is the digit with the greatest value.
 - c. **DOK-2** What do you do if two digits in the same place value are the same? You look at the next place value to the right.
- 4. Distribute a Student Handout to each student.
- 5. Explain to students they will use the sticky notes with their amount of money in sales to record comparison statements and identify the top three sales representatives on their team. If none of the student sales are the same number, they are to leave the row with the equal to symbol blank.
- 6. Instruct students to order the top three student sales on their team from least to greatest and use the correct comparison symbol between each value.
- 7. Monitor and talk with students as needed to check for understanding.
- 8. Discuss the following questions with the class:
 - a. **DOK-1** Give an example of a greater-than comparison. *Answers will vary.*
 - b. **DOK-1** Give an example of a less-than comparison. *Answers will vary.*
 - c. **DOK-1** Were any sales of equal value? If so, which ones? Answers will vary.
 - d. **DOK-2** What do you notice about the comparison symbols when ordering the student sales from greatest to least? *I notice that we used the greater than symbols to order the student sales from greatest to least.*
 - e. **DOK-2** How can you use the order to determine which student had the most amount of money in sales? *I know that the student sales that come first in the order are the greatest because the value is greater than the following student sales. The middle student sales are less than the first but greater than the last. The last student sales are less than all the student sales.*
- 9. As an extension, ask students to compare and order their top sales with another team of sales representatives. Have students verbalize the new comparisons using the correct number names and comparison words.



Student Handout

Compare and Order Numbers

Name:

Sales Comparisons

Student Sales	Symbol	Student Sales
	>	
	<	
	>	
	=	
	>	
	<	
	>	

Record the top three student sales in order from greatest to least. Draw the correct symbol in between each value.

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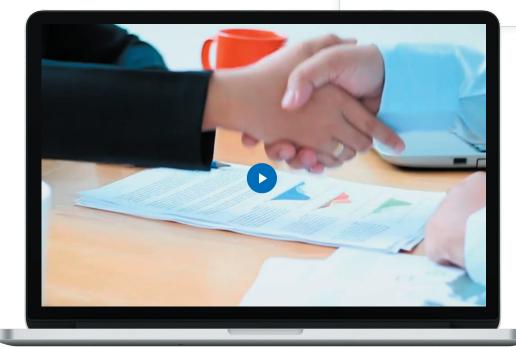


Comparaciones de ventas

Ventas de alumnos	Símbolo	Ventas de alumnos
	>	
	<	
	>	
	=	
	>	
	<	
	>	

gistra las tres ventas principales de los alumnos en orden del mayor al menor. uja el símbolo correcto entre cada valor.

\bigcirc	\bigcirc





Scan and Watch the Hook Phenomena Video



















Home

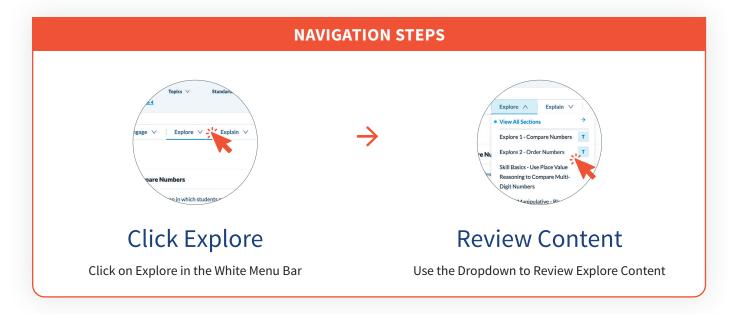
Engage

Elaborate

Evaluate

Intervention

Explore



Scaffolded, hands-on **Explore** activities are at the heart of each lesson. We know students learn best by doing, so we go beyond worksheets and memorization, providing opportunities to engage in rich mathematical discourse within real-world contexts.



EXPLORE 1 - COMPARE NUMBERS

Students compare whole numbers and represent these comparisons using the symbols >, <, and =.

Mathematical Process Standards

- (A) Apply mathematics to problems arising in everyday life, society, and the workplace.
- (B) Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution and evaluating the problem-solving process and the reasonableness of the solution.
- (C) Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.
- (D) Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.
- (E) Create and use representations to organize, record, and communicate mathematical ideas.
- (F) Analyze mathematical relationships to connect and communicate mathematical ideas.

Preparation

- Plan to have students work in groups of 3–4 to complete this activity.
- Print the Student Journal and Exit Ticket for each student.

Part I

- Write the following two numbers on the index cards, one digit per card: \$630,269,241 and \$580,173,506.
 Draw a place value chart on the board, and use the index cards to build both numbers by taping them into the chart with the digits facing the board. Students should not be able to see the digits. Label the numbers in the place value chart as shown:
 - Backyard Adventures: \$630,269,241
 - Fish Tales: \$580,173,506

Part II

- Print a Place Value Mat for each group. Place the mat in a sheet protector to create an erasable surface.
- Print a set of Movie Ticket Sales for each group.
- Gather a set of place value disks and a dry-erase marker for each group.
- For students who need more support in recalling information, please see our Place Value Chart and Open Number Lines Supplemental Aids elements in the Intervention section.
- Go Digital! Have students explore or present their solutions using virtual manipulatives! The manipulatives used for support in this lesson can be found in the Explore drop-down menu and can be digitally assigned to students. (Place Value Disks and Number Lines)

Procedure and Facilitation Points

Part I: The Big Reveal!

- 1. Distribute the Student Journal to each student.
- 2. Read the following scenario to the class: It's the final tally for box office sales for the top two movies of the year! Who will win? Who will have the most sales?



- 3. Help students access the task by using the following guiding questions:
 - a. How would you describe a final tally?
 - b. How does a movie earn box office sales?
 - c. What does it mean to have the most sales?
 - d. What do you remember about comparing numbers?
- 4. Explain that on the board are the box office sales for the top two movies and that you will reveal those sales one digit at a time starting in the place with the least value.
- 5. Instruct students to record the digits of each number in the place value chart on Part I of their Student Journals as you reveal them.
- 6. Reveal the digits in the ones place.
 - a. DOK-1 What do you notice? There is a 1 and a 6.
 - b. **DOK-1** Which number do you think is greater? The number with the 6, Fish Tales.
- 7. Place a check mark by Fish Tales. Then reveal the next place value, the tens place.
 - a. DOK-1 What do you notice? There is a 4 and a 0 in the tens place. Now it looks like 41 and 6.
 - b. **DOK-1** Which number do you think is greater? Backyard Adventures looks greater now!
- 8. Erase the check mark by *Fish Tales*, and place a new check mark by *Backyard Adventures*. Reveal the next place value, the hundreds place.
 - a. **DOK-1** What do you notice? There is a 2 and a 5! Now it looks like 241 and 506!
 - b. **DOK-1** Which number do you think is greater? Now it looks like Fish Tales has more again!
- 9. Change the check mark again, and continue until all the digits are revealed.
- 10. After revealing all the numbers, discuss the following questions with the class:
 - a. **DOK-1** How many digits are in each of these numbers? Each number has 9 digits.
 - b. **DOK-1** What did you notice when we were comparing the places with less value? We went back and forth on which number we thought was greater. Every time we uncovered a new place, it made us change our minds on which one was greater.
 - c. **DOK-2** Which place values are more helpful when comparing two numbers? The places with greater value are more helpful for figuring out which number is greater or less. In these numbers, the hundred millions place helped us find which number was greater.
- 11. Challenge students to use the place value chart on the Student Journal to determine and record two comparison statements and then answer the two questions at the end of Part I.
- 12. Monitor and talk with students as needed to check for understanding by using the following guiding questions:
 - a. **DOK-2** How can the place value chart support you in comparing these two values? The place value chart helps us line up the digits in each place.
 - b. **DOK-2** What process could you follow to compare numbers? We could look at the greatest place value first. If the digits are different, we can tell which number is greater based on that digit. If they are the same, we have to look at the next place value and use those digits to compare.
 - c. **DOK-2** Explain which number comes first in the comparison statement when using the greater than symbol. *The greatest number comes first when using the greater than symbol because the statement reads* \$630,269,241 *is greater than* \$580,173,506.
 - d. **DOK-2** Explain which number comes first in the comparison statement when using the less than symbol. The least number comes first when using the less than symbol because the statement reads \$580,173,506 is less than \$630,269,241.
- 13. Allow students enough time to record their comparisons and solutions on their Student Journals and check for understanding and accuracy.



Part II: Movie Ticket Sales!

