Teacher Edition Sampler
Grade K

Reveal MATH®

Reveal the Full Potential in Every Student

Kindergarten

Unit 2:
Numbers 0 to 5

UNIT 2 PLANNER
Numbers to 5

PACING: 13 days

LESSON		MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE
Unit Opener	IGNITE! Tall Towers	Informally use the concepts of one-to-one correspondence, counting, and more/less		
2-1	Count 1, 2, and 3	Students understand the relationship between numbers and quantities when using objects and illustrations to count 1, 2, and 3.	Students articulate the relationship between numbers and objects in a group of 3 by counting to 3.	Students identify personal traits that make them good students, peers, and math learners.
2-2	Represent 1, 2, and 3	Students count groups of objects to 3, regardless of their arrangement, and recognize the numerals 1, 2, and 3.	Students articulate numerals 1, 2 and 3 by matching them to sets of 1, 2, and 3 objects.	Students actively listen as peers describe how they approached a mathematical task.
2-3	Count 4 and 5	Students understand the relationship between numbers and quantities when using objects and illustrations to count 4 and 5.	Students articulate the relationship between numbers and objects in a group of 5 by counting to 5.	Students understand and explain a problem-solving process, including how a correct solution was found.
2-4	Represent 4 and 5	Students count groups of objects to 5, regardless of their arrangement, and recognize the numerals 4 and 5.	Students articulate numerals 4 and 5 by matching them to sets of 4 and 5 objects.	Students exchange ideas for problem-solving with a peer and provide constructive feedback.
2-5	Represent 0	Students identify zero as a group with no objects, and recognize the numeral 0.	Students articulate the numeral 0 by matching it to a group with no objects.	Students practice staying focused on a mathematical problem for the set time.
2-6	Numbers to 5	Students identify numbers from 1 to 5 in sequence understanding that each successive number name is referring to an amount that is one larger.	Students identify the next successive number to 5 when counting by stating the number.	Students practice 1-3 minutes of mindful meditation prior to mathematical work.
2-7	Equal Groups to 5	Students use one-to-one correspondence to determine whether groups are equal to each other.	Students justify that two groups are equal by using one-to-one matching correspondence.	Students employ self-calming techniques that can be used to help manage reactions to potentially frustrating situations.
2-8	Greater Than and Less Than	Students use one-to-one correspondence to determine whether one group is greater than or less than the other group.	Students explain which group is greater than or less than by using one-to-one matching correspondence.	Students identify a problem and execute the steps necessary to solve the problem.
2-9	Compare Numbers to 5	Students use counting to compare two groups.	Students compare groups by expressing greater than, less than or equal to.	Students practice drawing to describe the logic and reasoning used to make a mathematical decision.
Math Probe	**Who Has More Stickers?**	Gather data on students' understandings of counting items comparing totals		
Unit Review				
Fluency Practice				
Performance Task				
Unit Assessment				

FOCUS QUESTION:
How do I count, show, and compare numbers?

LESSON	KEY VOCABULARY		MATERIALS TO GATHER		RIGOR FOCUS	STANDARD
	Math Terms	Academic Terms				
2-1	one (1) two (2) three (3)	count explain	• bags • connecting cubes • counters	• signs showing cubes	Conceptual Understanding	K.CC.B.4a
2-2	one (1) two (2) three (3)	model order	• connecting cubes • counters • spinner		Conceptual Understanding, Procedural Skill	K.CC.B.4b
2-3	four (4) five (5)	count explain	• connecting cubes • counters • signs showing cubes		Conceptual Understanding	K.CC.B.4a
2-4	four (4) five (5)	model order	• bags • connecting cubes • counters	• *Number Cards 0–10* Teaching Resource	Conceptual Understanding, Procedural Skill	K.CC.B.4b
2-5	zero (0)	example explain	• baskets • connecting cubes • counters	• *Dot Cards 1–5* Teaching Resource • *Number Cards 0–10* Teaching Resource	Conceptual Understanding, Procedural Skill	K.CC.A.3
2-6	one more	explain represent	• connecting cubes • counters	• *Number Cards 0–10* Teaching Resource • *One More* Teaching Resource	Conceptual Understanding, Procedural Skill	K.CC.B.4
2-7	equal equal group matching	compare relate	• connecting cubes		Conceptual Understanding	K.CC.C.6
2-8	fewer greater than less than more	compare describe	• classroom objects placed in bags • counters		Conceptual Understanding	K.CC.C.6
2-9	greater than less than	compare relate	• connecting cubes • counters	• *Dot Cards 1–5* Teaching Resource • spinners	Conceptual Understanding	K.CC.C.6

Unit Overview

Focus

Count and Compare Numbers 0 through 5

This unit develops early quantitative reasoning skills as students count and compare numbers to 5. Students practice the sequence of number names as they count by 1s. They learn the relationship between number names and quantities—and that the later a number is counted in a sequence, the greater the quantity it represents. Specifically, each successive number they count refers to a quantity that is one greater than the previous number. Students apply the strategies of one-to-one correspondence and counting when they determine if the number of objects in one group is greater than, is less than, or is equal to the number of objects in another group.

When counting, students learn to pair each object with one and only one number name. Students apply this concept when they understand that the number word they say tells the quantity in the group and that the last number they count represents the total number of objects counted.

Students discover that the number of objects in a group is the same regardless of the arrangement of the objects or the order in which the objects are counted.

Students make comparisons by matching objects from one group with objects from another group. After matching the objects of two groups, students determine if the groups are equal or if one group is greater or less. Students also count objects in each group, then determine in which group the number of objects is greater or less.

Coherence

What Students Have Learned

- Students bring a varied amount of prior knowledge to the classroom.

What Students Are Learning

- **Counting** Students count objects to 5 by pairing each object with one number. They understand that each number in the counting sequence represents a quantity one greater than the preceding number. Students will also represent numbers to 5.
- **Zero** Students represent a group of no objects with the numeral zero (0).
- **Comparing** Students compare the numbers of objects in two groups to determine if the groups are equal, or if one group is greater. Students compare by matching and counting the objects.

What Students Will Learn

- **Counting** Students count up to 10 objects and understand the relationship in the counting sequence up to 10. Students also represent numbers to 10 (Unit 3).
- **Comparing** Students compare groups of up to 10 objects using the words *greater than* and *less than* (Unit 3).
- **Inequality Symbols** Students compare numbers using the greater than and less than symbols (Grade 1).

Rigor

Conceptual Understanding

Students develop understanding of

- counting groups with up to 5 objects and each number said in the counting sequence represents one more;
- a group with no objects is represented with zero;
- matching objects and counting objects in two groups can determine if the groups are equal or if one is greater.

Procedural Skill and Fluency

Students build proficiency with

- counting up to 5 objects;
- representing the number of objects in a group with manipulatives and numerals;
- counting to find one more in the counting sequence;
- finding equal groups by matching and counting.

Application

Students apply their knowledge of

- counting to determine the number of objects in a group and representing numbers up to 5 with manipulatives and a numeral;
- showing one more with manipulatives;
- determining if two groups are equal, or if one is greater than the other by matching and counting.

ETP Effective Teaching Practices

Elicit and Use Evidence of Student Thinking

Use questioning and discussion to determine students' understanding throughout the unit. Students' conversations and responses will help determine the support that is needed. As you move through each lesson in the unit, spend time questioning students about the material to assess their progress and understanding.

- Provide discussion opportunities among students and as a class to share ideas and to ask and answer questions.
- Pose questions to allow students to connect the current lesson to the previous lesson. Asking how ideas are similar and different can give insight on student understanding.
- Allow students to justify their thinking in their own words. Language or vocabulary support can be provided as needed, but encourage students to express their thinking in their own words.

MPP Math Practices and Processes

Look for and Make Use of Structure

This unit introduces students to numerals 0 through 5 and makes the connection between numerals and number names.

Students will have opportunities to count different objects, which will help them connect a number name with an amount. Students will also see that the arrangement of the objects does not change the number in the group.

In addition, students will use the structure of matching objects in two groups to determine if the two groups are equal or if one is greater.

Some suggestions to help students identify these connections and structure are:

- Show representations of numbers using different objects and in differing arrangements. Have students identify how the representations are connected and how they relate back to the number being discussed.
- Allow students time to represent each number using different objects. Students can then discuss how the representations are alike and different.
- Encourage students to use a strategy such as matching when comparing numbers, and have them justify their answer.

SEL Social and Emotional Learning

What Skills Will We Develop?

- **Self-Awareness–Self-Confidence** (Lesson 2-1): Self-confident students are more willing to take risks, allowing them to learn from mistakes.
- **Self-Regulation–Metacognition** (Lesson 2-3): Students who think about their own thinking can develop understanding of themselves as math learners, which leads to more meaningful learning experiences.
- **Self-Regulation–Maintain Focus** (Lesson 2-5): Students who can maintain focus are more likely to persist through challenging tasks.
- **Self-Regulation–Manage Emotions** (Lesson 2-6): When students emotions are balanced, they are more receptive to learning.
- **Self-Regulation–Manage Reactions** (Lesson 2-7): Students who can regulate their reactions are better able to navigate and solve problems.
- **Responsible Decision-Making–Problem Solving** (Lesson 2-8): Efficient problem solvers can make informed decisions that lead to solutions.
- **Responsible Decision-Making–Logic and Reasoning** (Lesson 2-9): When students think logically and apply reasoning, they can make informed decisions to help them find solutions.
- **Social Awareness–Respect Others** (Lesson 2-4): When students are respectful of one another, they strengthen their class community.
- **Relationship Skills–Effective Communication** (Lesson 2-2): Students who can communicate effectively are more likely to build strong relationships and contribute to a positive classroom culture.

LOM Language of Math

Vocabulary

Students will be using these key terms in this unit:

- **Zero (0)*** (Lesson 2-5): *Zero* is introduced after the numerals 1 through 5 and shown to represent a group with no objects.
- **One (1)*** (Lessons 2-1 and 2-2): Students learn to count and represent one object.
- **Two (2)*** (Lessons 2-1 and 2-2): Students learn to count and represent two objects.
- **Three (3)*** (Lessons 2-1 and 2-2): Students learn to count and represent three objects.
- **Four (4)*** (Lessons 2-3 and 2-4): Students learn to count and represent four objects.
- **Five (5)*** (Lessons 2-3 and 2-4): Students learn to count and represent five objects.
- **Equal*** (Lesson 2-7): Groups are identified as *equal* when each object in one group can be matched with each object from another group.
- **Fewer*** (Lesson 2-8): *Fewer* is a comparison word meaning *the group with a lesser number of items.*
- **Greater Than*** (Lessons 2-8 and 2-9): When comparing groups, the group with more is described as *greater than* the other number.
- **Less Than*** (Lessons 2-8 and 2-9): After comparing groups to determine which group has fewer, the number of objects is described as *less than* the other number.
- **One More*** (Lesson 2-6): *One more* is used to connect each number to the next consecutive number by drawing 1 "more" of an item.

*This is a new term.

MLD Math Language Development

A Focus on Speaking

Ask students to explain their reasoning throughout the unit. It may be easier for students to express ideas about day-to-day real-world events compared to mathematical ideas. It is important for students to use math vocabulary properly when speaking about the work they are doing. Allow students to speak to their ideas in a comfortable manner, asking them to use proper mathematical terms after hearing an explanation in day-to-day language.

Break down overlap vocabulary. Students may need substantial support as they try to make sense of what problems are asking. Many words in the English language have two meanings or more. Allow students to think through such words by showing them how they are used in day-to-day language, but in a manner that will be applicable to the problem at hand. Ask student to explain their reasoning throughout the unit.

Think-pair-share. As math activities are presented, students may benefit from talking with a partner. Sharing in this intimate setting first may be less threatening than sharing with the whole group.

EL English Language Learner

Numbers to 5

In this unit, students are provided with a number of scaffolds to support their comprehension of the language used to present and explain numbers to 5. Because many of the words and phrases used in this section are likely unfamiliar or unknown, students are supported in understanding and using these words.

- Lesson 2-1 – *have/has*
- Lesson 2-2 – *tell*
- Lesson 2-3 – *show*
- Lesson 2-4 – *Use ____ to show _____.*
- Lesson 2-5 – *represent*
- Lesson 2-6 – *If we ___, there will be ___.*
- Lesson 2-7 – *How can you tell if ___?*
- Lesson 2-8 – *compare*
- Lesson 2-9 – *How can/does counting help to compare?*

Number Routines

Build Fluency The number routines found at the beginning of each lesson help students build number sense and operational fluency. They also help students develop the thinking habits of mind that are important for proficient doers of math.

What Did You See?

- **Purpose:** Build visual discrimination, quantitative reasoning, and mathematical discourse.
- **Overview:** Students view an image for up to 5 seconds, then describe and discuss what they saw (or what they think they saw). Students see the image a second time, this time with no time constraint. They compare what they think they saw with the actual image.

Would You Rather?

- **Purpose:** Build flexibility with number sense and mental math operations; enhance decision-making.
- **Overview:** Students choose between two options, both of which require mental computation. Students explain their choice and their rationale for their choice.

Sense-Making Routines

- **Notice & Wonder**™ (all lessons in this unit)

For the Notice & Wonder routines, students are given an image and asked to tell about it and share any questions they may have. The sense-making routines are meant to provide an entry point into the lesson for all students. This is not a time to answer a question or teach the math objective, but rather to get students thinking in a comfortable setting.

The teacher is to guide the students in telling about the image. Probing questions are provided for the teacher to guide the discussion, ensuring that students touch on the math-related concept of the lesson.

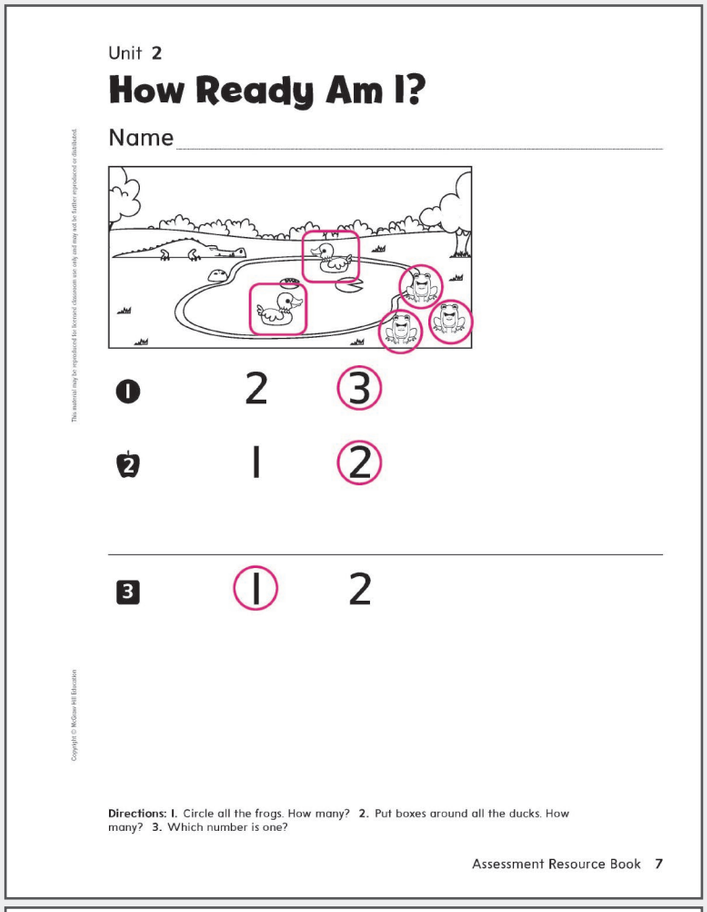
In this unit, students will see images of animals. Students may have much to share and ask about the animals, but by the end of the discussion, the teacher is to guide students to think about the image in relation to the lesson topic. The provided questions will help lead students to think about the number of animals or how the two groups relate to each other regarding the number of animals in each group.

Math Language Routines

The Mathematical Language Routines used in this unit give teachers a structured, yet adaptable format for amplifying and developing students' social and academic language. These routines can also be used as formative assessment opportunities as students develop proficiency in English and mathematical language. They can be used in ways that support real-time-, peer-, and self-assessment. For more information on the Math Language Routines, see the Appendix

- Lesson 2-1: In order to support sense making, students participate in MLR8: Discussion Supports.
- Lesson 2-2: In order to support sense making and optimize output, students participate in MLR5: Co-Craft Questions and Problems.
- Lesson 2-3: In order to support sense making, students participate in MLR8: Discussion Supports.
- Lesson 2-4: In order to cultivate conversation, students participate in MLR 4: Information Gap.
- Lesson 2-5: In order to support sense making and optimize output, students participate in MLR2: Collect and Display.
- Lesson 2-6: In order to support sense making and optimize output, students participate in MLR8: Discussion Supports.
- Lesson 2-7: In order to support sense making and optimize output, students participate in MLR8: Discussion Supports.
- Lesson 2-8: In order to support sense making and optimize output, students participate in MLR4: Information Gap.
- Lesson 2-9: In order to support sense making and optimize output, students participate in MLR2: Collect and Display.

Readiness Diagnostic



Unit 2

How Ready Am I?

Name _____

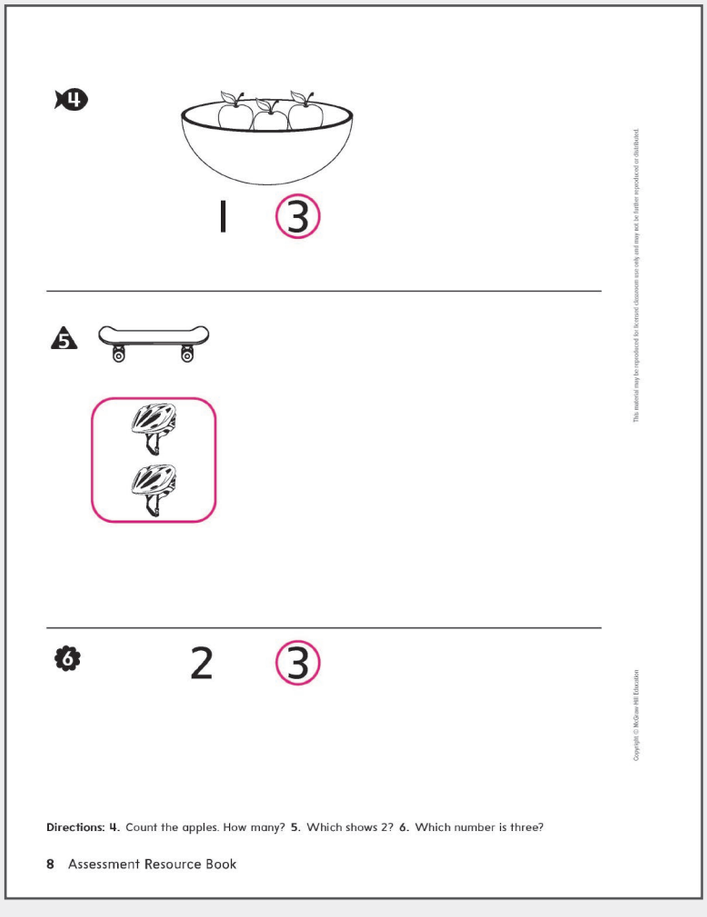
1 2 3

2 1 2

3 1 2

Directions: 1. Circle all the frogs. How many? 2. Put boxes around all the ducks. How many? 3. Which number is one?

Assessment Resource Book 7



4

1 3

5

6 2 3

Directions: 4. Count the apples. How many? 5. Which shows 2? 6. Which number is three?

8 Assessment Resource Book

Administer the Readiness Diagnostic to determine your students' readiness for this unit.

Targeted Intervention

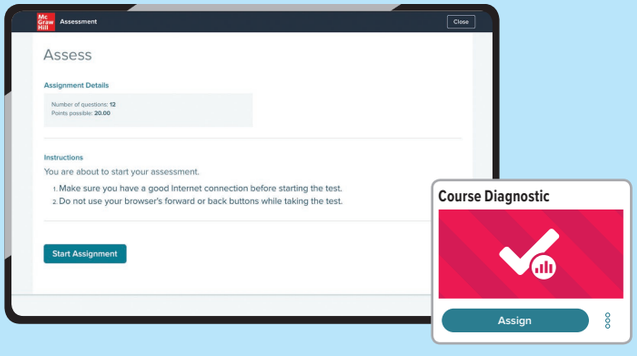
Use Guided Support intervention lessons available in the Digital Teacher Center to provide targeted intervention.