- 1. Distribute a Place Value Mat, a set of Movie Ticket Sales, place value disks, and a dry-erase marker to each group.
- 2. Students will continue to use their Student Journals for Part II of this Explore.
- 3. Give students a few moments to look over the materials and discuss what they notice.
- 4. Explain to students that they are going to be comparing all-time movie ticket sales. They will compare two at a time until they find the movie that earned the most.
- 5. Have students collaborate to look at each pair of movies indicated on their Student Journal. Using their dry-erase markers, students should write both numbers, one right under the other, on their Place Value Mat.
- 6. Have students use the place value disks to build each number for extra support in comparing the movie ticket sales, if desired.
- 7. Challenge students to work together to determine which movie had the greatest sales and record two comparison statements on their Student Journals.
- 8. Monitor and talk with students as needed to check for understanding by using the following guiding questions: (Answers will vary.)
 - a. **DOK-1** What do you notice about these numbers? They have the same amount of digits, but the digits vary in each place value.
 - b. **DOK-2** Why is it important to place the digits in the correct location on the Place Value Mat? *If the digits are in the wrong spot on the Place Value Mat, then we won't be able to accurately compare the quantities.*
 - c. **DOK-2** How can the place value disks support you in determining which value is greater? *The place value disks provide a visual support for how large or small the ticket sales costs represent.*
 - d. **DOK-2** How do the comparison statements help you determine a solution? *The comparison statements are read like sentences, which we read from left to right. The statement may say 478,306,490 is greater than 478,305,485 or 478,305,485 is less than 478,306,490. When reading the statement, we know that the greater movie ticket sales will be the movie that earned the most money.*
- 9. Allow students enough time to record their responses for each movie ticket sale comparison. Then challenge students to work together to answer the reflection questions at the end of the Student Journal.



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Math Chat

After the Explore, invite the class to a Math Chat to share their observations and learning.

Questions	Sample Student Responses
DOK-2 What could you do if you didn't have a place value mat to help you compare the values?	I could draw my own place value chart. I could write the two numbers on top of each other and just make sure I lined up the digits.
Choose a Structured Conversation routine to facilitate the following question: DOK-2 Why is place value important when comparing numbers?	Place value helps you know the values of the digits in a number. You have to know what the greatest place values are to compare two numbers.
DOK-2 What helped you determine which movie made the greatest amount of money?	Looking at the digits in the greater place values helped. The values of the digits helped me determine which movie made more money.

Printable Math Chat What could you do if you didn't have a place value mat to help you compare the values? Why is place value important when comparing numbers? What helped you determine which movie made the greatest amount of money? What helped you determine which movie made the greatest amount of money? Charla de matemáticas é podrías hacer si no tuvieras un tapete de valor de posición para comparar los valores? or qué es importante el valor de posición al comparar números? é te ayudó a determinar qué película generó la mayor cantidad de dinero?



Post-Explore - Exit Ticket Formative

- 1. Have students complete the Exit Ticket to formatively assess their understanding of the concept.
- 2. Complete the Anchor Chart as a class.
- 3. Have each student complete their Interactive Notebook

Exit Ticket	plore		Compare and Order Numbers
	1	Name:	Date:

Compare Numbers Exit Ticket

Four aspiring moviemakers were in a friendly contest to see whose video could get the most likes from people around the world. The table shows the number of likes each movie has received so far.

Movie	Number of Likes
Crazy Kitties	310,378,149
Daring Dogs	310,376,830
Monkey Mania	310,376,983
Silly Snakes	310,379,438

1.	Compare	Crazv	Kitties	likes to	Daring	Dogs likes.

_									
2. Compare Monkey Mania likes to Silly Snakes likes.									

Which movie has fewer likes than Monkey Mania? Draw your own place value chart if needed.

Compare and Order Number
Date:

· números le salida

en un concurso amistoso para ver qué sta de personas alrededor del mundo. La cada película ha recibido hasta ahora.

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Instructional Supports

- 1. Students sometimes confuse comparison symbols. The more exposure students have to these symbols, the more likely they will be to remember the meaning. When students write each symbol, it is important to hear and say the phrases *greater than* or *less than* to help them internalize the meaning. Students can relate the symbols to arrows that point to the direction on a number line. Consider providing a number line and discussing how the number to the left (<) of another number has a lesser value, and a number to the right (>) has a greater value.
- 2. If students need additional support in representing the movie sale quantities with the place value mat, encourage them to label each movie on their mat using their dry-erase marker and analyze how many digits are in the number. The student writing on the mat can have a group member explain which place to start writing and then read each individual number out loud to the student writing on the mat.
- 3. If students need additional support in representing the place values on the place value mat, encourage the students to sort their place value disks into piles of millions, hundred thousands, ten thousands, etc. Then instruct students to represent the digit on the chart by creating a stack of disks on their mat pulled from the related place value pile.
- 4. If students need additional support in comparing the quantities, remind students to begin their comparisons in the greatest place value. If necessary, provide students with an extra piece of paper to reveal only the greatest place value and cover up the remaining place values. If the greatest place value is the same, show students how they can slide the paper one place over to reveal the next place value and compare those digits. Continue this process until students can determine which quantity is the greatest.
- 5. Students may forget to move from left to right when checking place value. Help students make the connection that this same direction is applied when reading text. To help keep track of each place value position, have students cross out or cover place value digits from left to right as each digit is compared.
- 6. If students need additional support making comparisons, provide students with a personal number line (pre-marked with scaled increments and benchmark numbers) they can practice navigating. Ask them to point to a number and then to another that is greater than or less than the starting number. Through repeated practice, students will notice that numbers with a greater value are farther to the right, and numbers that have a lesser value are farther to the left.
- 7. It may be beneficial to allow students to compare smaller numbers first using models such as base ten blocks, place value disks, and/or number lines to activate their understanding of comparing numbers.
- 8. As an additional challenge, encourage students to write a list placing all movie ticket sales in order from least to greatest and then greatest to least.

Language Supports

 $Provide \ students \ with \ sentence \ structures \ to \ use \ throughout \ the \ task, such \ as:$

•	I can	te	ell	is	grea	ater than	,	because	
		v							

• I can tell ____ is less than ____, because _____.

Table is a word that has multiple meanings in English. Support multilingual learners by explaining that table in this context refers to "a graphic organizer that shows sets of numbers." Point to examples on the Movie Ticket Sales and the Exit Ticket.

Invite students to present one of their movie ticket sales comparisons to the class by sharing how they represented the numbers on the place value mat and wrote the comparison statements on the Student Journal.

Project the Math Chat questions. Pair up students, and have them take turns interviewing each other. Challenge students to respond using the math terms used during the Explore, such as *greater than* and *less than*.

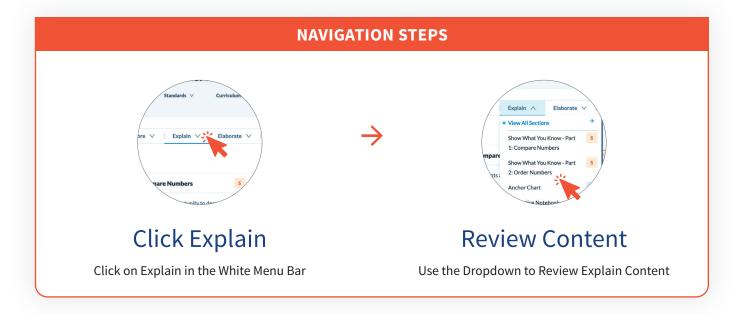
The following English Language Proficiency Standards are supported: 1.CEGH, 2.DGHI, 3.BCDEFGHIJ

Embedded supports in every lesson!





Explain



In the **Explain** section, students form authentic connections and apply their learning to various contexts. They deepen their understanding and build confidence as they master the lesson standards.

More practice and formative assessment opportunities!





SHOW WHAT YOU KNOW - PART 1: COMPARE NUMBERS

Formative

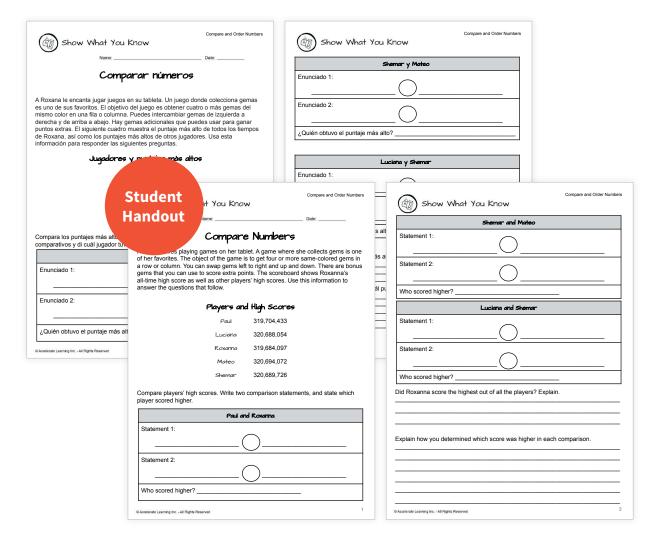
Students apply the knowledge and skills learned during the Explore using this practice.

Preparation

- Print a Student Handout for each student.
- The Show What You Know correlates with the Explore of the same title.

Procedure and Facilitation Points

- 1. Reading assistance may be needed for some students to complete this activity.
- 2. Students should individually complete the Show What You Know activity that correlates with the Explore activity already completed.
- 3. Provide manipulatives as needed, especially those manipulatives used in the Explore.
- 4. This element can be used to assess whether intervention is needed for each student.