Item Analysis

Item	DOK	Skill	Guided Support Intervention Lesson	Standard
1	1	Count how many	Count to 3 with Dots as Objects	K.CC.B.5
2	1	Count how many	Count to 3 with Dots as Objects	K.CC.B.5
3	1	Identify numbers	Recognize Numerals 1, 2, and 3	K.CC.A.3
4	2	Count how many	Count to 3 wih Dots as Objects	K.CC.B.5
5	2	Count how many	Count to 3 with Dots as Objects	K.CC.B.5
6	1	Identify numbers	Identify Numerals 1, 2, and 3	K.CC.A.3

GO ONLINE

Assign the digital Readiness Diagnostic to students or download and print PDFs from the Digital Teacher Center.



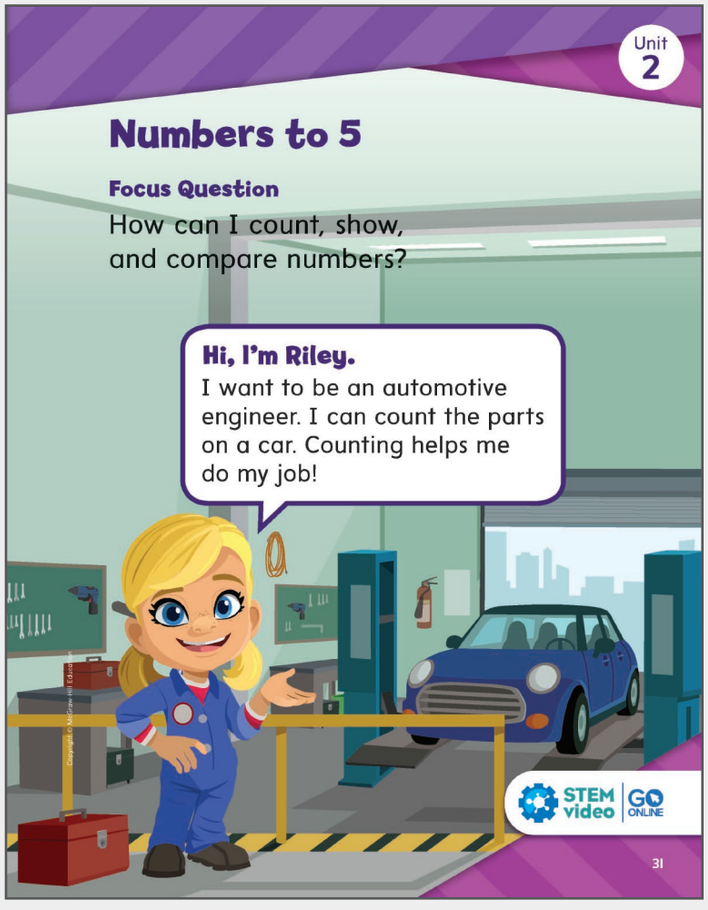
Focus Question

Introduce the Focus Question: *How can I count, show, and compare numbers?*

Ask students to think about what they know about counting and comparing numbers.

- How do you count a group of objects?
- How do you know if one group has more than another group?

Remind students that at the end of the unit, they will reflect back on what they learned in this unit.



Family Letter

Each letter presents an overview of the math in the unit and home activities to support student learning.

STEM in Action

Videos

Students can watch the two STEM videos.

STEM Career: Automotive Engineer

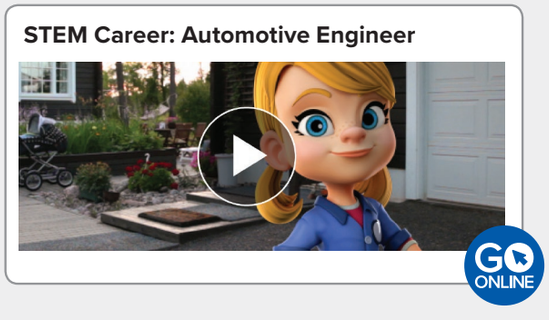
Riley Counts Car Parts

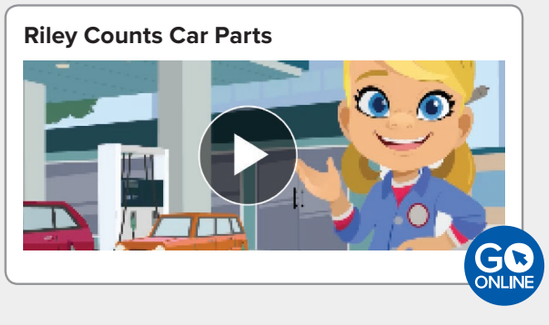
STEM Project Card

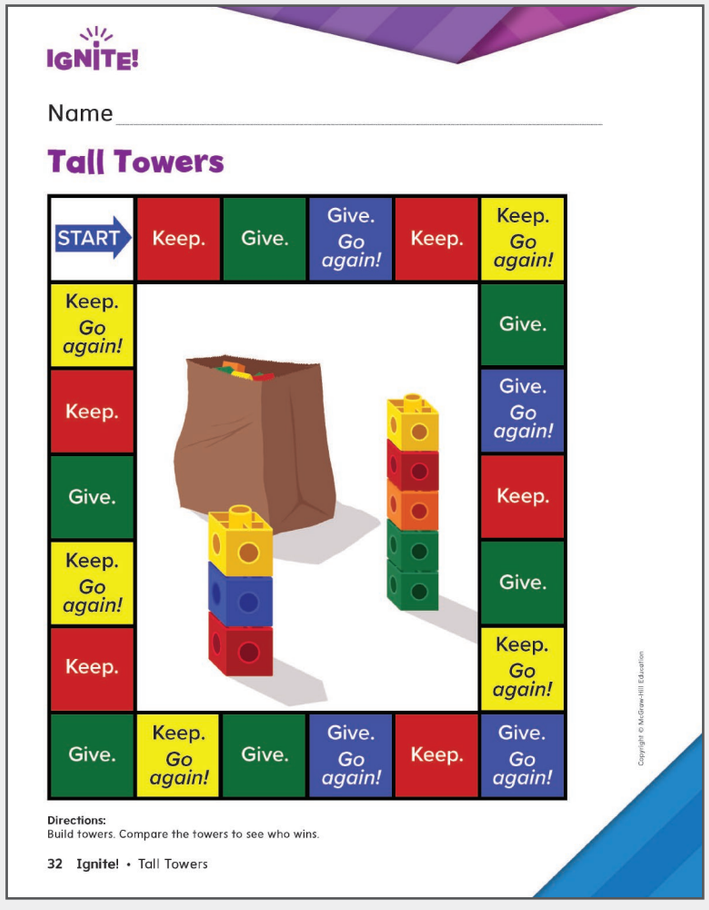
Students can complete the STEM Project Card during their workstation time.

STEM Adventures

Students can complete the STEM Adventures during their workstation time.






IGNITE!

Name _____

Tall Towers

START	Keep.	Give.	Give. *Go again!*	Keep.	Keep. *Go again!*
Keep. *Go again!*					Give.
Keep.					Give. *Go again!*
Give.					Keep.
Keep. *Go again!*					Give.
Keep.					Keep. *Go again!*
Give.	Keep. *Go again!*	Give.	Give. *Go again!*	Keep.	Give. *Go again!*

Directions:
Build towers. Compare the towers to see who wins.

32 **Ignite!** • Tall Towers

Ignite!

Tall Towers

Students informally use the concepts of one-to-one correspondence, counting, and more/less to determine the winner of a game.

Materials for each pair of students:
8 connecting cubes—2 cubes for each of the colors red, green, yellow, and purple. 2 game tokens (such as 2-color counters).

Objective: Build the tallest tower. The tallest tower can be no more than 5 cubes.

Setup: For each pair of students, place the 8 connecting cubes into an opaque bag and shake up the cubes. Each player receives a game token and places it on START.

Play: Players take turns drawing one cube at a time from the bag and moving to the next space on the board that shows that color. Each player uses the drawn cubes to build a tower based on the instructions given on the spaces landed upon. Players should have no more than 5 cubes. Players should return any additional cubes to the bag.

- If the space is marked **Keep**, the player keeps the cube to add to his or her tower.
- If the space is marked **Give**, the player must give the cube to the other player. The other player then uses the cube in his or her tower.
- If the space is also marked **Go again,** the player who lands on the space draws another cube from the bag and moves forward as before.

Play continues until there are no cubes left in the bag. As such, it is possible that the players may go around the board more than once. In the end, the player who has the taller tower wins. Play may end in a tie.

- How did you know who won?

Extension
Play again, but this time the player who ends up with the *shorter* tower wins.

Unit Resources At-A-Glance

Workstations

Reveal Math offers rich and varied resources that teachers can use to differentiate and enrich students' instructional experiences with the unit content. The table presents an overview of the resources available for the unit with recommendations for when to use.

	Activity	Description	Use After Lesson
Game Station	Game Station	Students examine numbers to 5.	
		• **Counting Race**	2-1
		• **Counting Puzzles**	2-2
		• **Counting Race**	2-3
		• **Counting Clip Cards**	2-4
		• **Wild Zero Showdown**	2-5
		• **Counting Clip Cards**	2-6
		• **Compare Concentration**	2-7
		• **Greater Than Showdown**	2-8
		• **Number Showdown**	2-9
Digital Station	Digital Game	**Up & Away** Students count to 5.	2-1
Application Station	**Have students complete at least one of the Use It! activities for this unit.**		
	STEM Project Card	**Movement of Cars** Students build car ramps and examine how different materials affect how the car moves.	2-4
	Connection Card	**Musical Chairs** Students play musical chairs, counting the number of students and chairs.	2-7
	Real World Card	**A Farm Maze** Students describe how to move in the maze to see all the animals.	2-4

Additional Resources

Use the resources below to provide additional support for this unit.

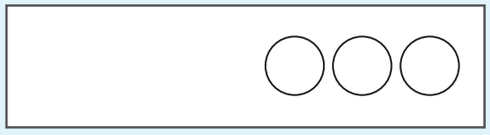
GO ONLINE

Vocabulary

Use the vocabulary cards to help students learn the vocabulary in this unit. Encourage students to write their own definitions of the key terms on the front side of the card.

Foldables

Use the unit foldables with Lessons 2-1 through 2-4.



Spiral Review

Students can complete the Spiral Review at any point during the unit as either a paper-and-pencil or digital activity.

Lesson	Standard
2-1	K.CC.B.4
2-2	K.CC.B.4
2-3	K.CC.B.4
2-4	K.CC.B.4
2-5	K.CC.A.3
2-6	K.CC.B.4
2-7	K.CC.C.6
2-8	K.CC.C.6
2-9	K.CC.C.6

LESSON **2-1**

Count 1, 2, and 3

Learning Targets

- I can count objects to 3.
- I can explain how to count objects to 3.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.B** Count to tell the number of objects.

◇ **K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.

◇ **K.CC.B.4.a** When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

Math Practices and Processes

MPP Model with mathematics.

Vocabulary

Math Terms	Academic Terms
one (1)	count
two (2)	explain
three (3)	

Materials

The materials may be for any part of the lesson.

- bags
- connecting cubes
- counters
- signs showing 1, 2, and 3 connecting cubes

Focus

Content Objective	Language Objectives	SEL Objective
• Students understand the relationship between numbers and quantities when using objects and illustrations to count 1, 2, and 3.	• Students articulate the relationship between numbers and objects in a group of 3 by counting to 3. • Support sense-making by participating in MLR8: Discussion Supports.	• Students identify personal traits that make them good students, peers, and math learners.

Coherence

Previous	Now	Next
• Students may have some experience with rote counting.	• Students count up to 3 objects by pairing each object with one number.	• Students count and represent numbers to 5 (Unit 2). • Students count up to 10 objects (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that counting tells how many objects are in a group of up to 3 objects.	• Students build proficiency with counting to 3. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students count objects from their classroom. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine
What Did You See? 5-7 min

Build Fluency Students build their counting skills as they determine the number of dots that are shown on a card.

These prompts encourage students to talk about their reasoning:

- How many dots were on the card? How do you know.
- How did you count the dots?

Purpose Students notice there are three different types of animals.

Notice and Wonder™

- What do you notice? What do you wonder?

Teaching Tip To help students begin to think about numbers and quantities, encourage them to represent each animal with a counter.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about how to talk about the groups of objects.

- What types of animals do you see?
- Can you put the rabbits in a group? The cats? The dog? What do those groups look like?
- What can you say about how many animals are in each group?
- How could you show how many animals are in each group?

Math is... Mindset

- How can you show that you have self-confidence?

SEL Self Awareness: Self-Confidence

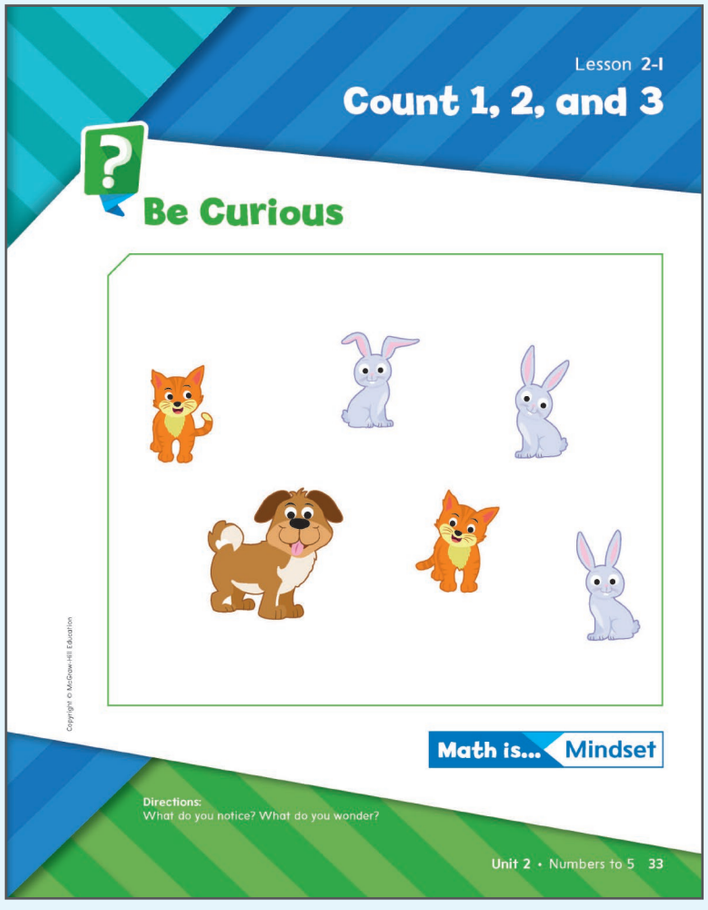
Throughout the Notice & Wonder routine, provide opportunities for students to feel confident in their math abilities as well as their abilities to be helpful peers and active members of the classroom community. Model and encourage giving positive feedback for kindness, good effort, or creative thinking. Remind students that some tasks are more challenging than others, and they can demonstrate self-confidence by speaking up and asking for help if they need it. Throughout their work with counting up to three objects in a group, continue to find other opportunities to allow students to offer positive feedback to their classmates.

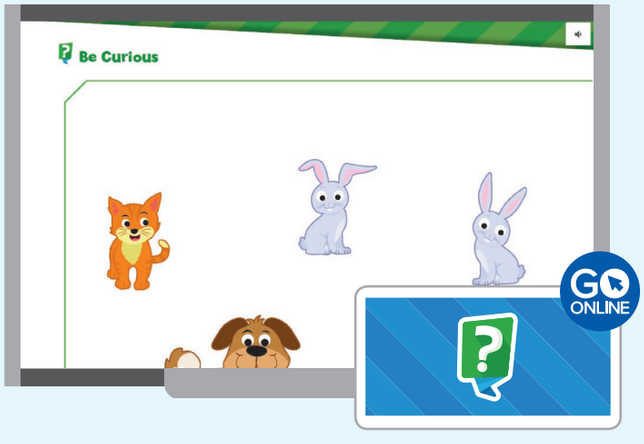
Transition to Explore & Develop

Ask questions that get students to think about how we can know how many animals there are in each group.

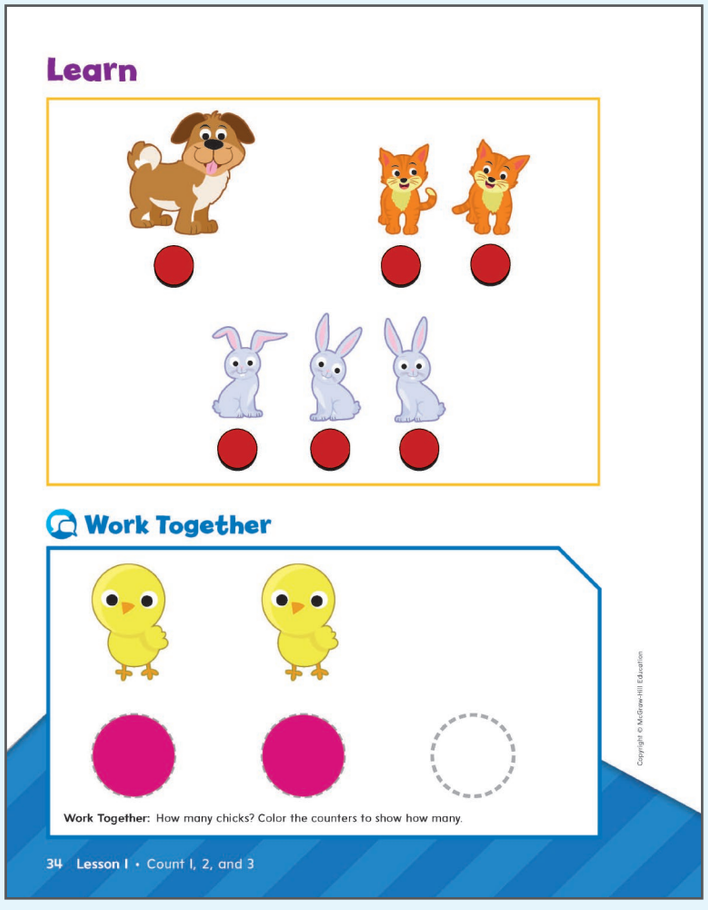
ETP Establish Goals to Focus Learning

- How can we know how many of each animal?





Explore & Develop 20 min



1 Pose the Problem

MLR Discussion Supports

Support the students by breaking the question into chunks. For example, *How many dogs does Maya have? Let's count*. Point to the dog and count to 1. Be sure the learners are pointing to the dog and counting to one. Continue in the same manner with the other pets.

Read the problem to students.

- Maya's family has these pets. How many of each pet does Maya's family have?

ETP Pose Purposeful Questions

- What could you do to find how many dogs? Cats? Rabbits?

2 Develop the Math

Choose the option that best meets your instructional goals.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- What does counting tell you?
- How can you tell someone how many things there are?

Key Takeaways

- Counting tells how many objects are in a group of up to 3 objects arranged in rows. Each object is paired with one number. The last number said represents the total number of objects in the group.
- Counting tells how many are in a group.
- When counting, each object is paired with one number.
- The last number said tells the total number of objects in the group.

Work Together

- How many birds? Color the counters to show how many.

Students color the counters to match the number of birds. Check that students match one bird to one counter.

Common Misconception Students may misunderstand that 1 bird represents 1 counter and think that all counters should be colored in, rather than just 2. Remind students to match 1 bird to 1 counter to show how many.

LOM Language of Math

Add the vocabulary cards *one, two,* and *three* to the word wall. Hold up 1, 2, or 3 objects. Ask students to count the group and then ask them to explain how they know. This is an opportunity for them to use math vocabulary, including terms such as *count, one, two,* and *three*.

CHOOSE YOUR OPTION

Activity-Based Exploration

Students explore how to count a group with up to 3 objects.

Materials: connecting cubes (3 per student); signs showing 1, 2, and 3 connecting cubes

Directions: Post each sign in a different area of the classroom. Provide each student with 3 connecting cubes. Tell each student to place successively 1, 2, 3 cubes on their desk or work mat. Each time say,

- Let's count the cubes. How many cubes?