INTERACTIVE NOTEBOOK

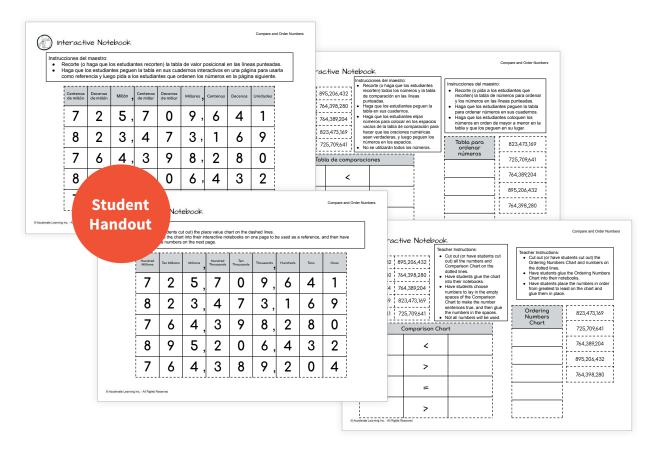
Students take notes, express ideas, and/or process the information presented in class using the activity and notebook.

Preparation

Print a Student Handout for each student.

Procedure and Facilitation Points

- 1. Prepare an Interactive Notebook using a spiral or composition notebook for each student. Students can use the first few pages to create a Table of Contents with page numbers to keep track of activities.
- 2. Pre-cut or allow students to cut the pieces for each Student Handout according to the teacher instructions given in the box on the first page.
- 3. Allow time for students to complete the activity and then glue the pieces in their Interactive Notebook.
- 4. Interactive Notebooks can be used as a student reference during independent work and can be sent home at the end of the year as a record of their learning.





LANGUAGE CONNECTIONS

Students have the opportunity to use their linguistic and cultural background knowledge to support connections to new skills, vocabulary, and concepts at their proficiency levels.

Preparation

- Determine each student's English proficiency level.
- Print a Student Handout for each student at their English proficiency level.
- Allow students to have access to the Picture Vocabulary for this scope.
- Provide a blank index card for students to use to cover the digits of the numbers.
- Allow students to have access to a place value mat and manipulatives, such as place value disks.

Procedure and Facilitation Points

- 1. Distribute a Student Handout at the appropriate proficiency level to each student.
- 2. Use the prompts for the listening, speaking, reading, and writing portions. Use gestures, pointing at objects, and visuals as appropriate. See prompts for suggestions.
- 3. Allow time for students to think with their neighbors before responding.
- 4. Encourage students to persevere through their thinking and to use mathematical tools and models.
- 5. Invite students to respond appropriately to each linguistic domain.

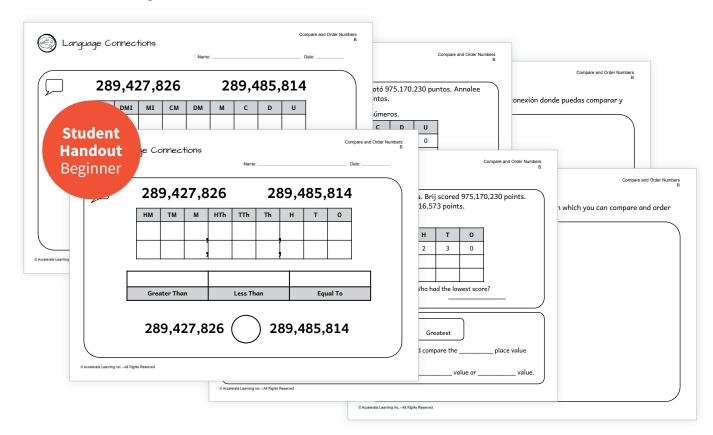
Multilingual Learner Support!



Beginner

Have a place value mat, blank index card, and place value disks readily available for students to use. Read the following prompts one at a time:

- Listen and follow along as I read the following numbers (point to the numbers). Follow along as I read the terms.
- Record the digits of the number 289,427,826 (point to the given number) on the top row of the place value chart on the Student Handout (point to the top row of the place value chart).
- Record the digits of the number 289,485,814 (point to the given number) on the second row of the place value chart on the Student Handout (point to the place value chart).
- Use your index card to cover up all the digits of the numbers except the hundred millions digit (point to the hundred millions place value).
- If the numbers are the same value, move the index card over one more place to the right (point to the ten millions place). (Students should move to the millions, hundred thousands, and then ten thousands.)
- Keep moving your card until the digits are different values. Circle the number that has a greater value. (Students should circle the 8 in the ten thousands place.)
- Point to the number that is greater.
- Look at the table (point to the table). Follow along as I read the terms. Write the symbol for each term in the space (point to each space).
- Write the comparison symbol (point to the comparison symbols) in the circle between the given numbers (point to the circle between the given numbers).

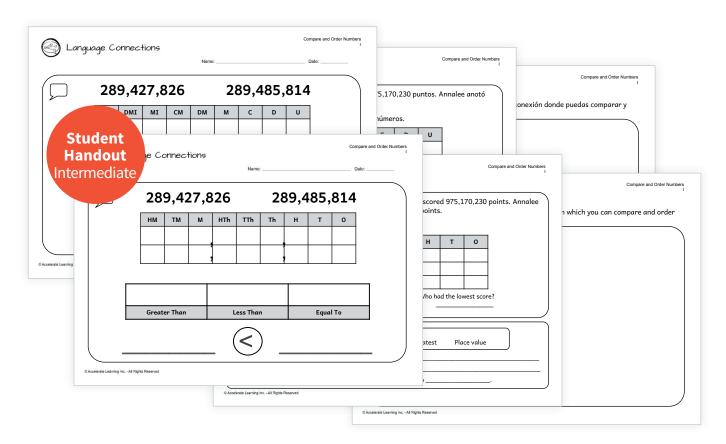




Intermediate

Have a place value mat, blank index card, dry-erase marker, and place value disks readily available for students to use. Read the following prompts one at a time:

- Record the digits of the number 289,427,826 (point to the given number) on the top row of the place value chart on the Student Handout (point to the top row of the place value chart).
- Record the digits of the number 289,485,814 (point to the given number) on the second row of the place value chart on the Student Handout (point to the place value chart).
- Use your index card to cover up digits of the numbers to help you determine which number has a greater value.
- Circle the highest place value where the digits are different.
- Point to the number that is greater.
- Explain to the students that you will read out the terms less than, greater than, and equal to several times.
- Have students draw the symbols on their desk or erasable surface as you call them out loud.
 - Call out "greater than," "less than," and "equal to" in different orders a few times.
- Look at the table (point to the table) and draw the symbols for each comparison. Read and point to each comparison statement.
- Write a comparison statement using the less than symbol to compare the numbers.

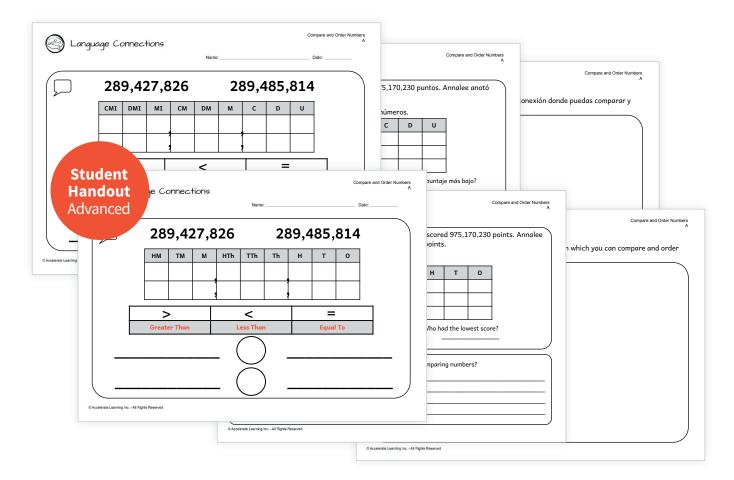




Advanced

Have a place value mat, blank index card, and place value disks readily available for students to use. Read the following prompts one at a time:

- Point to the numbers at the top of the Student Handout.
- Write the numbers on the place value chart.
- Compare the value of the two numbers.
- Circle the greater number.
- Share and discuss with your partners what you know about the symbols that are in the table. Work with your partners to label each of the symbols in the blank space below.
- Write two comparison statements to compare the numbers.







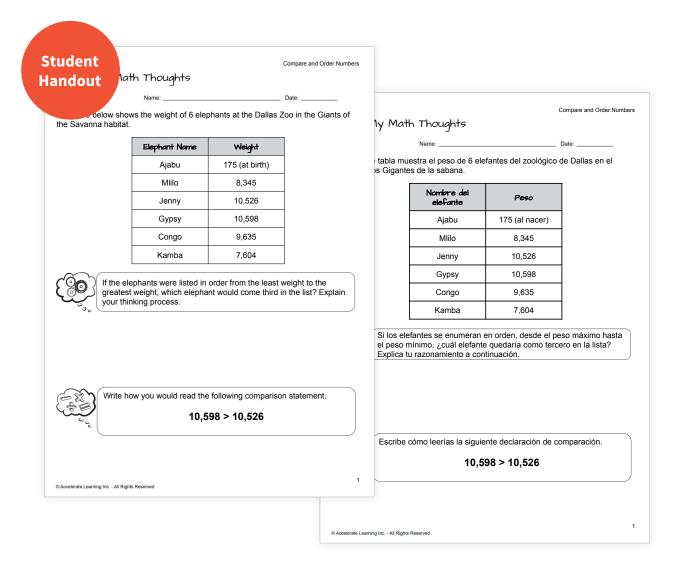
MY MATH THOUGHTS

Students have the opportunity to write out their mathematical thoughts and ideas using several avenues.