Have the students choose 1, 2, or 3 cubes and hold them in their hand. Then have students complete one or both of the following activities:

Activity 1: Using the posted signs as a guide, have the students go to the area of the room with the sign that matches the number of cubes in their hands.

- Are you in the right group? How do you know?

Students can repeat the activity. Have them select a different number of cubes from 1 to 3.

Activity 2: Have students find a friend who has the same number of cubes.

- Do you and your partner have the same amount? How do you know?

ETP Support Productive Struggle

- How can you know how many cubes you have?
- What is something else you have 1 of?
- What is something else you have 2 or 3 of?

Math is... Modeling

- How can we use cubes to show how many we have?

Students consider how cubes can be used to help count.

Activity Debrief: Remind students that counting tells how many are in a group.

- How can you tell how many cubes you have?

Have students revisit the Pose the Problem question and discuss answers.

- How many of each pet does Maya's family have?

Guided Exploration

Students begin to understand that counting tells how many are in a group.

Tap the different pets to count. Guide students in matching each pet to 1 counter.

After counting each group of pets, ask students to look for items in the classroom to show that same number.

ETP Facilitate Meaningful Discourse

- How do you know how many dogs Maya has? Cats? Rabbits?
- How can counters be used to count the animals?
- When counting a group of animals, what does the last number said tell you?
- How did you know when you found 1 of something in the classroom? 2? 3?

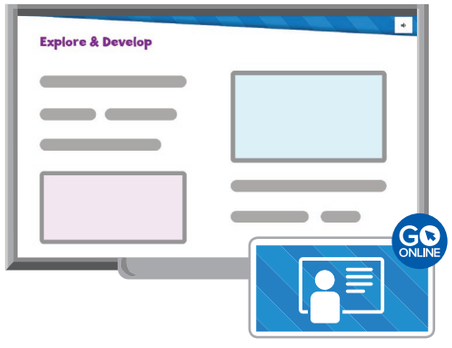
Math is... Modeling

- How can counters show the number of animals?

Students consider how counters can be used to help count.

Ask students to find 2 of something at their tables or desks. Have them turn to a partner and show that they have 2 items by counting aloud for their partner.

- How could you explain to a friend how to find 2 of something?



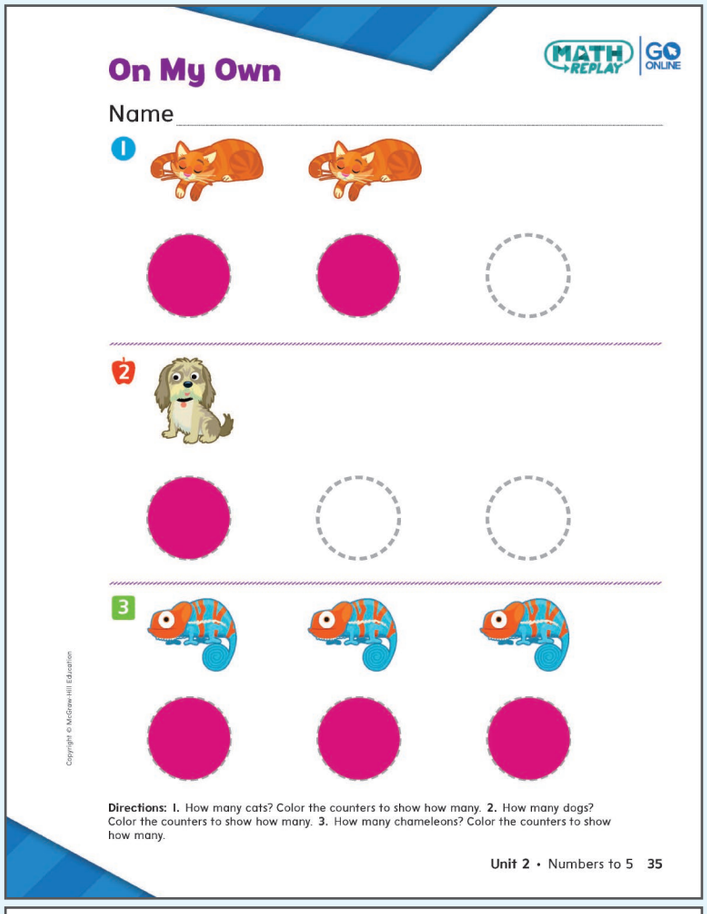
EL English Learner Scaffolds

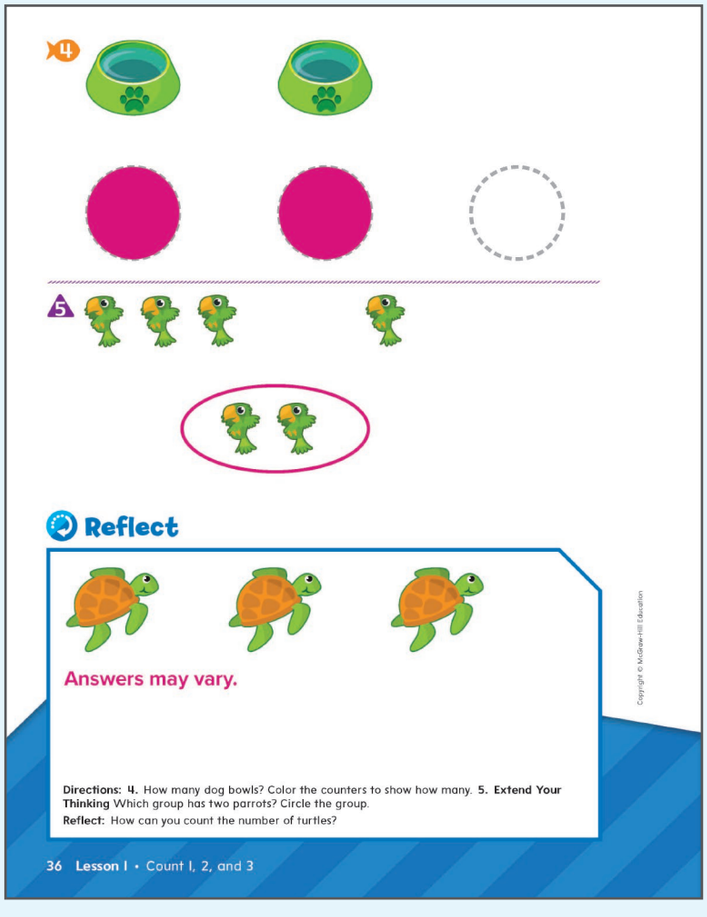
Entering/Emerging To support understanding of how to answer the questions, *How many do you have? How many does he/she have?* give 1-3 objects to various students. Point to the students and say, for example, *He has one. She has two. He has three.* To check comprehension, ask students to point to the correct people as you say, *He has one. She has two. He has three.*

Developing/Expanding To support with understanding of how to answer the questions, *How many do you have? How many does he/she have?* give 1-3 objects to various students. Point to the students and say, *He has one. She has two. He has three.* To check comprehension, ask students to answer the questions. Elicit a response with *have/has* and the correct number.

Bridging/Reaching Give students opportunities to explain how many objects people have. Point to students and ask, *How many pencils/books does he/she have?* Elicit full sentence responses with have/has.

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercise 1, ask students,

- How many cats? Color the counters to show how many.

For Exercise 2, ask students,

- How many dogs? Color the counters to show how many.

For Exercise 3, ask students,

- How many chameleons? Color the counters to show how many.

For Exercise 4, ask students,

- How many dog bowls? Color the counters to show how many.

For Exercise 5, ask students,

- Which group has 2 parrots? Circle the group.

Common Error: Exercises 1–4 Some students may count an object more than once. Help students develop one-to-one correspondence by having them touch each object as they say the number name.

Practice Item Analysis

Item	DOK	Rigor
1–4	2	Conceptual Understanding
5	3	Application

Reflect

Students complete the Reflect question.

- How can you count the number of turtles?

Ask students to share their reflections with their classmates.

Math is... Mindset

- How have you shown self-confidence?

Students reflect on how they practiced self-confidence.

Learning Targets

Ask students to reflect on the Learning Targets of the lesson.

- I can count objects to 3.
- I can explain how to count objects to 3.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

Exit Ticket Skill Tracker

Item	DOK	Skill	Standard
1	1	Count 1, 2, and 3	K.CC.B.4
2	1	Count 1, 2, and 3	K.CC.B.4

Data Use students' scores on the *Exit Ticket* to assign the differentiated resources available. When students complete the *Exit Ticket* in the digital workspace, their responses are auto-scored.

Exit Ticket Recommendations

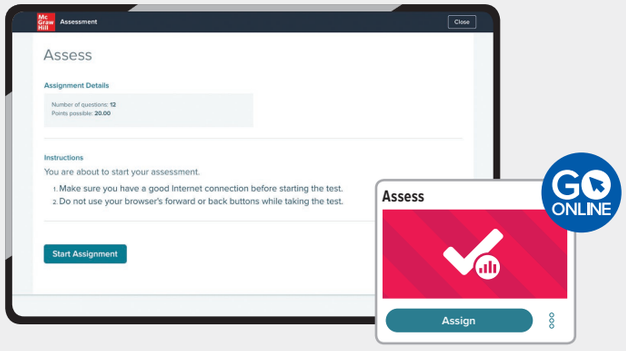
If students score	Then have students do
2 of 2	Additional Practice or any of the B or E activities
1 or 2	*Take Another Look* or any of the B activities
0 of 2	Small Group Intervention or any of the R activities

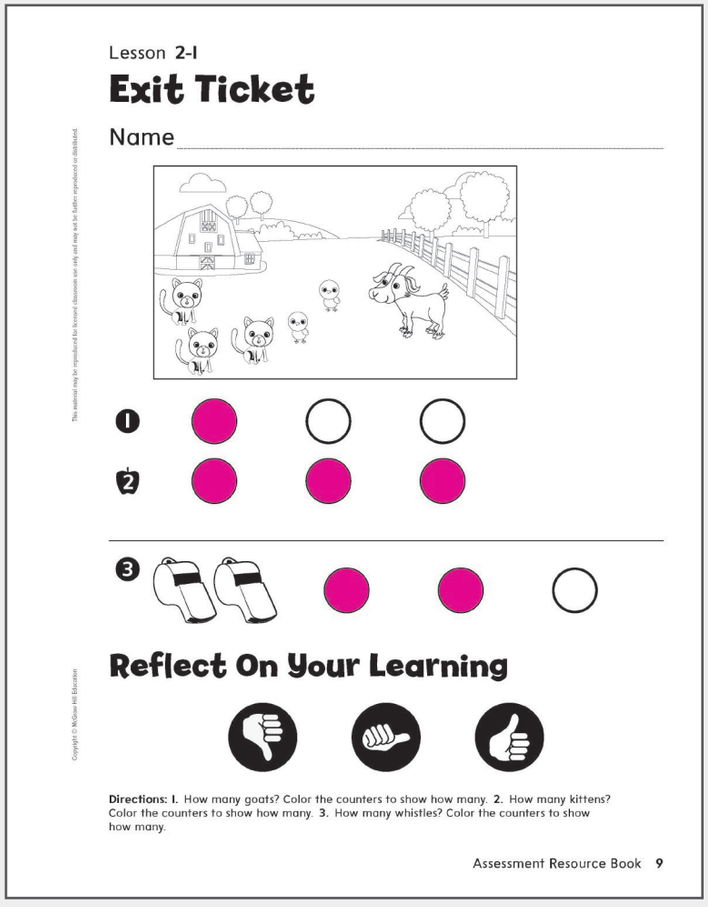
Key for Differentiation

R Reinforce Understanding

B Build Proficiency

E Extend Thinking





Lesson 2-1

Exit Ticket

Name _____

1

2

3

Reflect On Your Learning

Directions: 1. How many goats? Color the counters to show how many. **2.** How many kittens? Color the counters to show how many. **3.** How many whistles? Color the counters to show how many.

Assessment Resource Book 9

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

It's in the Bag

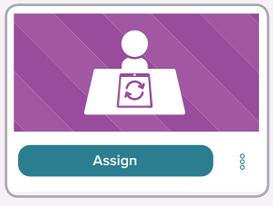
Work with students in groups of 3. One student secretly puts 1 to 2 connecting cubes in a bag. Another student guesses how many cubes are in the bag by shaking it or by feeling how heavy it is. A third student checks the guess by looking inside and counting the cubes. If students are not counting one to one, suggest touching and counting each cube. After several rounds, students can place up to 3 cubes in the bag.

GO ONLINE

Take Another Look Lesson

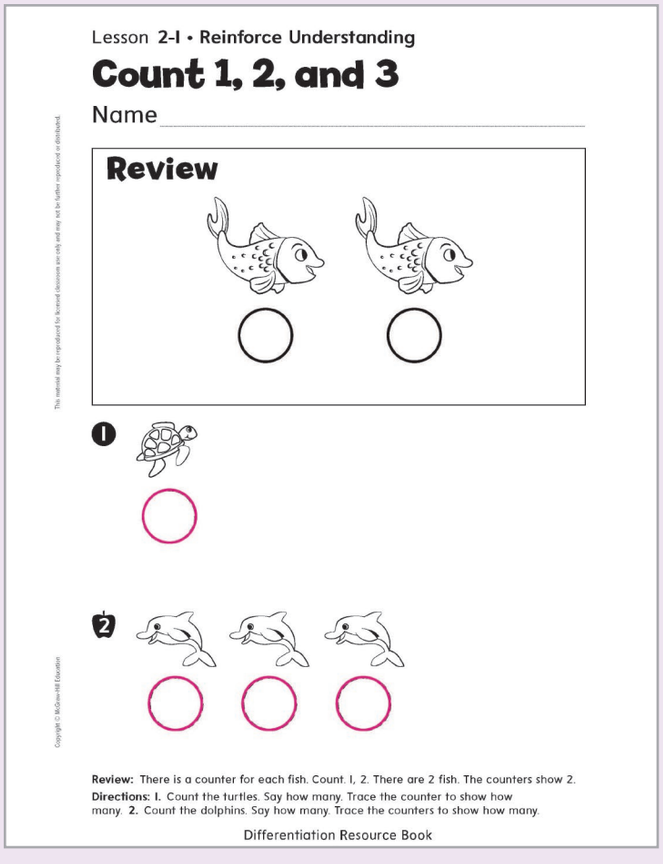
Assign the interactive lesson to reinforce targeted skills.

- Count to 3 with Dots as Objects



INDEPENDENT WORK

Differentiation Resource Book, p. 1



Lesson 2-1 • Reinforce Understanding

Count 1, 2, and 3

Name _____

Review

1

2

Review: There is a counter for each fish. Count. 1, 2. There are 2 fish. The counters show 2.
Directions: 1. Count the turtles. Say how many. Trace the counter to show how many. 2. Count the dolphins. Say how many. Trace the counters to show how many.

Differentiation Resource Book

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

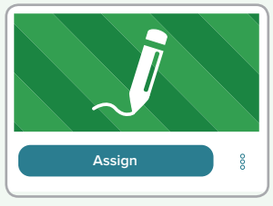
Counting Race

Students practice counting up to 3 objects.

GO ONLINE

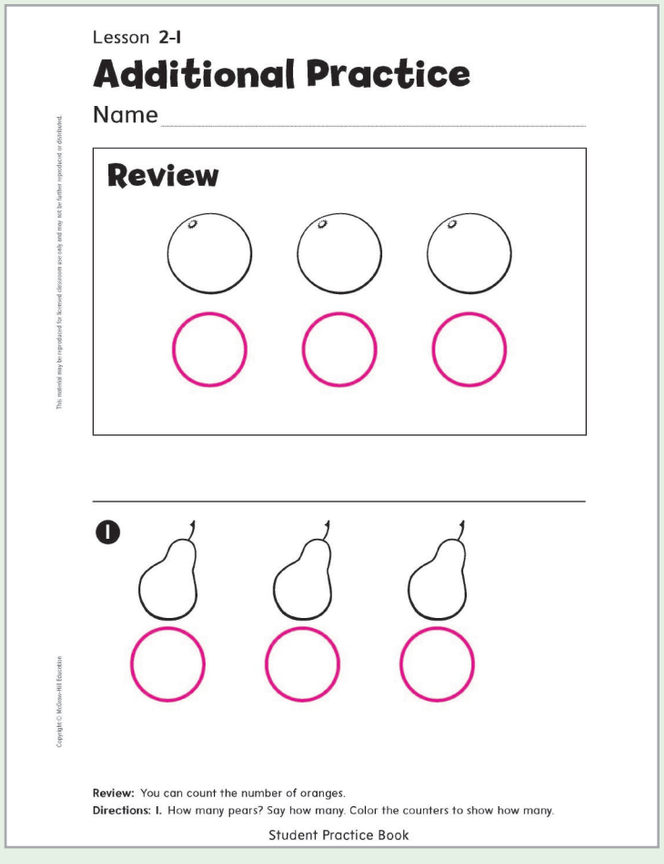
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Student Practice Book, pp. 1–2



Lesson 2-1

Additional Practice

Name _____

Review

1

Review: You can count the number of oranges.
Directions: 1. How many pears? Say how many. Color the counters to show how many.

Student Practice Book

E Extend Thinking

WORKSTATIONS

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

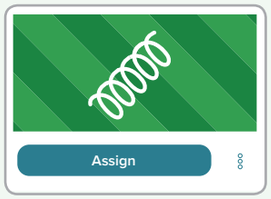
Use It! Application Station

A Farm Maze Students describe how to move in the maze to see all the animals. *The content of this card has concepts covered later in Lesson 2-4. You may want to assign this card to students ready to explore content covered later in this unit.*

GO ONLINE

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

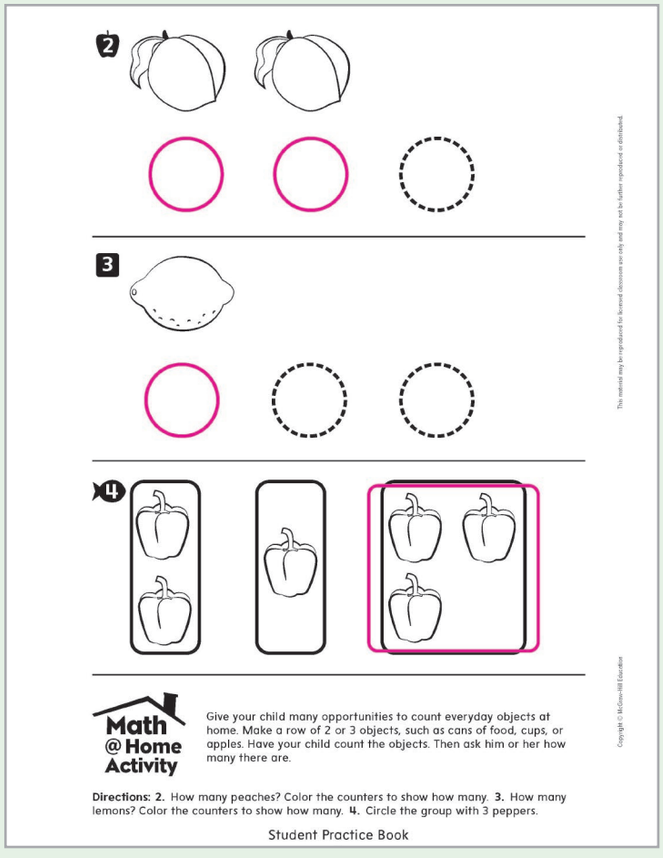


STEM Adventure

Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 1–2



2

3

4

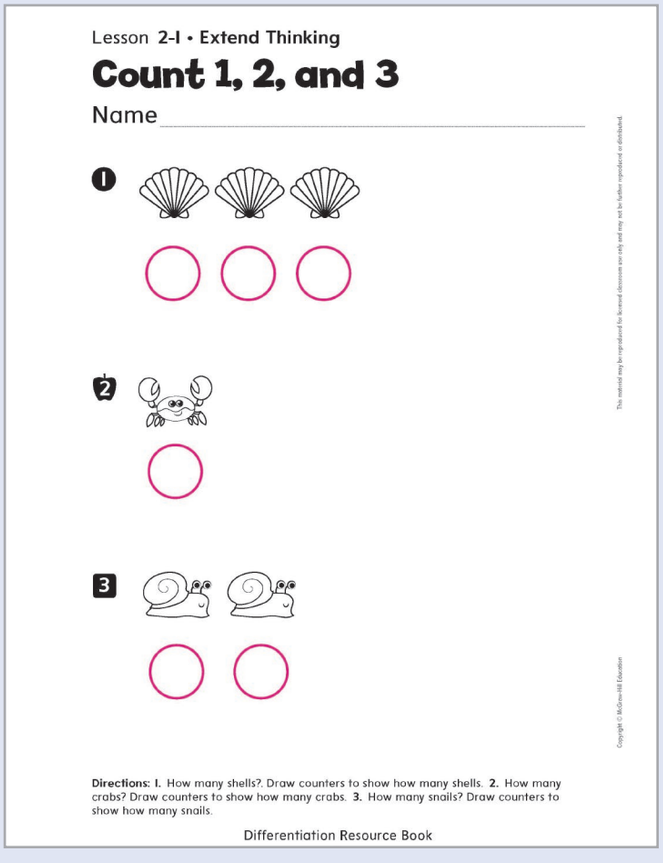
Math @ Home Activity

Give your child many opportunities to count everyday objects at home. Make a row of 2 or 3 objects, such as cans of food, cups, or apples. Have your child count the objects. Then ask him or her how many there are.

Directions: 2. How many peaches? Color the counters to show how many. **3.** How many lemons? Color the counters to show how many. **4.** Circle the group with 3 peppers.

Student Practice Book

Differentiation Resource Book, p. 2



Lesson 2-1 • Extend Thinking

Count 1, 2, and 3

Name _____

1

2

3

Directions: 1. How many shells? Draw counters to show how many shells. **2.** How many crabs? Draw counters to show how many crabs. **3.** How many snails? Draw counters to show how many snails.

Differentiation Resource Book

LESSON **2-2**

Represent 1, 2, and 3

Learning Targets

- I can show numbers 1, 2, and 3.
- I can explain how to show numbers 1, 2, and 3.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.B** Count to tell the number of objects.

◇ **K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.

◇ **K.CC.B.4.b** Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.

Math Practices and Processes

MPP Attend to precision.

Vocabulary

Math Terms	Academic Terms
one (1)	model
two (2)	order
three (3)	

Materials

The materials may be for any part of the lesson.

- connecting cubes
- counters
- 3-section spinner

Focus

Content Objective	Language Objective	SEL Objective
• Students count groups of objects to 3, regardless of their arrangement. • Students recognize the numerals 1, 2, and 3.	• Students articulate numerals 1, 2 and 3 by matching them to sets of 1, 2, and 3 objects. • Support sense-making and optimizing output by participating in MLR5: Co-Craft Questions.	• Students actively listen as peers describe how they approached a mathematical task.

Coherence

Previous	Now	Next
• Students counted objects to 3 (Unit 2).	• Students count objects up to 3, and represent the number of objects counted.	• Students represent the numbers 4 and 5 (Unit 2). • Students represent the numbers 6 and 7 (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students count objects in a scattered arrangement up to 3 objects.	• Students understand how to show the number of objects in a group up to 3 with manipulatives and numerals.	• Students represent numbers 1, 2, and 3 with manipulatives and a numeral. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine

What Did You See? 5-7 min

Build Fluency Students build their counting skills as they determine the number of dots that are shown on a card.

These prompts encourage students to talk about their reasoning:

- How many dots were on the card? Explain how you know.
- How did you count the dots?

Purpose Students will notice the number of different things in the image.

Notice and Wonder™

- What do you notice? What do you wonder?

Teaching Tip Draw students' attention to the group of swans and ask them how many swans they see in the picture. Repeat with different groups of objects to encourage students to begin noticing the number of objects in each group.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about how to describe the groups of animals.

- What groups do you see in the picture?
- How can you use counting to describe the groups?

Math is... Mindset

- How can you be a good listener?

SEL Relationship Skills: Effective Communication

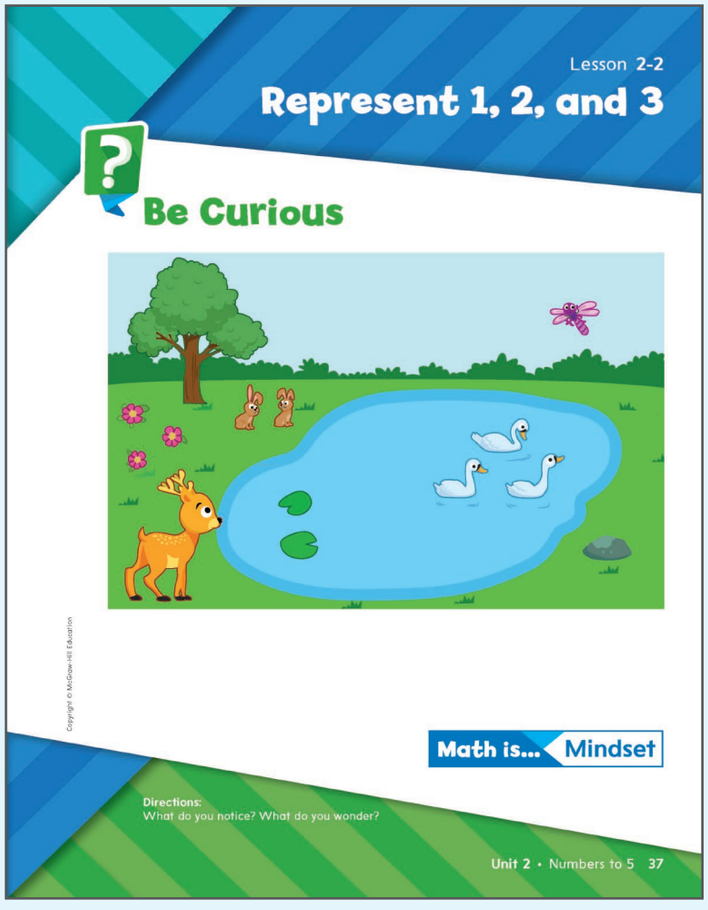
As students engage in collaborative discourse around the Notice & Wonder routine, encourage them to actively and respectfully listen to one another. Invite students to think about and share what active listening looks and sounds like. As students discuss what they noticed and wondered, encourage classmates to listen as well as provide thoughtful feedback. Capitalize on opportunities to also model these behaviors when students are speaking.

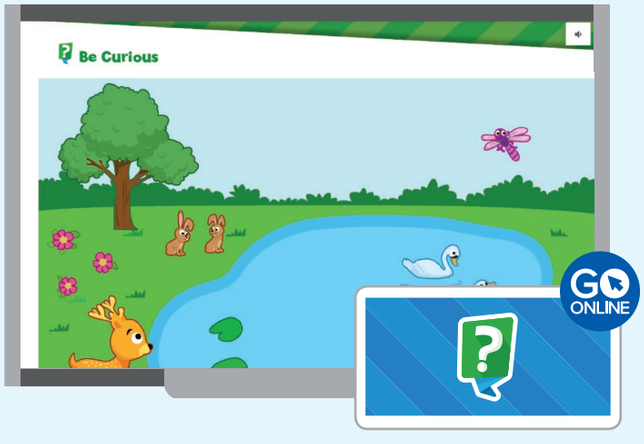
Transition to Explore & Develop

Ask questions that get students to think about how to represent the number of animals in each group.

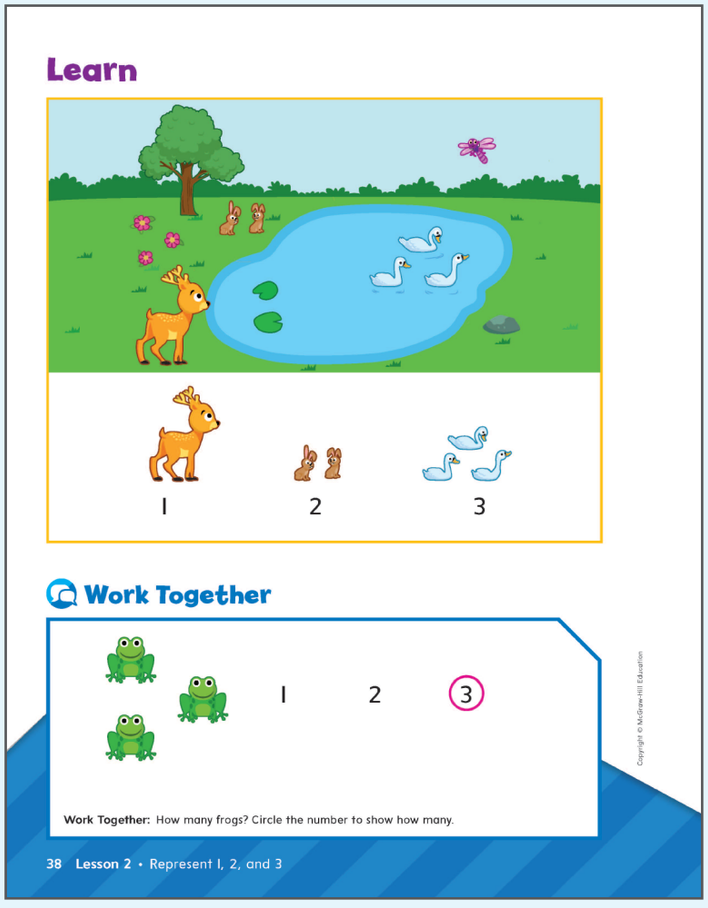
ETP Establish Goals to Focus Learning

- How can we show how many there are of each animal?





Explore & Develop 20 min



1 Pose the Problem

Read the problem to students.

- How can we talk about what we see in this picture?

ETP Pose Purposeful Questions

- What can you say about the groups of animals?

2 Develop the Math

Choose the option that best meets your instructional goals.

MLR Co-Craft Questions

Give each group of students a set of numeral cards (1, 2, 3). Each student draws between 1–3 objects (animals, etc.) on their own paper. Students share their picture with their groupmates. Students ask *How many _____ are there?* The groupmates count and solve the problem together by pointing to the correct numeral card.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How could you help a friend count a group of objects?
- How can you show how many objects are in a group?

Key Takeaways

- Counting tells how many are in a group of up to 3 objects, regardless of arrangement or the order in which they were counted.
- A numeral represents the number of objects counted.
- You can count a group no matter how the objects are arranged.
- A number shows how many are in a group.

Work Together

- How many frogs? Circle the number to show how many.

Students circle the number that represents the number of frogs. Check that students correctly count the number of frogs, and then identify the number 3.

Common Misconception Students may struggle to see the connection between different arrangements of the same number of objects. Have students count, move the objects, and count again to help them understand that the count does not change.

LOM Language of Math

In this lesson, students are introduced to numerals, which are the symbols that represent numbers, e.g., 1, 2, and 3. Show each of the numerals, and ask students to show that many objects.

CHOOSE YOUR OPTION

Activity-Based Exploration

Students explore how to count and represent a group of up to 3 objects with a number. Students also explore how to count objects in different arrangements.

Materials: connecting cubes (3 per student)

Directions: Show students 1 connecting cube. How many? How do you know? Have students use their connecting cube to show 1. Then have students move their cube to a different place on their desk. How many now? How do you know?

Write the numeral 1. Explain that it can be used to represent 1 object.

Repeat the activity with 2 and 3 objects. Encourage students to move their groups of cubes into different arrangements and ask them to identify how many. Discuss that the number of objects does not change regardless of how they are arranged.

Take students on a walk through the school to look for numbers 1, 2, and 3 in different places. Before the walk, ask students to predict where they will see different numbers.

ETP Support Productive Struggle

- What number do you see?
- What does the number tell us?
- Where else have you seen that number?

After the walk, have students share their discoveries. Record their responses next to each numeral on the board or chart paper. Encourage students to continue looking for numbers throughout the school day and at home. Continue to add their findings to the class list.

Math is... Precision

- How can you show the number of objects you count?

Students think about how specific numbers represent groups of objects.

Activity Debrief: Show students a number and have them make a group with that many objects. Repeat with numbers 1–3.

Have students revisit the Pose the Problem question and discuss answers.

- How can we talk about what we see in the picture with the animals?

Guided Exploration

Students begin to count objects in different arrangements. They show the number of objects with a model and a numeral.

Direct students to the pond scene and count the deer. Guide students in showing 1 with 1 counter and the number 1. Go on to count the rabbits and the swans, showing the amount with counters and numbers.

ETP Facilitate Meaningful Discourse

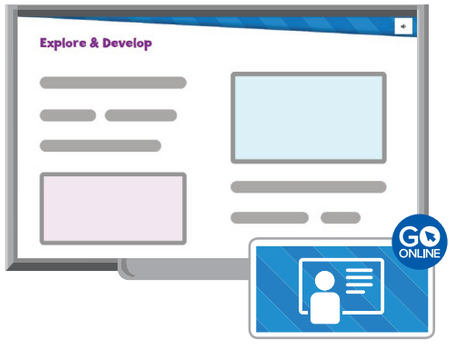
- How can you count a group of objects?
- Does the order matter when counting objects? Why?
- How can you model how many objects are in a group?
- **Think About It:** What does the number 3 tell us about the group of swans?

Ask students to work with a partner. One student says a number, 1–3, and the other student shows that number with objects from their desk or table.

Math is... Precision

- How can you show the number of objects you count?

Students think about how specific numbers represent groups of objects.



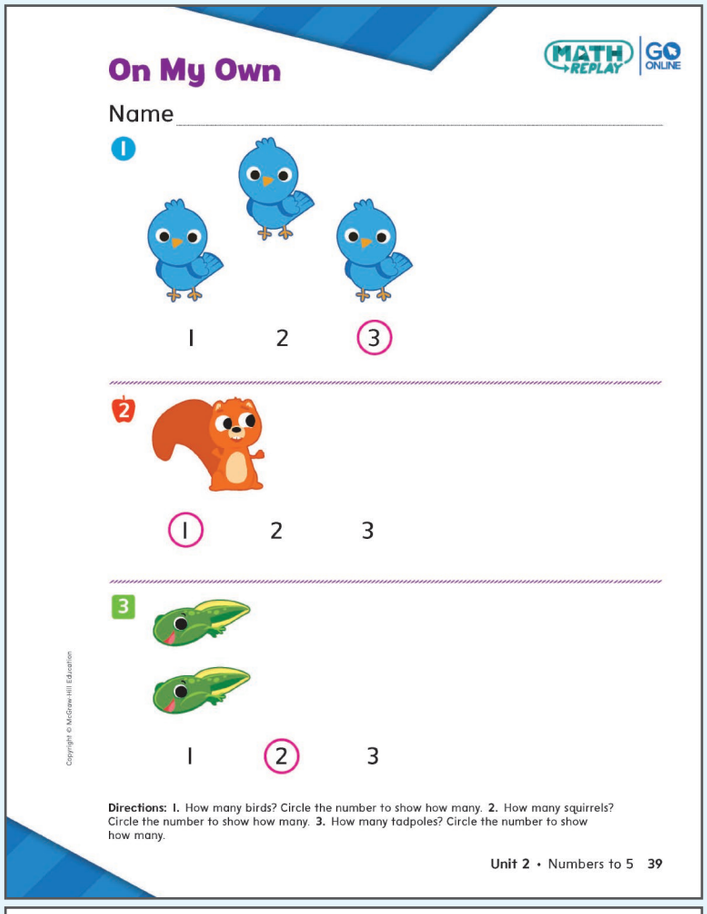
EL English Learner Scaffolds

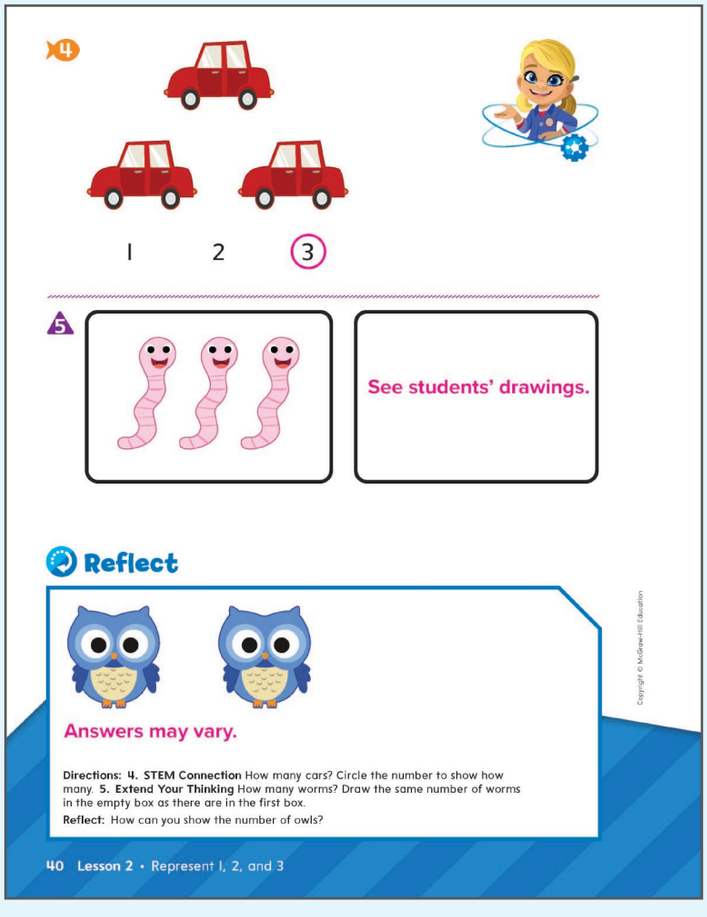
Entering/Emerging To support understanding of the question, *What does this number tell us?* write the numbers 1–3 and gather 3 manipulatives. Point to each number and say, *This number tells us there is 1/2/3.* To check comprehension, give each student 3 manipulatives. Point to each number and ask, *What does this number tell us?* Elicit that they hold up the correct number of manipulatives.

Developing/Expanding To support understanding of the question, *What does this number tell us?* write the numbers 1–3 and gather 3 manipulatives. Point to each number and say, *This number tells us there is 1/2/3.* To check comprehension, give each student 3 manipulatives. Point to each number and ask, *What does this number tell us?* Elicit students to give responses such as, *There are 2.*

Bridging/Reaching Give students opportunities to answer the question, *What does this number tell us?* Point to numbers and ask the question. Expect students to answer with a full sentence such as, *This number tells us there is two.*

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercise 1, ask students,

- How many birds? Circle the number to show how many.

For Exercise 2, ask students,

- How many are squirrels? Circle the number to show how many.

For Exercise 3, ask students,

- How many are tadpoles? Circle the number to show how many.

For Exercise 4, ask students,

- How many cars? Circle the number to show how many.

For Exercise 5, ask students,

- How many worms? Draw the same number of worms in the empty box as there are in the first box.

Common Error: Exercises 1–5 Students may struggle to say one number name with one object. Remind students to say the number name as they touch each object.

Practice Item Analysis

Item	DOK	Rigor
1–4	2	Conceptual Understanding
5	3	Application

Reflect

Students complete the Reflect question.

- How can you show the number of owls?

Ask students to share their reflections with their classmates.

Math is... Mindset

- How have you been a good listener?

Students reflect on how they developed stronger relationship skills.

Learning Targets

Ask students to reflect on the Learning Targets of the lesson.

- I can show numbers 1, 2, and 3.
- I can explain how to show numbers 1, 2, and 3.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

Exit Ticket Skill Tracker

Item	DOK	Skill	Standard
1	1	Represent 1, 2, and 3	K.CC.B.5
2	1	Represent 1, 2, and 3	K.CC.B.5

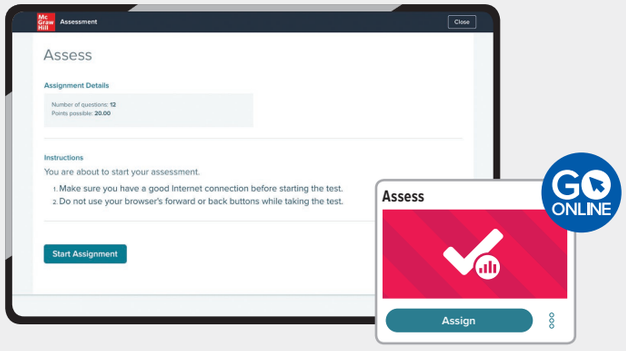
Data Use students' scores on the *Exit Ticket* to assign the differentiated resources available. When students complete the *Exit Ticket* in the digital workspace, their responses are auto-scored.