Preparation

• Allow students to have access to a variety of mathematical tools, such as place value blocks and fraction circles, and mathematical models such as place value charts, fraction walls, number lines, etc.

- 1. Allow students to discuss their thinking with neighbors before writing their thoughts on paper.
- 2. Encourage students to persevere through their thinking and to use mathematical tools and models as necessary.
- 3. Invite students to write their answers in complete sentences using correct spelling, grammar, and punctuation.







PICTURE VOCABULARY

Students build academic vocabulary and connect vocabulary to their experiences. This element is meant to be used in tandem with Explores.

Preparation

- · Prepare to project the Slideshow for the class.
- Print the Student Handout with multiple slides on one page for students to cut and add the Picture Vocabulary to their Interactive Notebooks.

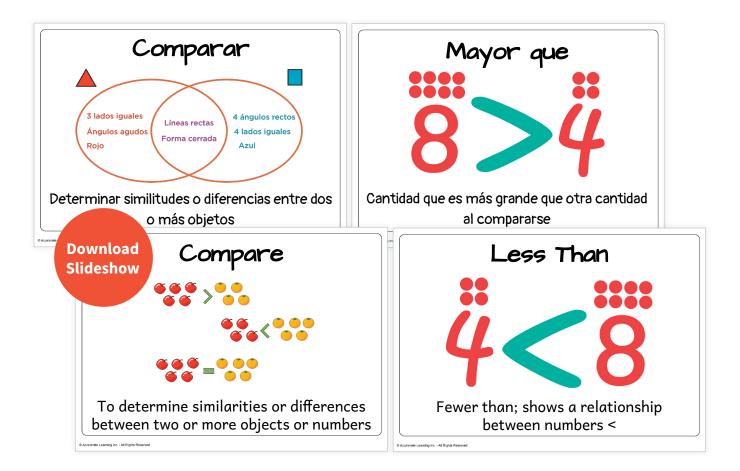
Procedure and Facilitation Points

- 1. Project the Slideshow for the class.
- 2. Read words and/or definitions with students. Discuss words or definitions that are unfamiliar to students.
- 3. Discuss the following questions:
 - a. How can you connect this word to your work in the Explore?
 - b. How would you rephrase the definition in your own words?
 - c. What do you picture in your mind when you hear this word?
- 4. To practice vocabulary with an engaging game, see Vocabulary Strategies in the Explain section of each Launch scope.
- 5. Refer to the Slideshow to review Picture Vocabulary as students complete each Explore.

Tips and Tricks

- Print the Student Handout with four slides on a page. Cut out each slide, and create a math word wall in the classroom.
- Download the Picture Vocabulary slides in the Teacher Toolbox under Essentials. Use this to create a slideshow without pictures, and print with multiple slides on one page. To foster student ownership of their own learning, allow students to add their own pictures.











Engage



Explore



Explain





Evaluate

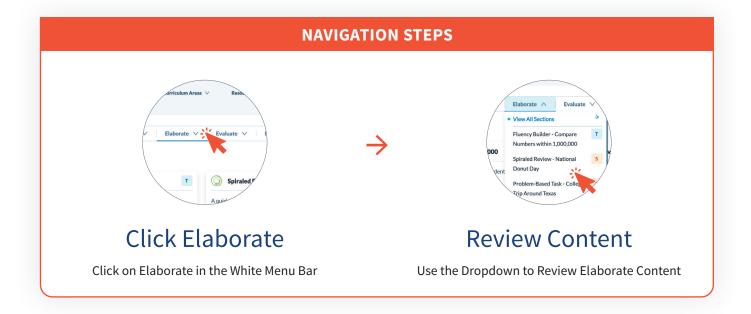


Intervention



Acceleration

Elaborate



Learning math requires a personalized approach. Each lesson's **Elaborate** section offers various resources and activities to differentiate instruction and deepen understanding of diverse learners. This section is ideal for small group instruction, center and station activities, and independent practice.



FLUENCY BUILDER - COMPARE NUMBERS WITHIN 1,000,000

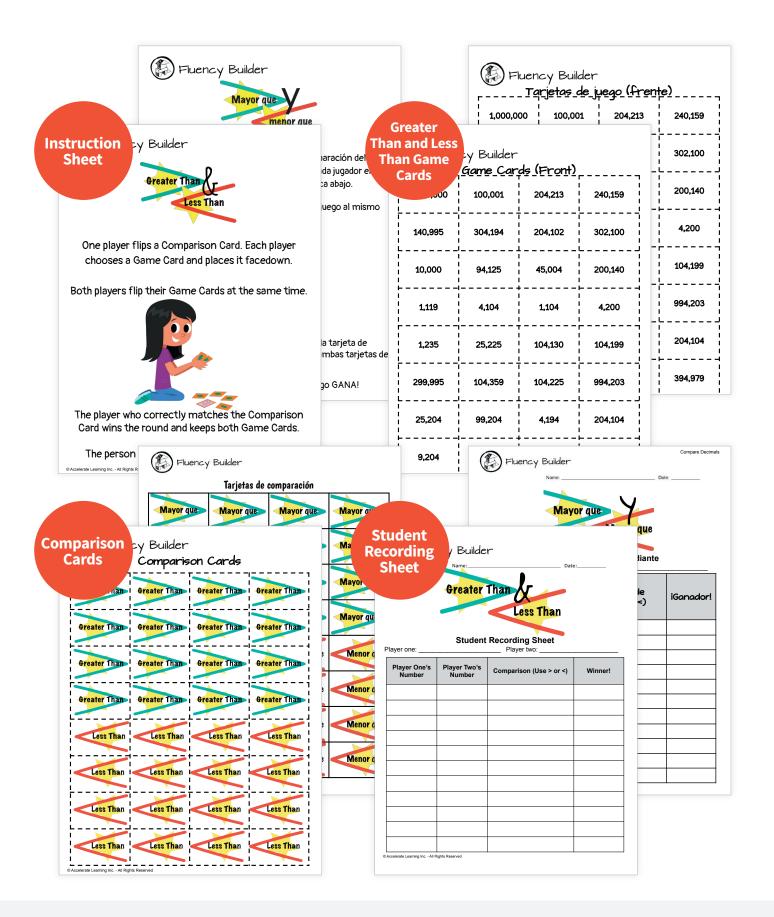
In this card game, pairs of students use their understanding of greater than and less than to compare.

Preparation

- · Print the Student Recording Sheet.
- Print and cut out sets of Comparison Cards and Game Cards.
- Print an Instruction Sheet to go with each set of Comparison Cards and Game Cards.
- Consider laminating all printed materials except for the Student Recording Sheet for long-term use. You can place smaller pieces in envelopes or resealable bags.

- 1. Ask for a student volunteer and demonstrate a couple of rounds of the game. Make sure you justify which Game Cards best fit the comparative value.
 - a. Shuffle the Comparison Cards, and set them down in a stack between the players. Shuffle the Game Cards, and then deal them equally between players.
 - b. Player one takes a turn drawing a Comparison Card and displaying this card faceup. Tell students that the Comparison Cards should remain in a stack on the table after each turn.
 - c. Each player selects a card from their hand that they think will most likely match the Comparison Card and places it facedown on the table.
 - d. Both players flip over their Game Cards and determine which card displays the greater-than or lessthan quantity as indicated on the Comparison Card. Tell students that the winner takes both Game Cards and places them in a stack in front of them.
 - e. After each turn, students should pause and record the comparison on their Student Recording Sheets.
 - f. Now player two takes a turn drawing a Comparison Card and displaying the card faceup. Play continues as stated above in steps c through e.
- 2. Group students into pairs.
- 3. Distribute materials.
- 4. Have students play until all Game Cards have been played. The player with the most Game Cards wins.
- 5. As students work, check that they are following instructions and comparing accurately.







INTERACTIVE PRACTICE - SPACE ACADEMY

Students practice skills that are aligned with the TEKS addressed in this lesson through engaging, fun games!







CAREER CONNECTIONS - METEOROLOGIST

Career Connections is meant to be an avenue that introduces your students to mathematical careers and the 21st Century Skills needed to succeed in those fields. These include, but aren't limited to, creativity and innovation, critical thinking, problem-solving, and technology skills. This scope highlights the career of a meteorologist. Students will consider the profession, the math used, and the impact this career has had on their community.

Preparation

• Group the students for rich collaboration and discourse.