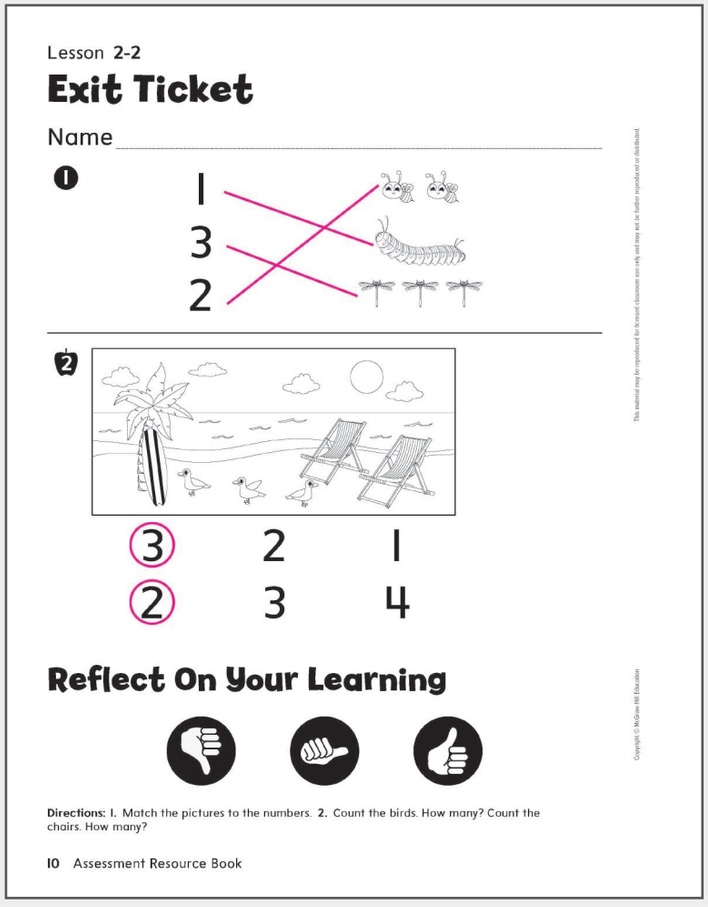
Exit Ticket Recommendations

If students score	Then have students do
2 of 2	Additional Practice or any of the B or E activities
1 or 2	*Take Another Look* or any of the B activities
0 of 2	Small Group Intervention or any of the R activities

Key for Differentiation

R Reinforce Understanding
B Build Proficiency
E Extend Thinking





Lesson 2-2

Exit Ticket

Name _____

1

1
3
2

2

3 2 1
2 3 4

Reflect On Your Learning

Directions: 1. Match the pictures to the numbers. 2. Count the birds. How many? Count the chairs. How many?

10 Assessment Resource Book

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Spin to Win

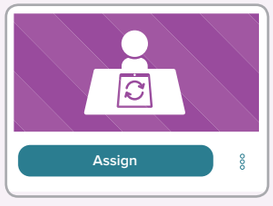
Work with groups of 3 students. Provide a 3-section spinner with labels 1, 2, and 3, and counters arranged in groups of 1, 2, and 3. The first student spins. The second student points to the group that shows the number the spinner landed on. If students are just pointing to a group of counters without counting, suggest they touch each counter while counting. Students take turns in each role.

GO ONLINE

Take Another Look Lesson

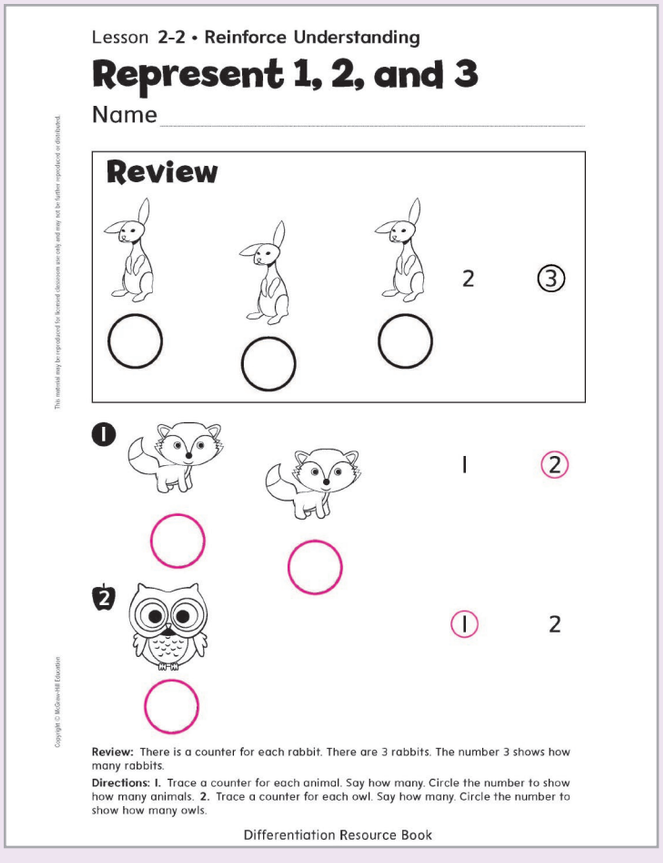
Assign the interactive lesson to reinforce targeted skills.

- Recognize Numerals 1, 2, and 3



INDEPENDENT WORK

Differentiation Resource Book, p. 3



Lesson 2-2 • Reinforce Understanding

Represent 1, 2, and 3

Name _____

Review

2 ③

1 1 ②

2 ① 2

Review: There is a counter for each rabbit. There are 3 rabbits. The number 3 shows how many rabbits.

Directions: 1. Trace a counter for each animal. Say how many. Circle the number to show how many animals. **2.** Trace a counter for each owl. Say how many. Circle the number to show how many owls.

Differentiation Resource Book

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

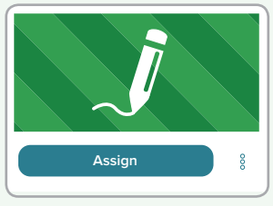
Counting Puzzles

Students assemble counting puzzles with the numbers 1, 2, and 3.

GO ONLINE

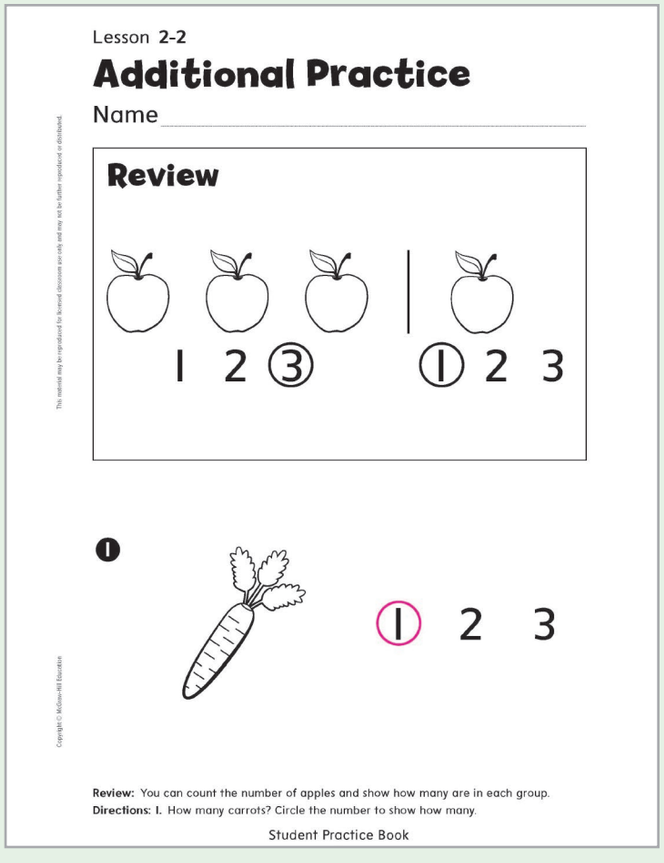
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Student Practice Book, pp. 3–4



Lesson 2-2

Additional Practice

Name _____

Review

1 2 ③ ① 2 3

1 ① 2 3

Review: You can count the number of apples and show how many are in each group.

Directions: 1. How many carrots? Circle the number to show how many.

Student Practice Book

E Extend Thinking

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

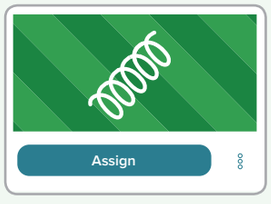
Use It! Application Station

Movement of Cars Students build car ramps and examine how different materials affect how the car moves. *The content of this card has concepts covered later in Lesson 2-4. You may want to assign this card to students ready to explore content covered later in this unit.*

WORKSTATIONS

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

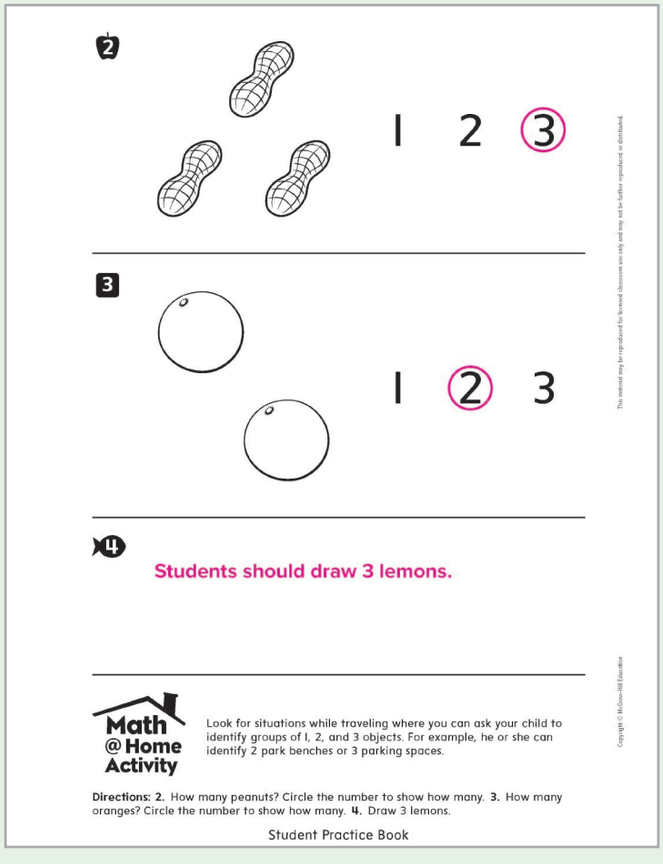


STEM Adventure

Assign a digital simulation to apply skills and extend thinking.

GO ONLINE

Student Practice Book, pp. 3–4



2

1 2 3

3

1 2 3

4

Students should draw 3 lemons.

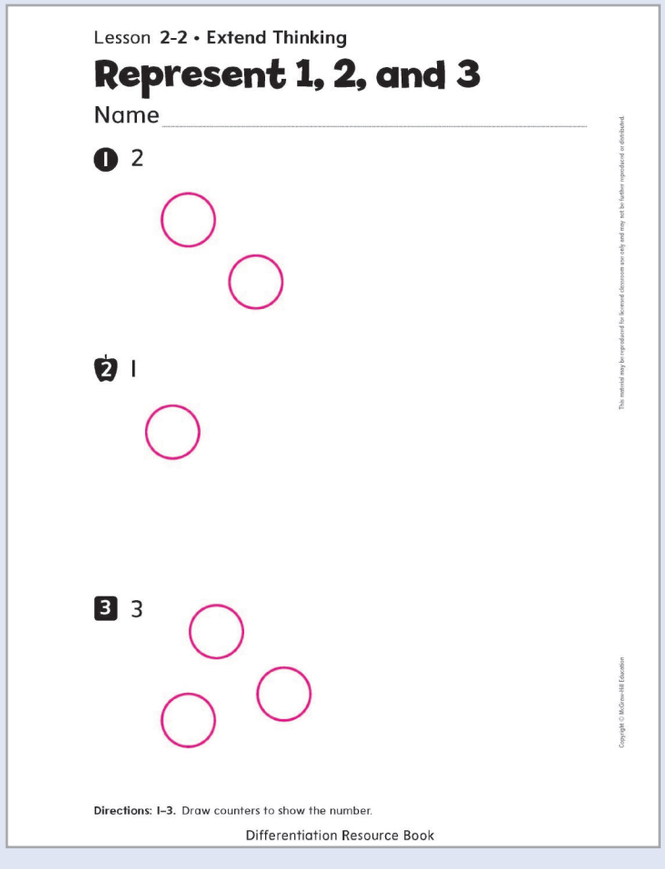
Math @ Home Activity

Look for situations while traveling where you can ask your child to identify groups of 1, 2, and 3 objects. For example, he or she can identify 2 park benches or 3 parking spaces.

Directions: 2. How many peanuts? Circle the number to show how many. **3.** How many oranges? Circle the number to show how many. **4.** Draw 3 lemons.

Student Practice Book

Differentiation Resource Book, p. 4



Lesson **2-2 • Extend Thinking**

Represent 1, 2, and 3

Name _____

1 2

2 1

3 3

Directions: 1–3. Draw counters to show the number.

Differentiation Resource Book

INDEPENDENT WORK

LESSON **2-3**

Count 4 and 5

Learning Targets

- I can count objects to 5.
- I can explain how to count objects to 5.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.B** Count to tell the number of objects.

◇ **K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.

◇ **K.CC.B.4.a** When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

Math Practices and Processes

MPP Model with mathematics.

Vocabulary

Math Terms	Academic Terms
four (4)	count
five (5)	explain

Materials

The materials may be for any part of the lesson.

- connecting cubes
- counters
- signs showing cubes

Focus

Content Objective	Language Objective	SEL Objective
• Students understand the relationship between numbers and quantities when using objects and illustrations to count 4 and 5.	• Students articulate the relationship between numbers and objects in a group of 5 by counting to 5. • Support cultivating conversation by participating in MLR8: Discussion Supports.	• Students understand and explain a problem-solving process, including how a correct solution was found.

Coherence

Previous	Now	Next
• Students counted objects to 3 (Unit 2).	• Students count objects to 5 by pairing each object with one number.	• Students represent the numbers 4 and 5 (Unit 2). • Students count up to 10 objects (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that counting tells how many are in a group of up to 3 objects.	• Students work on building proficiency with counting to 5. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students count objects from their classroom. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine
What Did You See? 5–7 min

Build Fluency Students build their counting skills as they determine the number of dots that are shown on a card.

These prompts encourage students to talk about their reasoning:

- How many dots were on the card? Explain how you know.
- How did you count the dots?

Purpose Students notice that there are two different types of animals.

Notice & Wonder™

- What do you notice? What do you wonder?

Teaching Tip To help students begin to think about numbers and quantities, encourage them to represent each animal with a counter.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about the possibility of describing the groups by counting each group.

- How are the animals the same?
- How are the animals different?
- What can you say about the group of racoons?
- What can you say about the group of owls?

Math is... Mindset

- How can you make sense of a problem?

SEL Self-Regulation: Metacognition

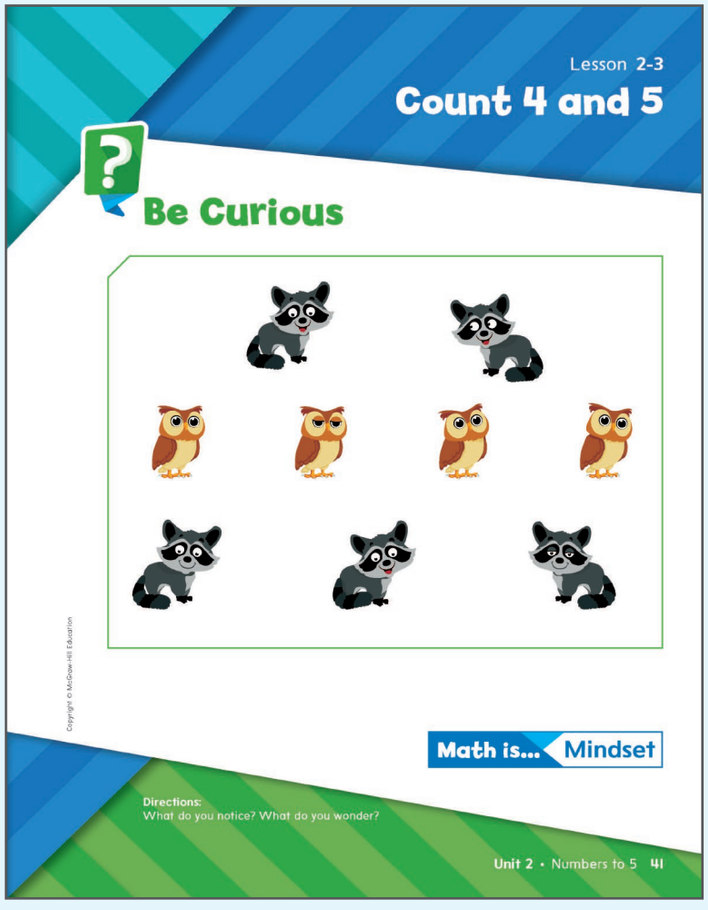
After students work through the Notice & Wonder routine, have them share their reasoning process with a partner. Encourage students to think about how they made sense of the image. As students move on to work with counting groups with up to five objects, encourage them to reflect on their work by asking themselves what was challenging and why.

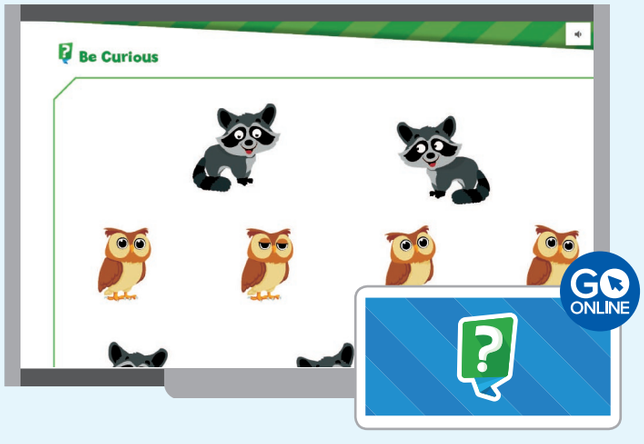
Transition to Explore & Develop

Ask questions that get students to think about how they can show how many animals are in each group.

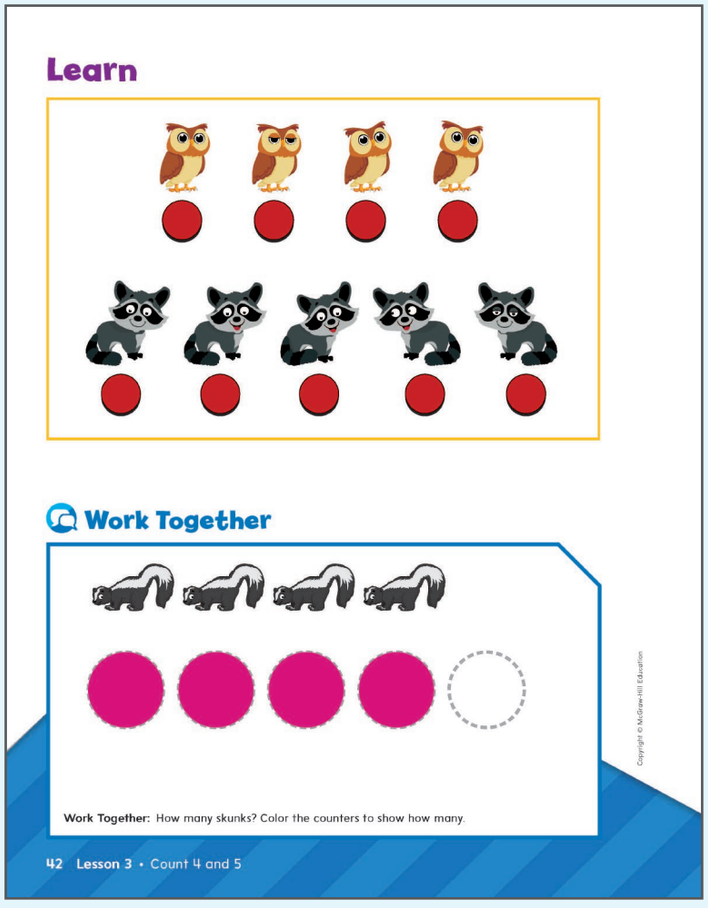
ETP Establish Goals to Focus Learning

- How can we know how many there are of each kind of animal?
- How can we show how many?