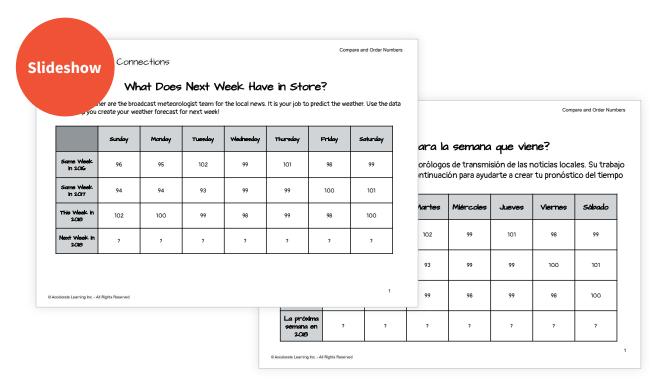
Procedure and Facilitation Points

Part I

- 1. Show the meteorologist career video clip to the students.
- 2. Orchestrate a conversation with the students, asking questions such as the following:
 - a. How do meteorologists compare numbers in their daily lives?
 - b. Did it seem difficult or easy to compare and order numbers in this way?
 - c. Have you ever predicted the weather before? How did you use numbers in your prediction?
 - d. Why do you think it is important to be able to compare and order numbers when dealing with weather?
 - e. Is this a career you are interested in? Why or why not?
 - f. How does a meteorologist use technology skills?

Part II

1. Pair the students and pass out the student handout.







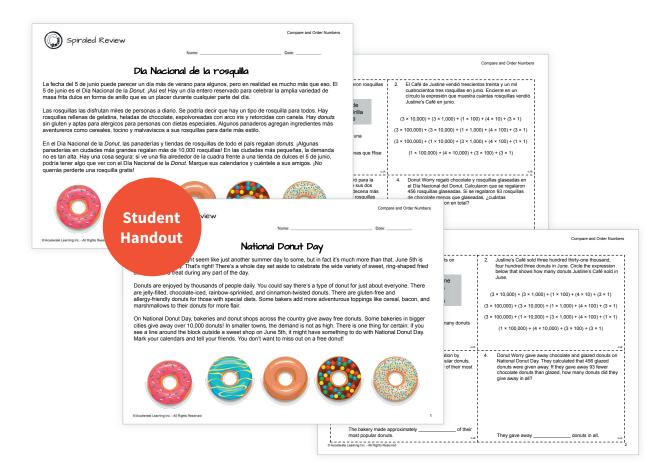
SPIRALED REVIEW - NATIONAL DONUT DAY

Students review previous or current grade-level content based on the focal points set for each grade.

Preparation

• Print a copy of the Spiraled Review handout for each student.

- 1. You may need to provide reading assistance in order for some students to complete this activity.
- 2. Read the story on the first page to engage student interest before moving on to the questions.
- 3. Use this spiraled review as a warm-up in class, or send it home for homework, but be sure to discuss answers and strategies with the class as a whole group.
- 4. Refer to the standard in the lower right-hand corner of each question box to assess the students' content knowledge or need for further intervention.



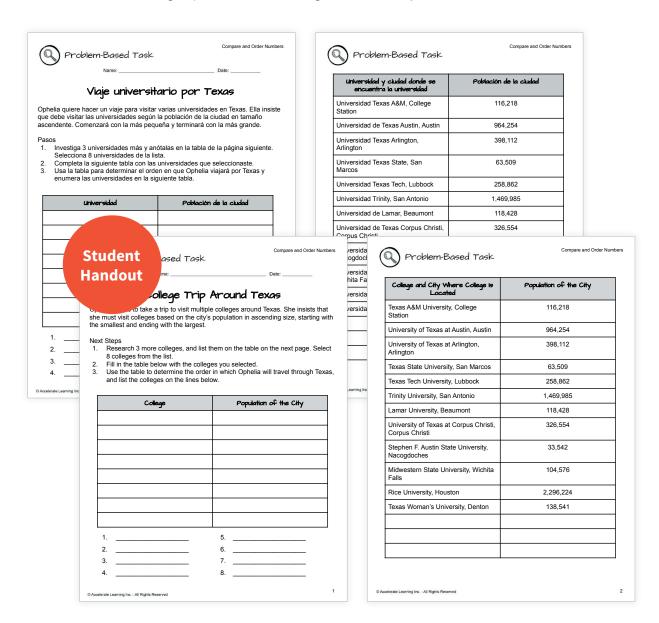




PROBLEM-BASED TASK - COLLEGE TRIP AROUND TEXAS

Students work collaboratively to apply the knowledge and skills they have learned to an open-ended, real-world challenge.

- 1. Allow students to work in groups.
- 2. Encourage students to look back at their Student Journals from the Explore activities if they need to review the skills they have learned.
- 3. If students are stuck, use guiding questions to help them think through it without telling them what steps to take next. If time permits, allow each group to share their solution with the class.
- 4. Discuss how different groups tackled the challenge in different ways.



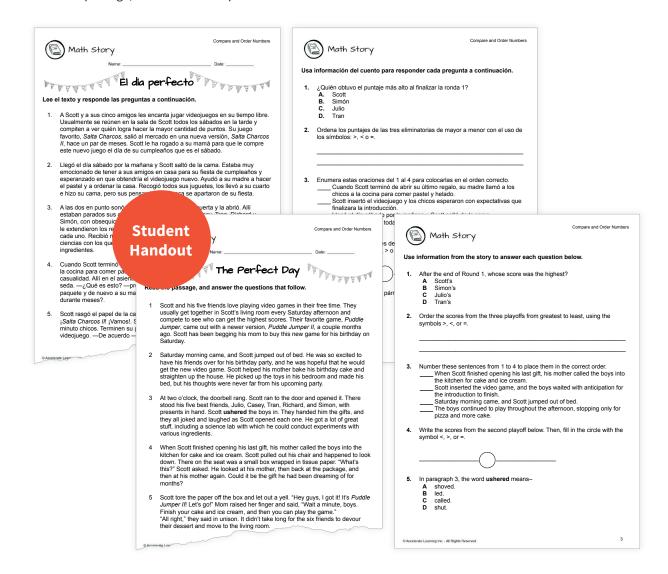




MATH STORY - THE PERFECT DAY

Lexile® 820L

Read the passage, and answer the questions that follow.











Engage



Explore



Explain



Elaborate

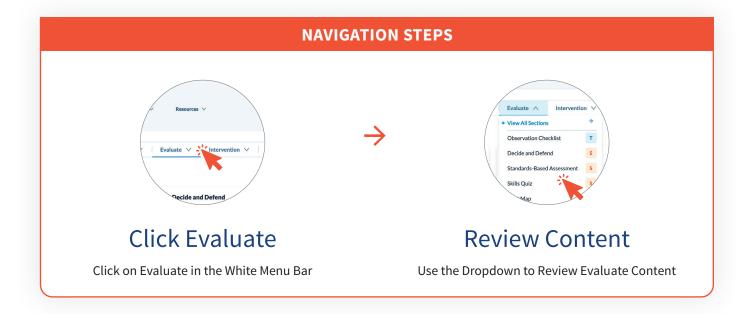








Evaluate



Assessments are intentionally integrated so that you can **evaluate** student progress and mastery. Collect data through TEKS-aligned assessments, along with student self-reflections and performance tasks.



OBSERVATION CHECKLIST Diagnostic

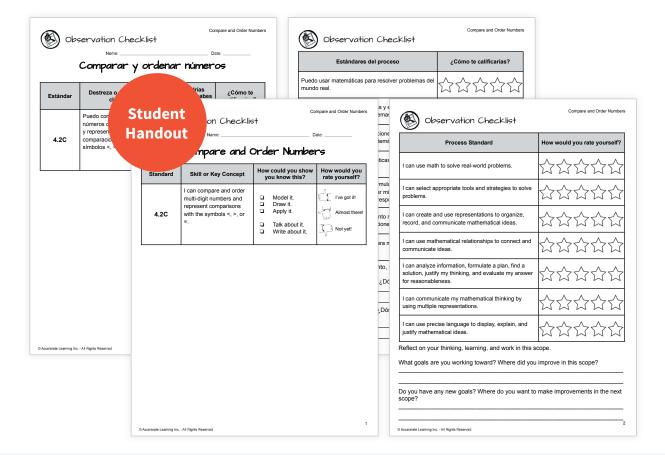
Formative

This element provides a breakdown of the key concepts and skills in the scope. It can be used as a formative assessment for teachers and as a self-assessment for students.

Preparation

Print a Teacher Handout and Student Handout for each student.

- 1. Distribute a Student Handout to each student.
- 2. As students are working through the Explore and Explain activities in the scope, formatively assess their progress by taking anecdotal notes on how key concepts and skills were observed. Reflection questions can be considered to measure the impact of whole-group and small-group activities.
- 3. Have students reflect on ways they can demonstrate their understanding and self-assess their progress on each key concept or skill as they work through both whole-group and small-group activities.
- 4. Students can reflect on their thinking, learning, and work in the scope; identify ways they have improved; and establish new learning goals.
- 5. Colleagues who provide instructional support to students can be equipped with the accommodations and modifications noted on the Teacher Handout.
- 6. Anecdotal notes provided on the Teacher Handout can be used as documentation for standards-based report cards.







DECIDE AND DEFEND Formative

Decide and Defend is an open-ended assessment that prompts students to reason mathematically and support their ideas with evidence.

Name:		Date:		C	ompare and Order Nu
Video Game (áurus		and Defend	J.	Simpare und Gradi Ma
The table to the right lists the highest scores ever recorded for the popular video game Number Madness. Gabriella thinks she is the best player because she has the highest score. Tim disagrees; he believes he has the highest score. Which video game guru is correct? Explain your reasoning in the space provided below.	Player	Score	Name:		Date:
	Sherri	984,134,580	os expertos en videojuegos		
	Mateo	981,432,850	· ·		
	Tim	984,042,270	na muestra los puntajes gistrados para el popular	Jugador	Puntaje
	Pete	993,432,158	de Números. Gabriela cree	Sherri	984,134,580
	Gabriella	984,042,798	adora porque tiene el im no está de acuerdo, él	Mateo	981,432,850
			puntaje más alto. ¿Cuál	Tim	984,042,270
			videojuegos está en lo u razonamiento en el	Pedro	993,432,158
			continuación.	Gabriela	984,042,798





STANDARDS-BASED ASSESSMENT Sumr

Summative

Students demonstrate mastery of the key concepts and skills in the scope through a standards-based summative assessment.

Preparation

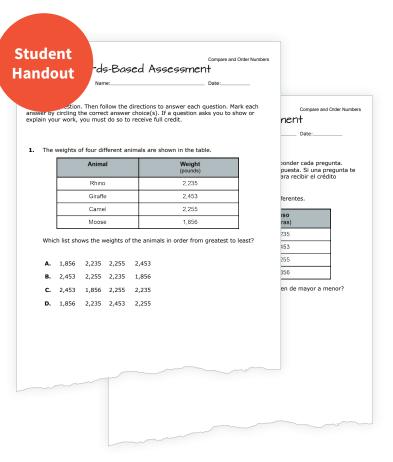
- Print a Student Handout for each student. The Student Handout can also be assigned digitally.
- Allow students to use manipulatives by request.
- Prepare Supplemental Aids for students who meet eligibility criteria.

Procedure and Facilitation Points

- 1. Distribute the Student Handout to each student.
- 2. Prompt students to show what they know in completing the assessment.
- 3. Allow students to reflect on their performances using the Heat Map.
- 4. Once student data has been collected after the assessment, refer to the Scaffolded Instruction Guide in the Home section of this scope to differentiate instruction for each student.

Tips and Tricks

- This element can be used as an assessment of learning and is intended to be assigned to students independently at their seats.
- Allow students to work with partners to review and rework problems they may have missed. Provide assistance as needed.
- The questions from this assessment can be found in the Assessment Bank and can be used to build a customized assessment.
- For test prep, print the Standards-Based Assessment, and cut out individual problems. Hang the problems along with chart paper around the classroom. Allow students to rotate through and solve each problem with partners. Challenge students to review the strategies already on the chart paper and use a different representation.
- The data from this assessment can be used to provide specific support and intervention.







SKILLS QUIZ Formative

Summative

Skills Quiz is a short, standards-based formative assessment to determine student mathematical fluency with the key concepts and skills in the scope.

Preparation

- Print a Student Handout for each student. The Student Handout can also be assigned digitally.
- Allow students to use manipulatives by request.
- Prepare Supplemental Aids for students who meet eligibility criteria.

Procedure and Facilitation Points

- 1. Distribute the Student Handout to each student.
- 2. Prompt students to show what they know in completing the assessment.
- 3. Allow students to reflect on their performances using the Heat Map.
- 4. Once student data has been collected after the assessment, refer to the Scaffolded Instruction Guide in the Home section of this scope to differentiate instruction for each student.

Tips and Tricks

- · This element can be used as an assessment for learning and can be assigned to students to complete independently at their seats or as part of a workstation.
- This element is a perfect opportunity to have a one-on-one conference with each student to discuss their performance, and it can be used as a foundation for setting individualized goals.
- The data from this assessment can be used to provide specific support and intervention.
- A Skills Quiz from a previous unit can also be used as a spiral review.









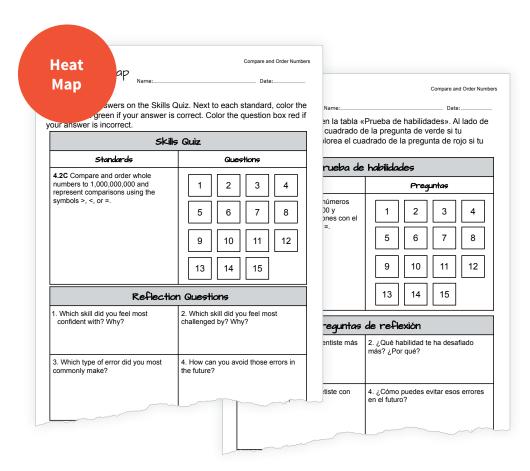
HEAT MAP Student Self-Reflection

Students analyze their assessment results and determine what they did well and where they can improve.

Preparation

- Determine if students will analyze their Skills Quiz, Standards-Based Assessment, or both.
- Print a Heat Map for each student.
- Gather a red crayon and a green crayon for each student.

- 1. Distribute a Heat Map to each student along with red and green crayons. Students should have their graded assessment(s) available.
- 2. Students use their graded assessment(s) to color-code the Heat Map. For each question answered correctly, students color the corresponding box green. For each question answered incorrectly, students color the corresponding box red.
- 3. Encourage students to look for patterns in their data, such as a certain standard that was missed more frequently or a standard they have clearly mastered, and use this information to reflect and set goals in the provided table.
- 4. Refer to the Scaffolded Instruction Guide found in the Home section to provide extension or additional support.





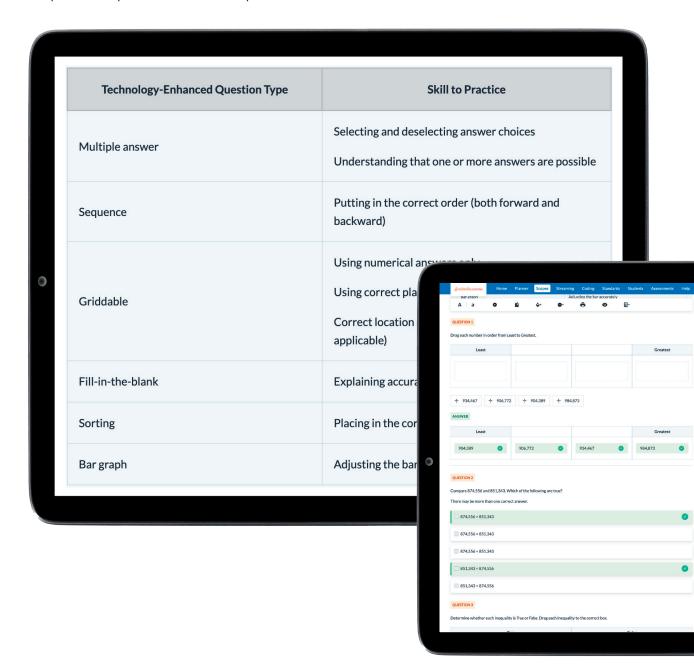


TECHNOLOGY-ENHANCED QUESTIONS

Technology-Enhanced Questions are designed to allow students to answer question types that are not possible in a paper/pencil format. These computer-based questions use formats that allow for non-conventional question types, including multiple answer, sequence, griddable, fill-in-the-blank, sorting, and bar graph.

Procedure and Facilitation Points

1. Students work individually to complete the questions digitally. This assessment is only available in a computer-based format. Assign students to the assessment before they begin so the system captures their responses and produces data on their performances.











Engage



Explore



Explain



Elaborate

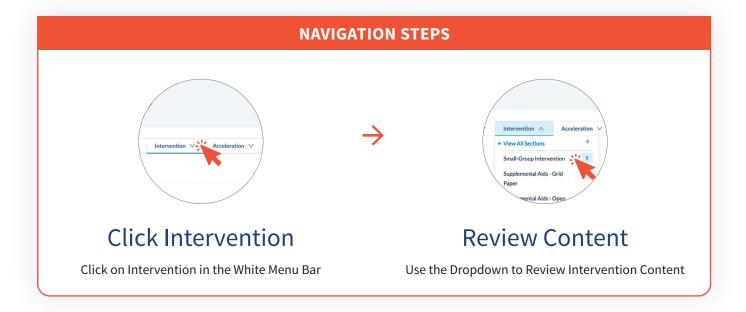


Evaluate





Intervention



Unleash the power of hands-on learning to provide targeted instruction and tackle conceptual misunderstandings head-on! Perfect for **intervention**, re-teaching, or test preparation, these dynamic resources are your go-to tools for transforming math challenges into triumphs in the classroom.



SMALL-GROUP INTERVENTION

Students compare and order whole numbers up to one billion using place value understanding and representing comparisons using the symbols >, <, or =.

Preparation

- Plan to have students work in pairs to complete this activity.
- · Gather a dry-erase marker for each student.
- · Print a Teacher Checklist.
- Print a Checkup for each student.