Explore & Develop 20 min



1 Pose the Problem

MLR Discussion Supports

Chunk the question. Ask, *What animals do we see?* Elicit owls and racoons. Say, *How many owls are there?* Elicit counting to 4. Say, *There are 4 owls*. Continue in the same manner with raccoons. Close by drawing lines from the dots to the animals. Count as you draw.

Read the problem to students.

- Ralph is looking at a book with owls and raccoons. How many owls and raccoons does he see?

ETP Pose Purposeful Questions

- What could you do to count the number of each animal?

2 Develop the Math

Chose the option that best meets your instructional goals.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How can you tell how many objects are in a group?
- How can you tell a friend how to count?

Key Takeaways

- Counting tells how many are in a group of up to 5 objects arranged in rows. Each object is paired with one number. The last number said represents the total number of objects in the group.
- Counting tells how many are in a group.
- When counting, each object is paired with one number.
- The last number said tells the total number of objects in the group.

Work Together

- How many skunks? Color the counters to show how many.

Students color in the counters to match the number of skunks. Check that students match one skunk to one counter.

Common Misconception: Students may think that the last object counted represents the quantity of the group. For example, after counting a group of 5 objects, a student may *show 5* by picking up only the last object. To develop understanding, gather all the items after counting and say, *This is 5.*

LOM Language of Math

Add the vocabulary cards *four* and *five* to the word wall. Hold up 4 or 5 objects. Ask students to count the group and then ask them to explain how they know.

CHOOSE YOUR OPTION

Activity-Based Exploration

Students explore how to count a group with up to 5 objects.

Materials: connecting cubes (5 per student), signs showing 4 and 5 connecting cubes

Directions: Post each sign in a different area of the classroom. Tell each student to place successively 4 and then 5 cubes on their desk or work mat. Each time say,

- Let's count the cubes. How many cubes?

Have the students choose 4 or 5 cubes and hold them in their hand. Then have students complete one or both of the following activities:

Activity 1: Using the posted signs as a guide, have the students go to the area of the room with the sign that matches the number of cubes in their hands.

- Are you in the right group? How do you know?

Give students the opportunity to repeat the activity with different numbers of connecting cubes.

Activity 2: Have students find a friend who has the same number of cubes.

- Do you and your partner have the same amount? How do you know?

ETP Support Productive Struggle

- How can you know how many cubes you have?
- What is something else you have 4 of?
- What is something else you have 5 of?

Math is... Modeling

- How can we use cubes to show how many we have?

Students consider how cubes can be used to help count.

Activity Debrief: Remind students that counting tells how many are in a group.

- How can you tell how many cubes you have?

Have students revisit the Pose the Problem question and discuss answers.

- Ralph is looking at a book with owls and raccoons. How many owls and raccoons does he see?

Guided Exploration

Students count to find how many.

First, count the owls by tapping each one. Then, show 4 counters. Ask students to look for 4 of something in the classroom. Discuss the objects that students found.

Count the raccoons and show 5 using counters. Ask students to look for 5 of something in the classroom, and discuss their findings.

ETP Facilitate Meaningful Discourse

- How did you find how many owls?
- What do the counters show?
- How did you know you found 4 objects?
- What can you say about the number of raccoons?
- How do the counters help to count the number of raccoons?
- How did you find 5 objects in the classroom?

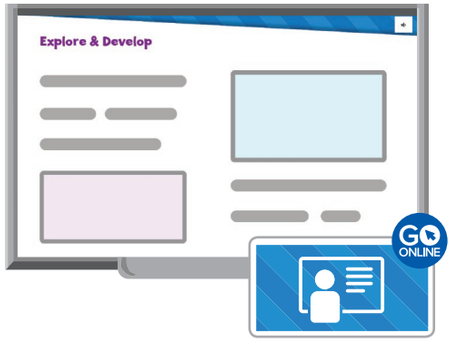
Have students work with a partner to find 4 or 5 of something in the classroom. Ask students to share as time allows.

- How can you tell how many items you found?

Math is... Modeling

- How can counters show the number of animals?

Students consider how counters can be used to help count.



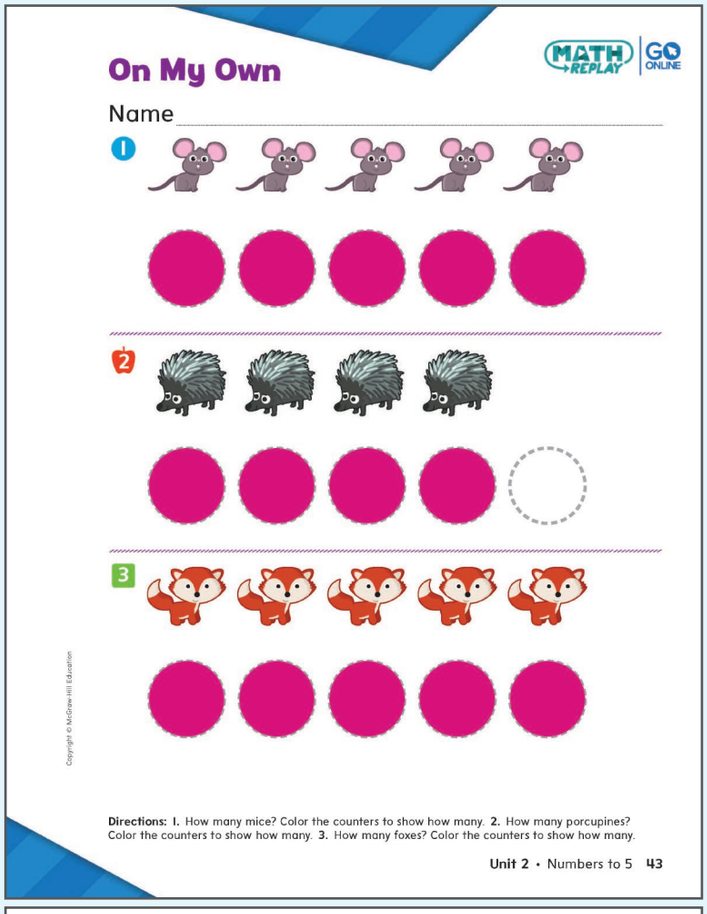
EL English Learner Scaffolds

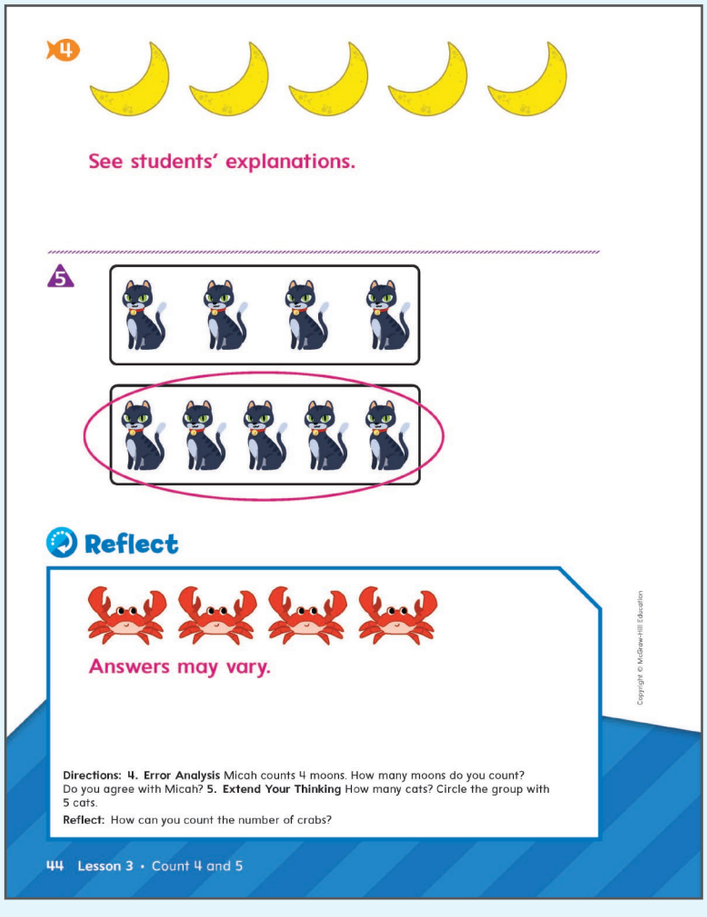
Entering/Emerging Support students with understanding the verb *show*. Gather 5 pencils and 5 counters. Place 1 pencil with 1 counter; 2 pencils with 2 counters, and so on. To check comprehension, hold up 1–5 pencils and ask, *How many counters show the number of pencils?* Elicit the number to answer the question.

Developing/Expanding Support students with understanding the verb *show*. Gather 5 pencils and 5 counters. Place 1 pencil with 1 counter; 2 pencils with 2 counters, and so on. To check comprehension, hold up 1–5 pencils and ask, *How many counters show the number of pencils?* Elicit a response using the word show.

Bridging/Reaching Give students opportunities to answer the question, *How many counters show the number of (objects)?* Point to 1–5 classroom objects (books, pencils, chairs). Ask the question and elicit a full sentence response using the verb *show*, such as, *4 counters show there are 4 books*.

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercise 1, ask students,

- How many mice? Color the counters to show how many.

For Exercise 2, ask students,

- How many porcupines? Color the counters to show how many.

For Exercise 3, ask students,

- How many foxes? Color the counters to show how many.

For Exercise 4, ask students,

- Micah counts 4 moons. How many moons to you count? Do you agree with Micah?

For Exercise 5, ask students,

- How many cats? Circle the group with 5 cats.

Common Error: Exercises 1–5 Some students may count an object more than once. Help students develop one-to-one correspondence by reminding them to touch each object as they say the number name.

Practice Item Analysis

Item	DOK	Rigor
1–4	2	Conceptual Understanding
5	3	Application

Reflect

Students complete the Reflect question.

- How can you count the number of crabs?

Ask students to share their reflections with their classmates.

Math is... Mindset

- How have you made sense of problems?

Students reflect on how they practiced self-regulation.

Learning Targets

Ask students to Reflect on the Learning Targets of the lesson.

- I can count objects to 5.
- I can explain how to count objects to 5.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

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Exit Ticket Recommendations

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1 or 2	*Take Another Look* or any of the B activities
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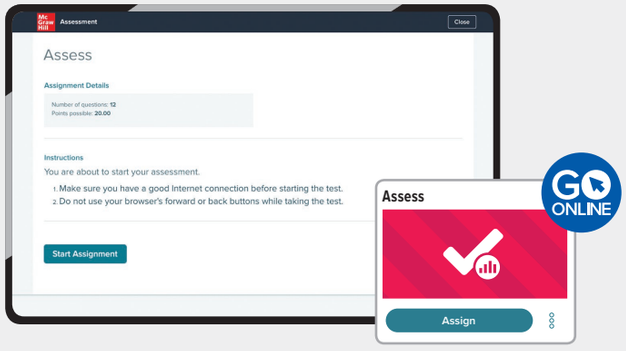
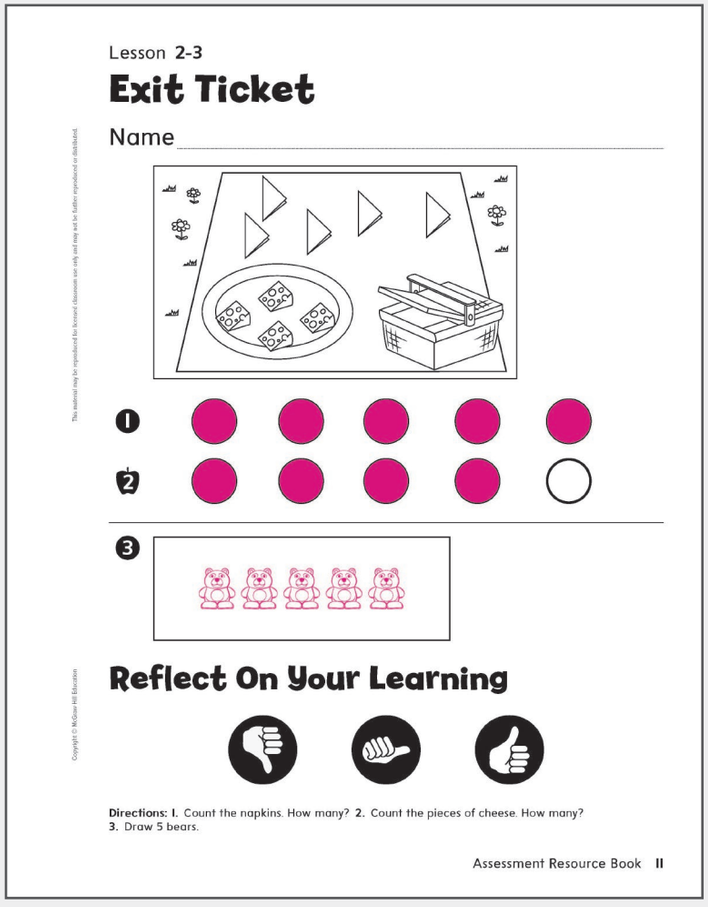
Key for Differentiation

R Reinforce Understanding

B Build Proficiency

E Extend Thinking





Lesson 2-3

Exit Ticket

Name _____

1

2

3

Reflect On Your Learning

Directions: 1. Count the napkins. How many? **2.** Count the pieces of cheese. How many? **3.** Draw 5 bears.

Assessment Resource Book II

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Knock, Knock

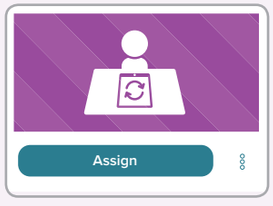
Work with groups of 3 students. Assign each student a role. The "knocker" knocks on the back of the counter's chair 1–3 times. The "counter" lays down a counter per knock, then says how many. The "watcher" draws a dot per knock, then says if and why they agree with the counter. If students are representing the knocks without counting, suggest they touch each counter or dot while counting. Repeat, working up to 5 knocks.

GO ONLINE

Take Another Look Lesson

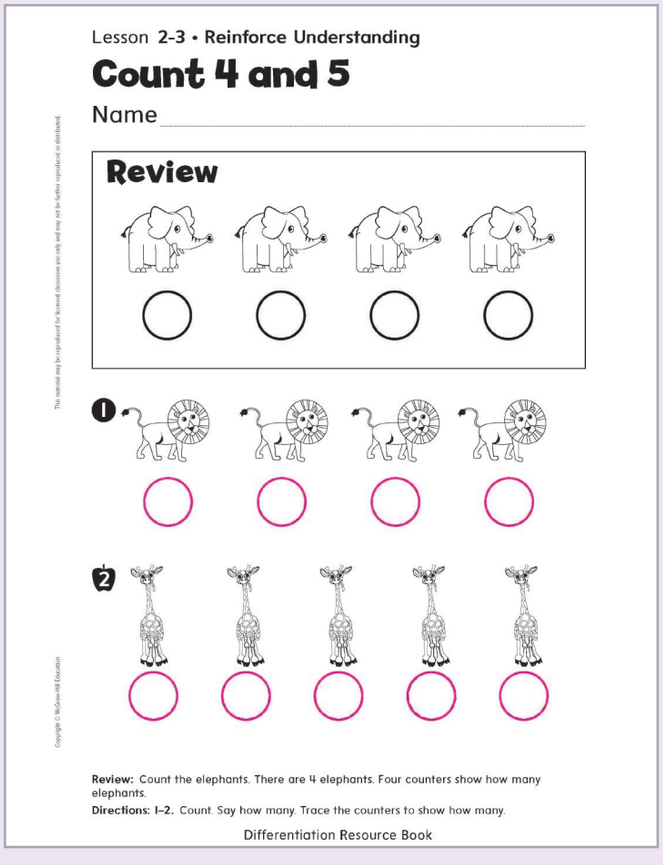
Assign the interactive lesson to reinforce targeted skills

- Count to 5 with Dots as Objects



INDEPENDENT WORK

Differentiation Resource Book, p. 5



Lesson 2-3 • Reinforce Understanding

Count 4 and 5

Name _____

Review

1

2

Review: Count the elephants. There are 4 elephants. Four counters show how many elephants.

Directions: 1–2. Count. Say how many. Trace the counters to show how many.

Differentiation Resource Book

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

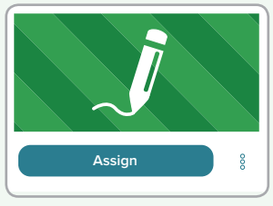
Counting Race

Students practice counting up to 5 objects.

GO ONLINE

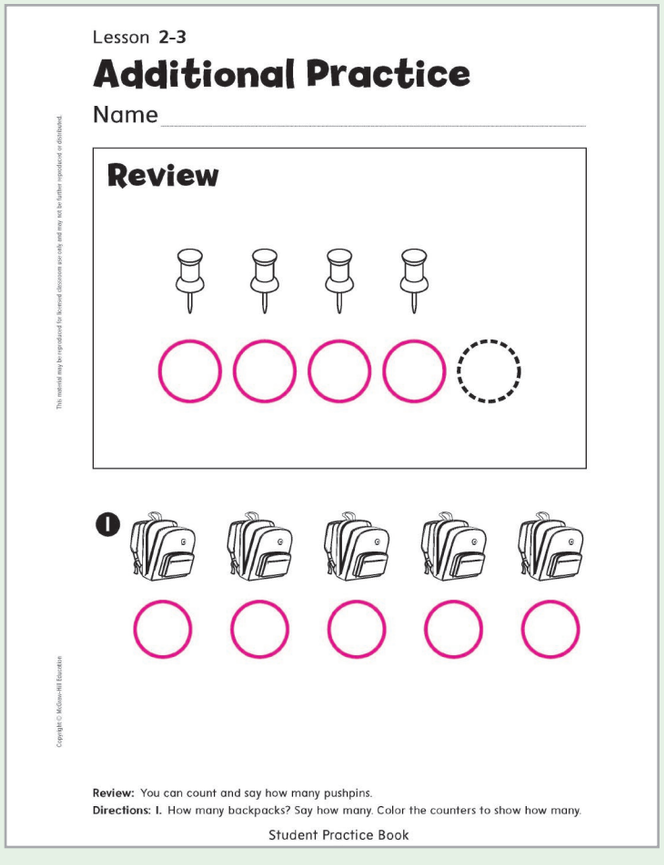
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Student Practice Book, pp. 5–6



Lesson 2-3

Additional Practice

Name _____

Review

1

Review: You can count and say how many pushpins.

Directions: 1. How many backpacks? Say how many. Color the counters to show how many.