Part I

- · Print and cut apart a set of Digit Cards for each student. Place each set of cards in a resealable bag.
- Print a Comparing Place Value Mat on card stock for durability for each student. Cut and assemble the mat to show the periods in order.
- Place a set of place value disks into a resealable bag for each pair of students.

Part II

Print the Ordering Place Value Mat for each student. Place the mat into a sheet protector to create an
erasable surface.

Procedure and Facilitation Points

Part I: Compare Numbers

- 1. Distribute an assembled Comparing Place Value Mat, a set of Digit Cards, and a dry-erase marker to each student and a set of place value disks to each pair of students.
- 2. Instruct students to use the Digit Cards to create a number in the thousands on their Comparing Place Value Mat. Explain to students they need to create a different number from their partner.
- 3. Have students analyze the created numbers and use the place value disks to build each number on the mat by creating stacks of place value disks under each related place value. Discuss the following questions: (Answers will vary depending on the created numbers.)
 - a. How can you determine which place value disks to use for each place value? *Because I am building a number in the thousands, I will use the thousands, hundreds, tens, and ones place value disks to represent the digits in the thousands, hundreds, tens and ones places.*
 - b. How can you determine the correct amount of place value disks to represent each digit? If I am representing 4 thousands in the thousands place, then I will use 4 place value disks to represent the digit in the thousands place. If I am representing 3 hundreds in the hundreds place, then I will use 3 place value disks to represent the digit in the hundreds place. We would continue this process until we have represented each digit in our number.



- 4. Instruct students to use their Place Value Mat and place value disks to record their number in expanded form on the table below the mat using the dry-erase marker. Challenge student pairs to explain which number is greater and how they know. Discuss the following questions: (Answers will vary depending on the created numbers.)
 - a. How can we use the place value disks to help us write our number in expanded form? We can start by representing the place value disks in the greatest place value. If we have 4 thousands represented with place value disks, we would write 4,000. If we have 3 hundreds represented with place value disks, we can add on to the value by writing 4,000 + 300. We can continue this process until we have represented each digit in our number.
 - b. What do you notice? Both 4,356 and 4,275 have a value of 4,000 in the thousands place, but I have three hundreds and my partner has two hundreds in the hundreds place.
 - c. How can we use the place value disks and expanded form to help us compare our numbers? We can start by comparing the place value disks in the greatest place value. If both numbers have the same digits in the thousands place then we will move to the next place value. If the numbers have different digits in the hundreds place, then we know the number with the greater digit in that place has the greater value.
- 5. Once students compare their numbers in expanded form, challenge them to write their numbers using greater than and less than symbols. Discuss the following questions: (Answers will vary depending on the created numbers.)
 - a. How can we use symbols to help us write two comparison statements? 4,356 > 4,275 and 4,275 < 4,356
 - b. How can we express the relationship between the two numbers? 4,356 is greater than 4,275 and 4,275 is less than 4.356.
- 7. Check student work for accuracy and correct any misunderstandings.
- 8. Have students remove their digit cards from the mat, put the place value disks back in the pile, and erase their work from the table.
- 9. Repeat the process by having students use the Digit Cards to create a number up to the hundred thousands place on their Place Value Mat.
- 0. Instruct students to represent each number on the Place Value Mat by creating stacks of place value disks under each related place value. Students should continue to write their numbers in expanded form on the table.
- 10. Have students write both numbers using comparison symbols on the table. Encourage students to use mathematical language to express how they know their number is greater than or less than their partner's number.
- 11. Check student's work for accuracy and correct any misunderstandings.
- 12. Have students remove their digit cards from the mat, put the place value disks back in the pile and erase their work from the table.
- 13. Repeat the process one last time by having students use the Digit Cards to create a number up to the hundred millions place on their Place Value Mat. Encourage students to compare the numbers without using their place value disks or writing them out in expanded form.
- 14. Discuss the following questions:
 - a. How do you know your number is greater than or less than the number your partner created? *Listen for student understanding of the value of the digits represented in each number.*
 - b. Which place values are the most helpful when comparing numbers? The greatest place values are the most helpful. The least place values do not help if there are different digits in the greater place values.



Part II: Order Numbers

- 1. Distribute an Ordering Place Value Mat and a dry-erase marker to each student.
- 2. Instruct students to write the following numbers on their Place Value Mat: 123,456, 123,754, and 123,654. Discuss the following questions:
 - a. What do you notice about these numbers? The digits in the hundred thousands place, the ten thousands place, and the thousands place are the same.
 - b. We need to order these numbers from greatest to least. In what place value should we start? The hundreds place
 - c. What do you notice about the numbers in the hundreds place? One number has 4 hundreds, one number has 7 hundreds, and one number has 6 hundreds.
 - d. Which number is the greatest? 700 is greater than 600 or 400, which makes 123,754 the greatest number.
- 3. Instruct students to circle the 7 in the hundreds place of 123,754 and to write a G for *greatest* beside it. Discuss the following question:
 - a. Which number is the least? 400 is less than 600, which makes 123,456 the least number.
- 4. Instruct students to circle the 4 in the hundreds place of 123,456 and write an L for least beside it.
- 5. Instruct students to use their dry-erase markers to write the greatest number on the table first, followed by the next greatest number, and then the number that is the least.
- 6. Challenge students to place the correct comparison symbols between each number. Discuss the following questions:
 - a. What do you notice about the numbers on the table? They are in order from greatest to least.
 - b. Explain which comparison symbols can be placed in between each number. We can place the greater than symbols in between each number because the first number is greater than the second number and the second number is greater than the last number.
 - c. Explain how we can use this order of greatest to least to create an order of least to greatest. We can reverse this order by placing the least order at the beginning and the greatest number at the end. The middle number will remain in the middle.
- 7. Have students write both comparison statements and express the relationship between the numbers using mathematical language. 123,754 > 123,654 > 123,456; 123,754 is greater than 123,654 and is greater than 123,456. 123,456 < 123,654 < 123,754; 123,456 is less than 123,654 and is less than 123,754.
- 8. Repeat the process using the following number sets:

```
1,485,369; 1,487,301; 1,454,386
223,847; 223,849; 223,841
25,987,459; 25,897,459; 25,789,459
```

9. Afterward, allow time for students to complete the Checkup individually.



(MAT) Checkup	Compare and Order Numbers	(Mar) Checkup	Compare and Order Numbers	Formative
Name:	Date:	Dos estudiantes debaten sobre quién tie números. Encierra con un círculo el nom correcto y justifica tu respuesta.		
 El maestro de Sara hizo una lista de 	los siguientes números en el tablero:	Estudiante y respuesta	Justifica tu respuesta	
comparación correcta podría Sara h	143,376 143,498 ue comparen dos de los números. ¿Qué aber elegido? 43,498 < 134,856	Sam Ordené mis números del mayor al menor.		
A continuación se muestra una lista	43,376 > 143,498 de algunas de las ciudades más pobladas I Censo de EE. UU. Utiliza los símbolos de	23,567; 23,549; 23,459; 21,989		
comparación y escribe los números		Tim		
Ciudades de Texas	Población	Ordené mis números del mayor al		
Garland	236,897	menor.		
San Antonio	1,369,845	21,989 > 23,459 > 23,549 > 23,567		
Irving	236,607	4. Escribe un número que haga que la orac	ción sea correcta.	
Dallas	29	238,522,409 <		
	checkup State Sta	Date:	Two students were debating about who numbers. Circle the name of the studer answer.	at who was correct, and justify your
	143,345 134,856	143,376 143,498	Student and Answer	Justify Your Answer
	ompare two of the numbers. Which correct ?	Sam I ordered my numbers from greatest to least.		
	A. 143,376 < 143,345 C. 1	143,498 < 134,856	23,567, 23,549, 23,459, 21,989	
	B. 143,345 < 143,498 D. 1	143,376 > 143,498	20,007 , 20,0 10, 20, 100, 2 1,000	
	 Below is a list of some of the most p US Census Bureau. Write the numb comparison symbols. 	opulated cities in Texas according to the ers in order from greatest to least using	Tim	
	Texas Cities	Population	I ordered my numbers from least to greatest.	
	Garland	236,897	21,989 > 23,459 > 23,549 > 23,567	
	San Antonio	1,369,845		1
	Irving	236,607	Write a number that makes the number	sentence true.
	Dallas	1,317,929	238,522,409 <	
	Austin	931,820	200,022,100	•
		0-0-		

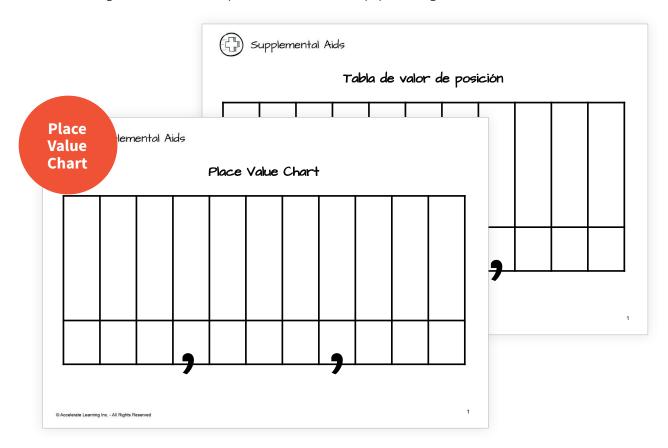




SUPPLEMENTAL AIDS - PLACE VALUE CHART

Students use a place value chart to visualize place value.