Student Practice Book

E Extend Thinking

WORKSTATIONS

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

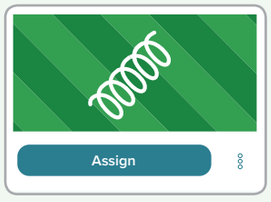
Use It! Application Station

Musical Chairs Students play musical chairs, counting the number of students and chairs. *He content of this card has concepts covered later in Lesson 2-7. You may want to assign this card to students ready to explore content covered later in this unit.*

GO ONLINE

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

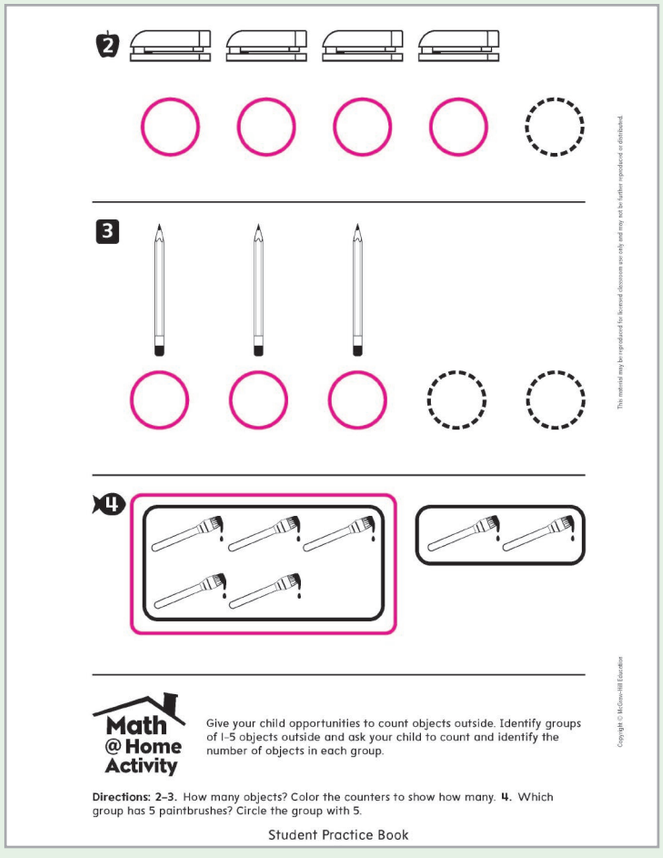


STEM Adventure

Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 5–6



2

3

4

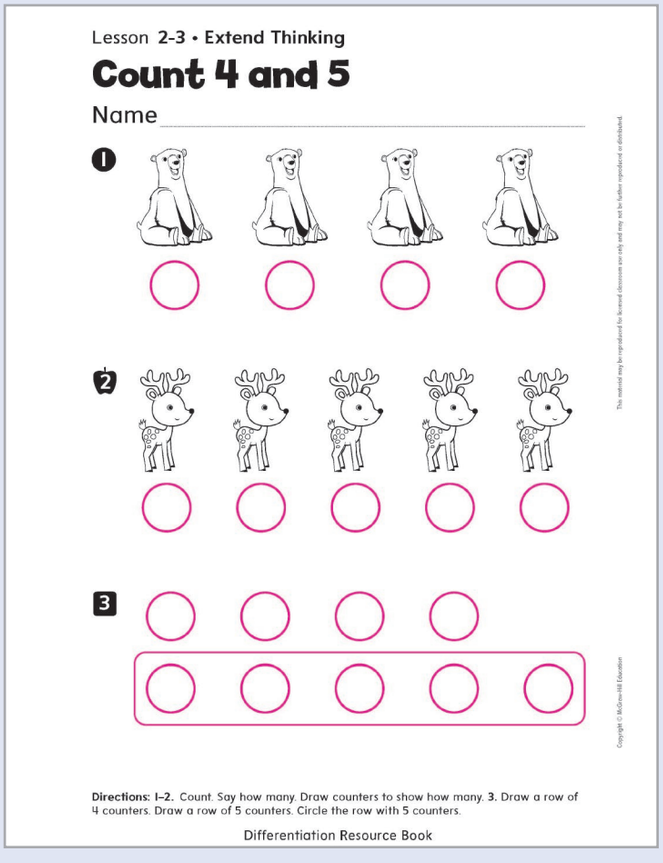
Math @ Home Activity

Give your child opportunities to count objects outside. Identify groups of 1-5 objects outside and ask your child to count and identify the number of objects in each group.

Directions: 2–3. How many objects? Color the counters to show how many. **4.** Which group has 5 paintbrushes? Circle the group with 5.

Student Practice Book

Differentiation Resource Book, p. 6



Lesson **2-3 • Extend Thinking**

Count 4 and 5

Name _____

1

2

3

Directions: 1–2. Count. Say how many. Draw counters to show how many. **3.** Draw a row of 4 counters. Draw a row of 5 counters. Circle the row with 5 counters.

Differentiation Resource Book

LESSON **2-4**

Represent 4 and 5

Learning Targets

- I can show numbers 4 and 5.
- I can explain how to show numbers 4 and 5.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.B** Count to tell the number of objects.

◇ **K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.

◇ **KCC.B.4.b** Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.

Math Practices and Processes

MPP Attend to precision.

Vocabulary

Math Terms	Academic Terms
four (4)	model
five (5)	order

Materials

The materials may be for any part of the lesson.

- bags
- connecting cubes
- counters
- *Number Cards 0–10* Teaching Resource

Focus

Content Objective	Language Objective	SEL Objective
• Students count groups of objects to 5, regardless of their arrangement. • Students recognize the numerals 4 and 5.	• Students articulate numerals 4 and 5 by matching them to sets of 4 and 5 objects. • Support cultivating conversation by participating in MLR4: Information Gap.	• Students exchange ideas for problem-solving with a peer and provide constructive feedback.

Coherence

Previous	Now	Next
• Students counted objects to 5 (Unit 2).	• Students count objects up to 5, and represent the number of objects counted.	• Students understand the relationship of numbers in the counting sequence (Unit 2). • Students represent the numbers 6 and 7 (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students count objects in a scattered arrangement up to 5 objects.	• Students understand how to show the number of objects in a group up to 5 with manipulatives and numerals.	• Students represent numbers 4 and 5 with manipulatives and a numeral. *Application is not a targeted element of rigor for this standard.*

Number Routine What Did You See? 5–7 min

GO ONLINE

Build Fluency Students build their counting skills as they determine the number of dots that are shown on a card.

These prompts encourage students to talk about their reasoning:

- How many dots were on the card? Explain how you know.
- How did you count the dots?
- How did you use numbers to help you?
- How can you show the number?

Purpose Students notice the number of different things in the image.

Notice & Wonder™

- What do you notice? What do you wonder?

Teaching Tip Draw students' attention to the group of cows and ask them how many cows they see in the picture. Repeat with different groups of objects to encourage students to begin noticing the number of objects in each group.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about how to describe the groups of animals.

- What groups do you see in the picture?
- How can you use counting to describe the groups?

Math is... Mindset

- How can you show respect to your classmates?

SEL Social Awareness: Respect

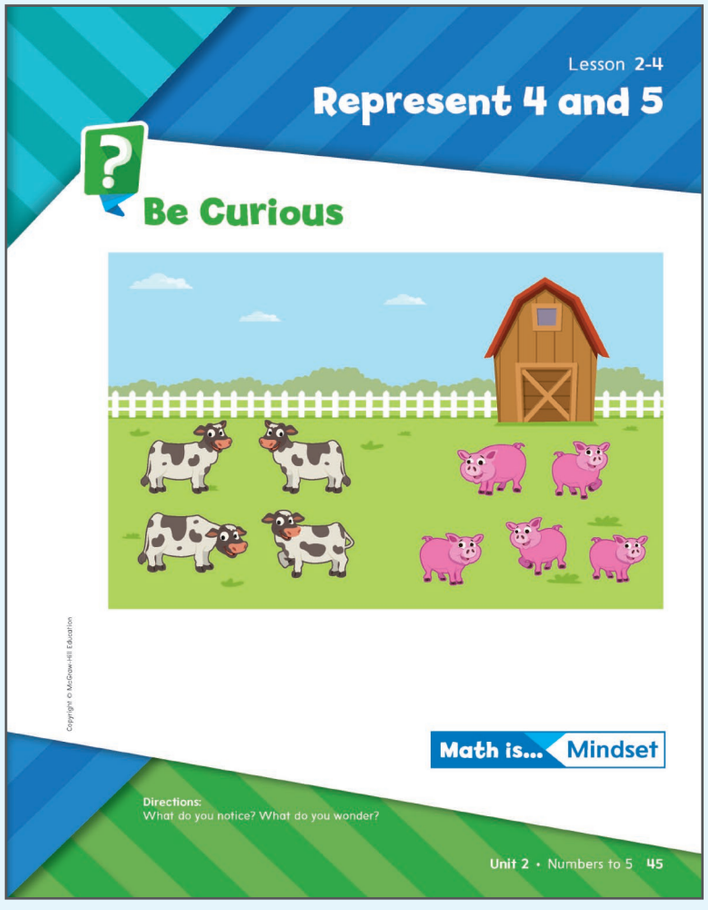
As students work with partners to complete the Notice & Wonder routine, remind them to show respect by listening attentively when others are sharing their ideas. Provide models of constructive and respectful feedback to guide students. As students share ideas about what they noticed and wondered, encourage classmates to provide thoughtful feedback to one another. Remind students that respecting others is an important part of being a member of the class community.

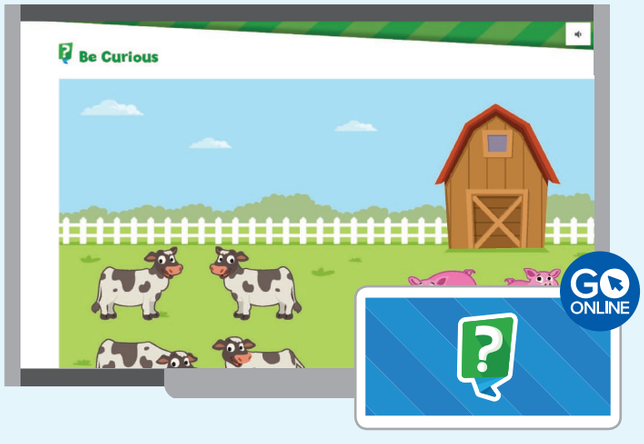
Transition to Explore & Develop

Ask questions that get students to think about how to represent the number of animals in a group.

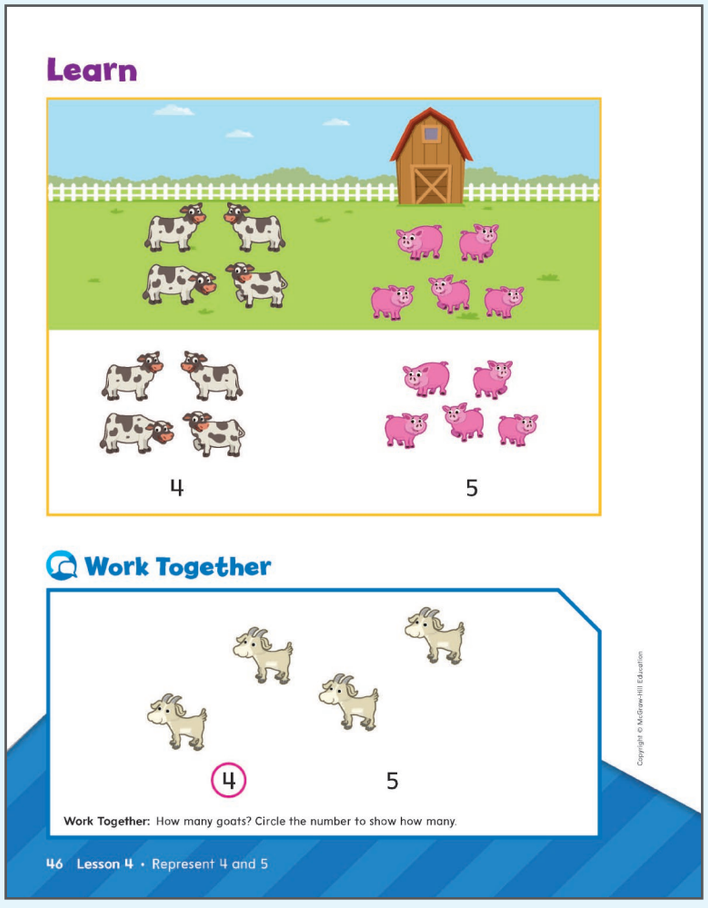
ETP Establish Goals to Focus Learning

- How can we show how many there are of each animal?





Explore & Develop 20 min



1 Pose the Problem

Read the problem to students.

- How can we talk about what we see in this picture?

ETP Pose Purposeful Questions

- What can you say about the groups of animals?

2 Develop the Math

Choose the option that best meets your instructional goals.

MLR Information Gap

Give pairs a set of 5 counters and a set of numeral cards. One partner displays one of the numeral cards. The other partner identifies the numeral and then draws the corresponding number of dots. Partners check to see if the number of dots matches the numeral displayed.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How can you count items in a group?
- How can you show the number of items in a group?

Key Takeaways

- Counting tells how many are in a group of up to 5 objects, regardless of arrangement or the order in which they were counted.
- A numeral represents the number of objects counted.
- You can count a group no matter how the objects are arranged.
- A number shows how many are in a group.

Work Together

- How many goats? Circle the number to show how many.

Students circle the number that represents the number of goats. Check that students correctly count the number of goats, and then identify the number 4.

Common Misconception Students may struggle to see the connection between different arrangements of the same number of objects. Have students count, move the object, and count again to help them understand that the count does not change.

LOM Language of Math

Students should understand that the question *How many?* can be answered by counting. Before students count, they should recognize that the answer to the question will be a number. This idea of using the language of math to preview an answer type is an important problem-solving strategy.

CHOOSE YOUR OPTION

Activity-Based Exploration

Students explore how to count and represent a group of up to 5 objects with a number. Students also explore how to count objects in different arrangements.

Materials: connecting cubes (5 per student)

Directions: Show students 4 connecting cubes. How many? How do you know? Have students use their connecting cubes to show 4. Then have students move their cubes into a different arrangement, such as a horizontal or vertical line. How many now? How do you know?

Write the numeral 4. Explain that the number 4 can be used to represent 4 objects.

Repeat the activity with 5 objects. Encourage students to move their groups of cubes into different arrangements and ask them to identify how many. Discuss that the number of objects does not change regardless of how they are arranged.

Take students on a walk through the school to look for numbers 4 and 5 in different places. Before the walk, ask students to predict where they will see different numbers.

Throughout the walk, check on students' reasoning.

ETP Support Productive Struggle

- What number do you see?
- What does the number tell us?
- Where else have you seen that number?

After the walk, have students share their discoveries. Record their responses next to each numeral on the board or chart paper. Encourage students to continue looking for numbers throughout the school day and at home. Continue to add their findings to the class list.

Math is... Precision

- How can you show the number of objects you count?

Students think about how specific numbers represent groups of objects.

Activity Debrief: Show students a number and have them make a group with that many objects. Repeat with numbers 4 and 5.

Have students revisit the Pose the Problem question and discuss answers.

- How can we talk about what we see in this picture?

Guided Exploration

Students understand how to show a number of items in a group.

Count the number of cows, and use counters to show that there are 4. Discuss that the number 4 is used to show that there are 4 objects.

Then, count the 5 pigs, and show 5 by displaying 5 counters. Discuss that the number 5 can be used to represent the 5 pigs.

ETP Facilitate Meaningful Discourse

- How can you count the cows?
- What can be used to show the number of cows?
- What can you say about the number of pigs?
- How can you show the number of pigs?

Think About It: What does the number 5 tell us about the group of pigs?

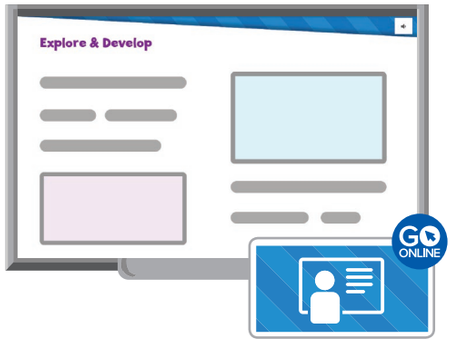
Ask students to show the number 5 with items from their desks or tables.

- How do you know that you are showing 5?

Math is... Precision

- What can you use to show the number of objects in a group?

Students think about how specific numbers represent groups of objects.



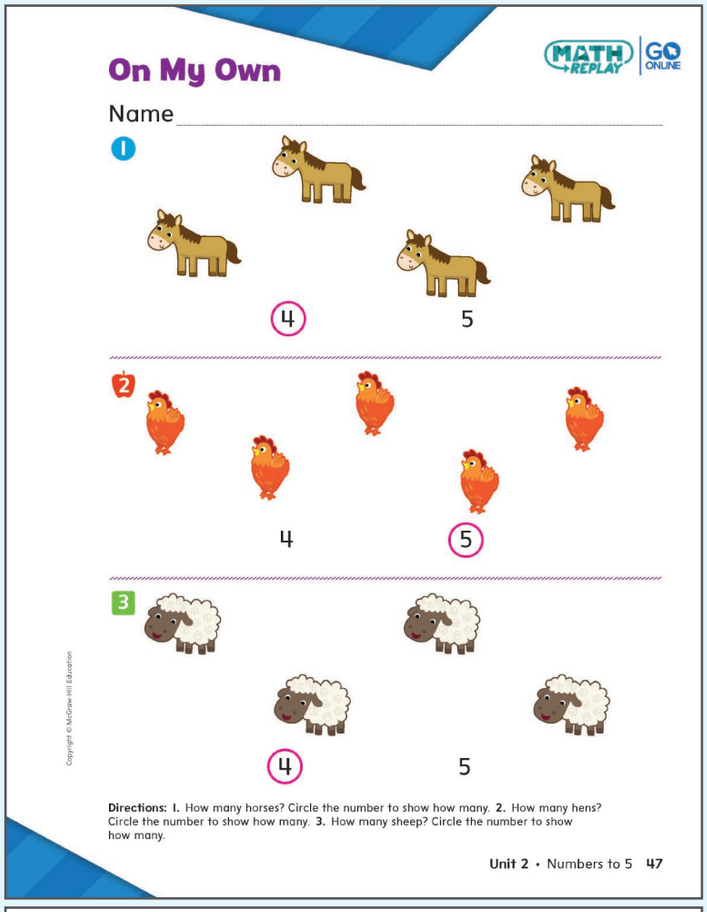
EL English Learner Scaffolds

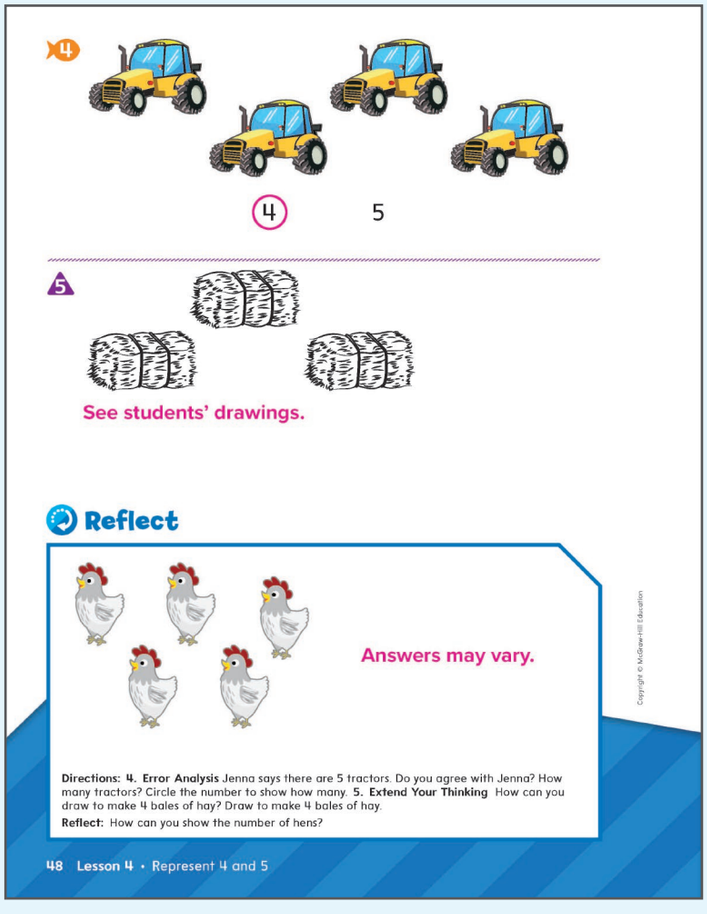
Entering/Emerging Support students with understanding the structure, *You can use ____ to show ____*. Gather 5 books and 5 counters. Place 1 book with 1 counter, 2 books with 2 counters, etc. To check comprehension, hold up 1–5 pencils and ask, *How many counters can I use to show ____ book(s)?* Elicit the number to answer the question.

Developing/Expanding Support students with understanding the structure, *You can use ____ to show ____*. Gather 5 books and 5 counters. Place 1 book with 1 counter, 2 books with 2 counters, etc. To check comprehension, hold up 1–5 books and ask, *How many counters can you use to show these books?* Elicit a response such as, *5 counters to show 5 books.*

Bridging/Reaching Give students opportunities to explain how many counters you can use to show a certain number of objects. Point to 1–5 classroom objects. Ask, *How many counters can we use to show the number of books?* Elicit a full sentence response using the structure, *You can use ___ counters to show ____ objects.*

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercise 1, ask students,

- How many horses? Circle the number to show how many.