- Place value charts can be used to assist students in visualizing place value in order to perform the following functions:
 - Represent values of numbers
 - Use expanded notation
 - Explain the relationship between the digits of numbers
- Place value charts will vary in the number of places, based on grade level.
- Model how to use the place value chart:
 - Display the appropriate place value chart for students to observe, based on grade level.
 - Starting from the right, fill in the name of each place value in the first row (ones, tens, etc.).
 - Write a random number in the second row.
 - Just as we read a number, the mat is read left to right. Practice reading the number aloud.
- If possible, laminate the place value chart so that it can be used repeatedly after the students have filled in the place value names in the first row.
- Encourage students to draw a place value mat on their paper during assessments as needed.











Engage



Explore



Explain



Elaborate



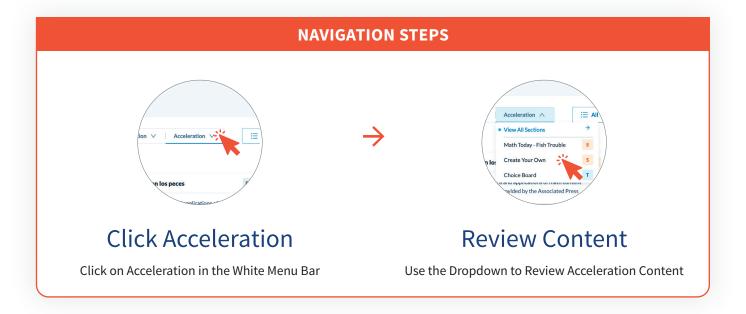
Evaluat



Intervention



Acceleration



Acceleration activities allow students to dive deeper into the content and its applications, enhancing their understanding and engagement. These enrichment activities are designed for all students, providing opportunities to explore advanced concepts and develop critical thinking skills.



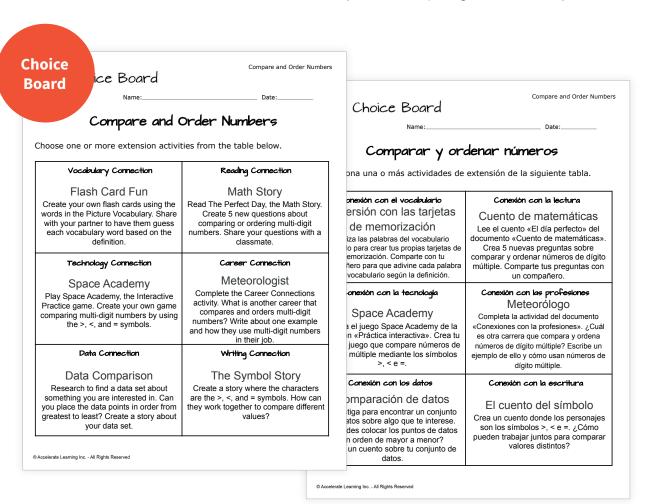
CHOICE BOARD

Students explore real-world connections and applications of math content through interactions with engaging activities.

Preparation

- Print a Choice Board for each student.
- Plan ahead for technology use. Access to other activities within the scope may be required for some options on the Choice Board.
- This activity can be completed in class or at home.

- 1. Distribute a Choice Board to each student.
- 2. Allow students time to examine the Choice Board and select the activities they would like to explore.
- 3. Encourage students to attempt at least three activities on the Choice Board.
- 4. If time allows, have students share the connections they made in completing the activities they chose.



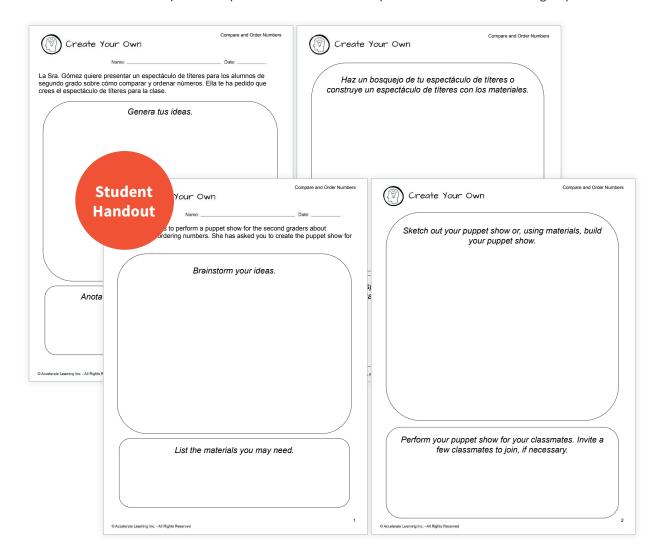




CREATE YOUR OWN

Create Your Own is an enriching activity for students to be able to create their own inventions, plays, songs, technology apps, and more!

- 1. Distribute a Create Your Own student handout to each student.
- 2. Allow time for them to be as creative as possible! There is no boundary to their creativity on this activity.
- 3. Invite each student to present or perform his or her creative product to the class or small group.





Stress from Heat: Drought on Fish Spurs Push to Reduce Kills

GRANTS PASS, Ore. (AP) - Salmon and trout are in danger. Drought and record hot weather are

The Wild Fish Conservancy collected data on 54 rivers. They released it on Wednesday. The rivers are located in Oregon, California, and Washington. The data collected showed three-fourths of the rivers had hotter temperatures than normal. The rivers were reading higher than 70 degrees. The

hot rivers are very dangerous for salmon and trout. It can cause them to die.

producing dangerous conditions for them in the West



MATH TODAY - WATER SOURCES

Students will explore connections and applications of math and other cross-curricular content through interactions with authentic, real-world events.

Procedure and Facilitation Points

- 1. Allow students to read the article. Briefly discuss factors that lead to a change in the salmon and trout population.
- 2. Discuss:
 - a. There were 47,826 salmon in an Oregon river. After a slight increase in water temperature, the population was 47,498 salmon. Compare these two populations, using <, >, or =. 47,826 > 47,489

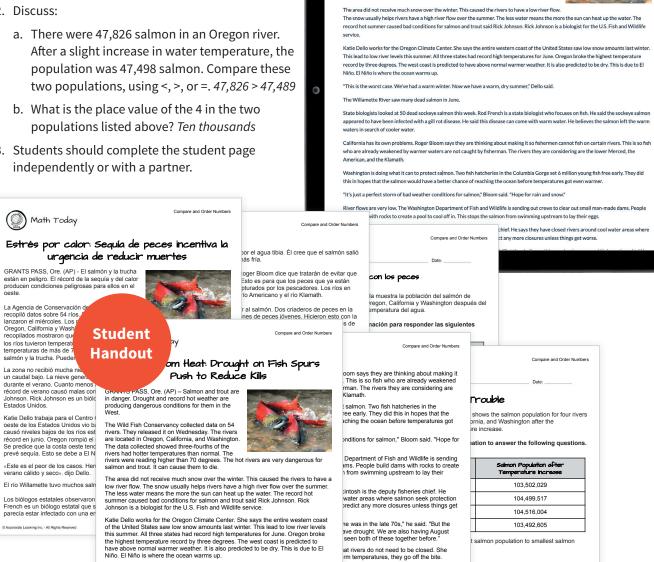
"This is the worst case. We've had a warm winter. Now we have a warm, dry

State biologists looked at 50 dead sockeye salmon this week. Rod French is a state biologist who focuses on fish. He said the sockeye salmon appeared to have been infected with a gill rot disease. He said this disease can come with warm water. He believes the salmon left the warm waters in search of cooler water.

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The Willamette River saw many dead salmon in June.

- b. What is the place value of the 4 in the two populations listed above? Ten thousands
- 3. Students should complete the student page independently or with a partner.



ver got really hot in the fall," she recalled. vetter chance of one jumping in the boat ut fishing. If people are not catching, they

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d less people will go.

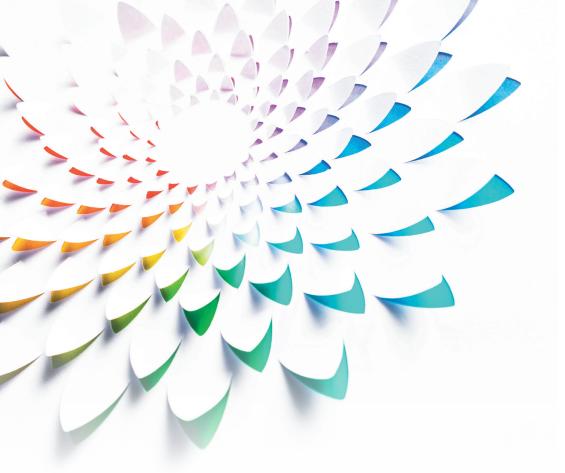


pare the salmon population of the following

n greater than that of the Klamath River but

population to the Skykomish River's

North Santiam











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