For Exercise 2, ask students,

- How many hens? Circle the number to show how many.

For Exercise 3, ask students,

- How many sheep? Circle the number to show how many.

For Exercise 4, ask students,

- Jenna says there are 5 tractors. Do you agree with Jenna? How many tractors? Circle the number to show how many.

For Exercise 5, ask students,

- How can you draw to make 4 bales of hay?

Common Error: Exercises 1–5 Students may struggle to say one number name with one object. Encourage students to say the number name as they touch each object.

Practice Item Analysis

Item	DOK	Rigor
1–4	2	Conceptual Understanding
5	3	Application

Reflect

Students complete the Reflect question.

- How can you show the number of hens?

Ask students to share their reflections with their classmates.

Math is... Mindset

- How have you shown respect to your classmates?

Students reflect on how they practiced social awareness.

Learning Targets

Ask students to reflect on the Learning Targets of the lesson.

- I can show numbers 4 and 5.
- I can explain how to show numbers 4 and 5.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

Exit Ticket Skill Tracker

Item	DOK	Skill	Standard
1	1	Represent 4 and 5	K.CC.B.4
2	2	Represent 4 and 5	K.CC.B.4

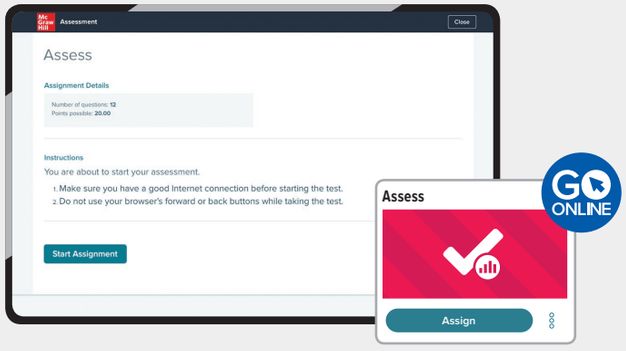
Data Use students' scores on the *Exit Ticket* to assign the differentiated resources available. When students complete the *Exit Ticket* in the digital workspace, their responses are auto-scored.

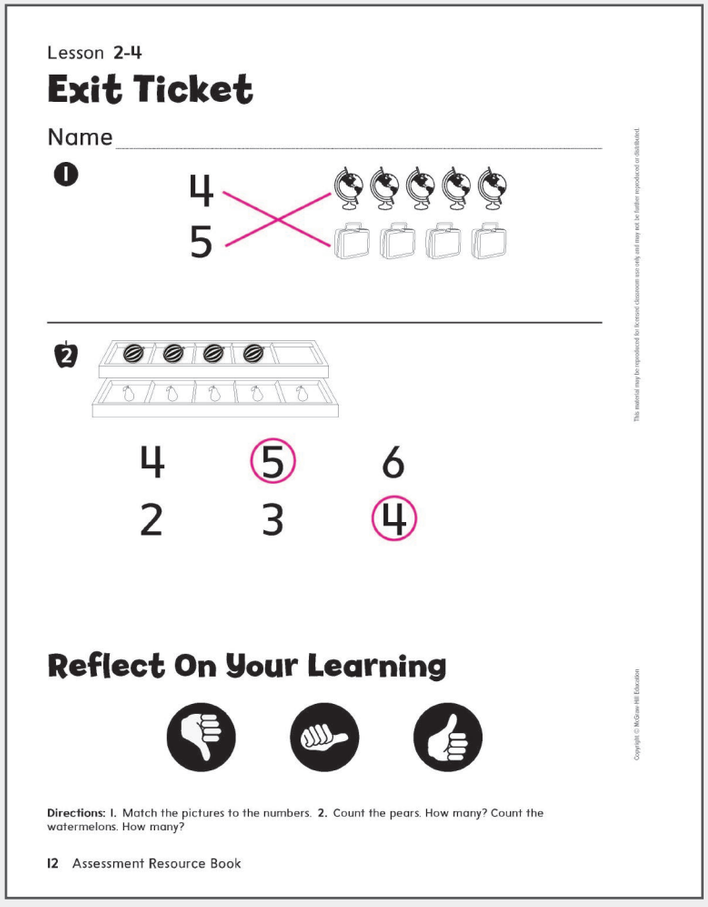
Exit Ticket Recommendations

If students score	Then have students do
2 of 2	Additional Practice or any of the B or E activities
1 or 2	*Take Another Look* or any of the B activities
0 of 2	Small Group Intervention or any of the R activities

Key for Differentiation

R Reinforce Understanding
B Build Proficiency
E Extend Thinking





Lesson 2-4

Exit Ticket

Name _____

1

4
5

2

4 5 6
2 3 4

Reflect On Your Learning

Directions: 1. Match the pictures to the numbers. 2. Count the pears. How many? Count the watermelons. How many?

12 Assessment Resource Book

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Number Charades

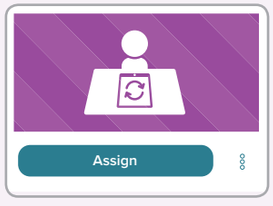
Work with groups of 4 students. Use the *Number Cards 0–10* Teaching Resource to prepare cards for numbers 1–5. Put number cards 1–3 in a bag. One student picks a card and acts out the number, such as jumping 3 times. Other students try to guess the number and then show it with counters. Students explain how they represented the amount. Take turns choosing numbers from the bag and acting them out. After a few rounds, add in number cards 4 and 5.

GO ONLINE

Take Another Look Lessons

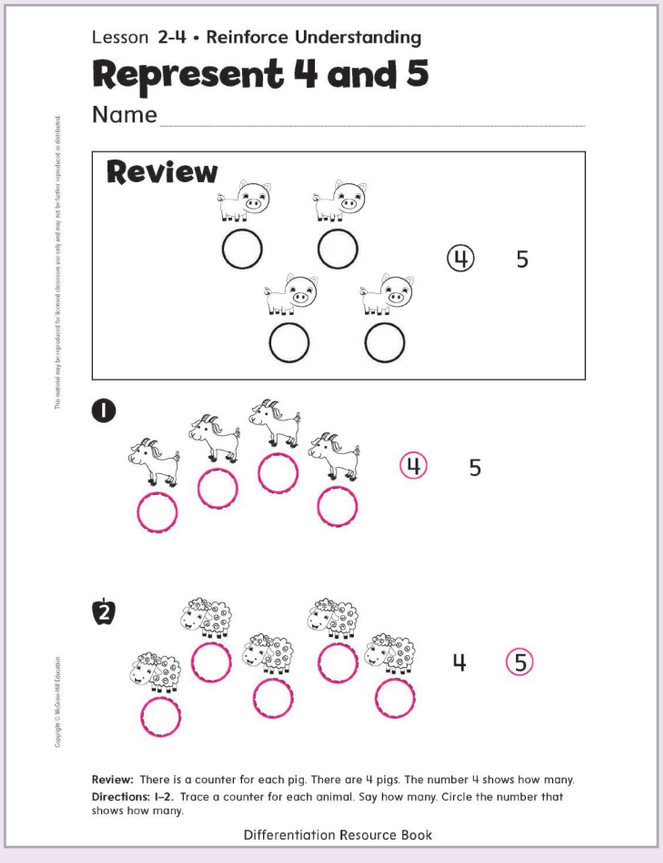
Assign the interactive lessons to reinforce targeted skills.

- Recognize Numerals 1 to 5
- Identify Sets of 1 to 5 Objects



INDEPENDENT WORK

Differentiation Resource Book, p. 7



Lesson 2-4 • Reinforce Understanding

Represent 4 and 5

Name _____

Review

4 5

1

4 5

2

4 5

Review: There is a counter for each pig. There are 4 pigs. The number 4 shows how many.
Directions: 1–2. Trace a counter for each animal. Say how many. Circle the number that shows how many.

Differentiation Resource Book

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

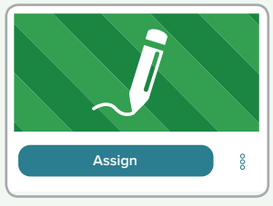
Counting Clip Cards

Students practice identifying numerals to describe sets of up to 5 objects.

GO ONLINE

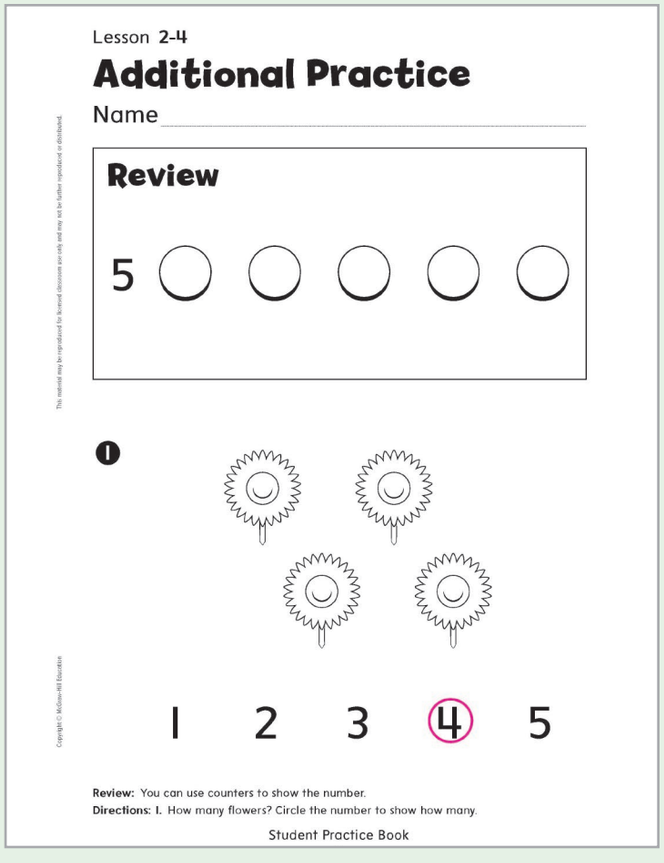
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Student Practice Book, pp. 7–8



Lesson 2-4

Additional Practice

Name _____

Review

5

1

1 2 3 4 5

Review: You can use counters to show the number.
Directions: 1. How many flowers? Circle the number to show how many.

Student Practice Book

E Extend Thinking

WORKSTATIONS

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

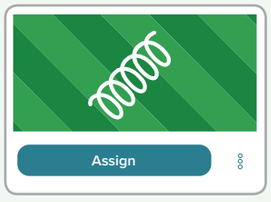
Use It! Application Station

A Farm Maze Students describe how to move in the maze to see all the animals.

GO ONLINE

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

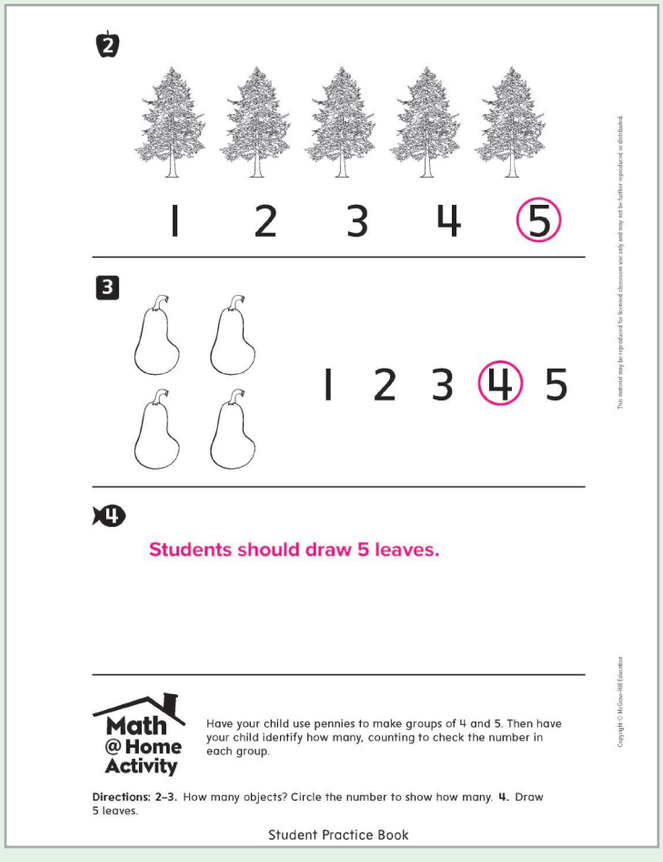


STEM Adventure

Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 7–8



2

1 2 3 4 5

3

1 2 3 4 5

4

Students should draw 5 leaves.

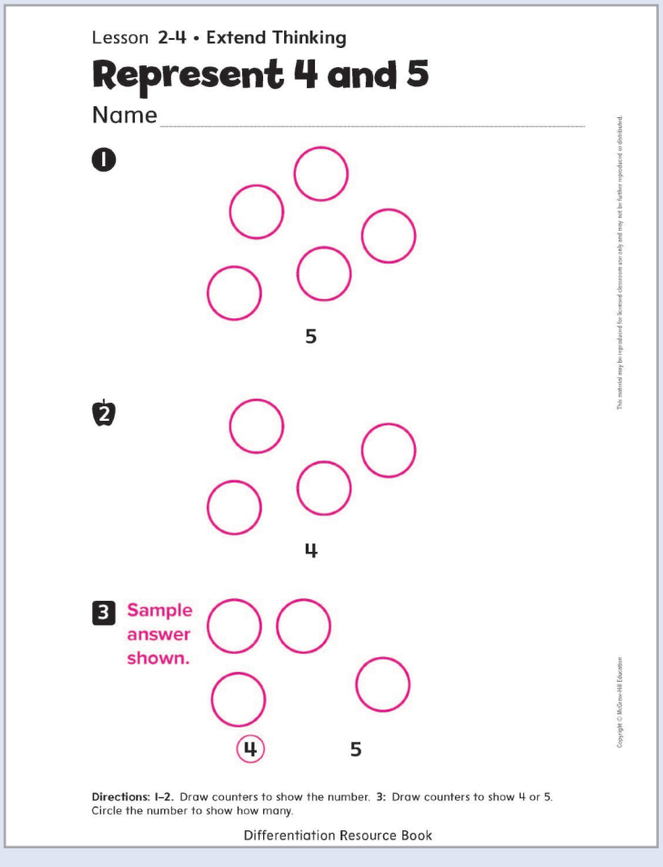
Math @ Home Activity

Have your child use pennies to make groups of 4 and 5. Then have your child identify how many, counting to check the number in each group.

Directions: 2–3. How many objects? Circle the number to show how many. **4.** Draw 5 leaves.

Student Practice Book

Differentiation Resource Book, p. 8



Lesson **2-4 • Extend Thinking**

Represent 4 and 5

Name _____

1

5

2

4

3 Sample answer shown.

4 5

Directions: 1–2. Draw counters to show the number. **3:** Draw counters to show 4 or 5. Circle the number to show how many.

Differentiation Resource Book

LESSON **2-5**

Represent 0

Learning Targets

- I can identify 0.
- I can explain how to identify 0.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.A** Know number names and the count sequence.

◇ **K.CC.A.3** Write numbers 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects.)

Math Practices and Processes

MPP Reason abstractly and quantitatively.

Vocabulary

Math Terms	Academic Terms
zero (0)	example
	explain

Materials

The materials may be for any part of the lesson.

- baskets
- connecting cubes
- counters
- *Dot Cards 1–5* Teaching Resource
- *Number Cards 0–10* Teaching Resource

Focus

Content Objective	Language Objective	SEL Objective
• Students identify zero as a group with no objects. • Students recognize the numeral 0.	• Students articulate the numeral 0 by matching it to a group with no objects. • Support sense-making and optimizing output by participating in MLR2: Collect and Display.	• Students practice staying focused on a mathematical problem for the set time.

Coherence

Previous	Now	Next
• Students represented objects to 5 (Unit 2).	• Students understand that zero (0) represents nothing.	• Students understand the relationship of numbers in the counting sequence (Unit 2). • Students represent numbers to 10 (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop an understanding that a group with no objects is represented with a zero (0).	• Students build proficiency in counting objects and representing the number of objects with a numeral, including 0.	• Students begin to apply their understanding of counting in a variety of real-world contexts, including situations with no objects. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine
What Did You See? 5–7 min

Build Fluency Students build their counting skills as they determine the number of dots that are shown on a card.

These prompts encourage students to talk about their reasoning:

- How many dots were on the card? Explain how you know.
- How did you count the dots?

Purpose Students will notice that there are no fish in one tank and some fish in the other tank.

Notice and Wonder™

- What do you notice? What do you wonder?

Teaching Tip To get students thinking about the number of objects in each fish tank, encourage them to represent each fish with counters. Then ask what they notice about the counters.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about what it means if a group has no objects.

- How are the fish tanks the same?
- How are the fish tanks different?
- What can you say about the first fish tank?
- How can you use numbers to describe each fish tank?

Math is... Mindset

- How can you stay focused?

SEL Self-Regulation: Maintain Focus

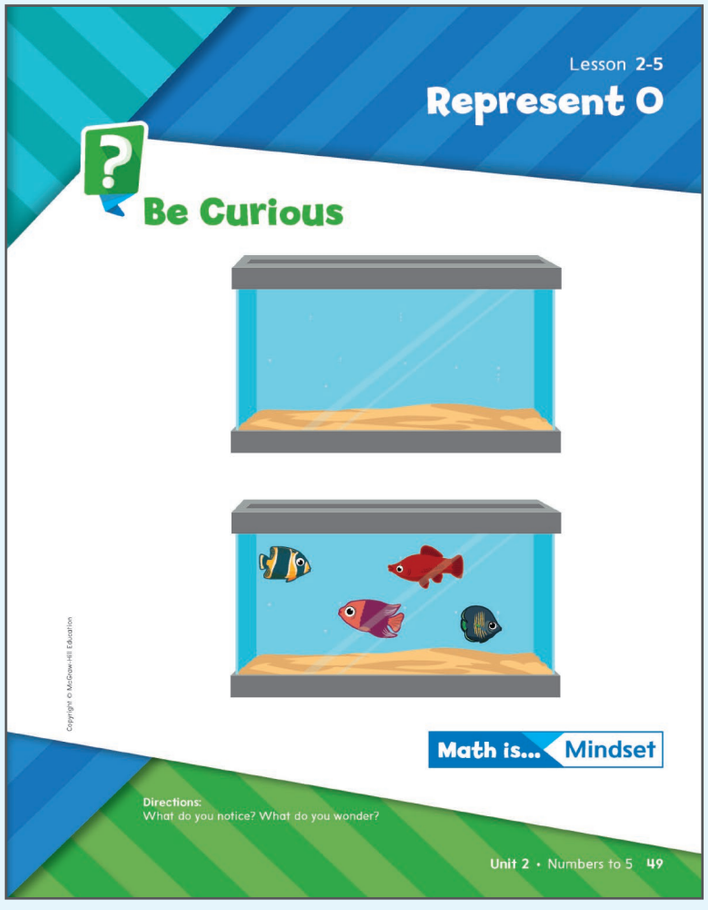
Invite students to set a class Focus Goal for the Notice & Wonder routine by agreeing on a set time that they will independently focus on noticing and wondering. As students work through this time, remind them to be mindful of their collective goal. Model constructive strategies and language for helping others stay on task, as well as for maintaining one's own focus. If students lose focus, allow them to take independent breaks to help them regain their focus.

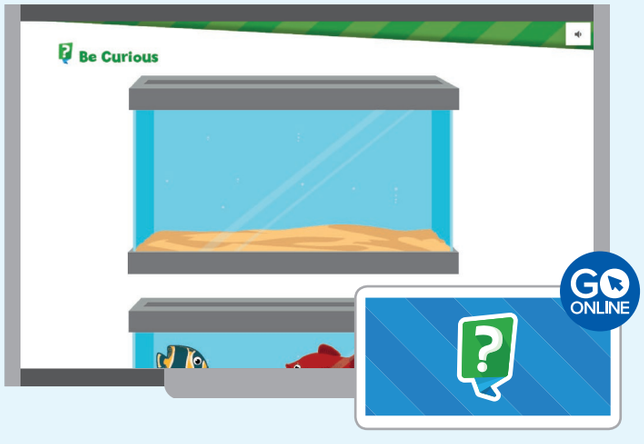
Transition to Explore & Develop

Ask questions that get students to think about how to describe a group that has no objects.

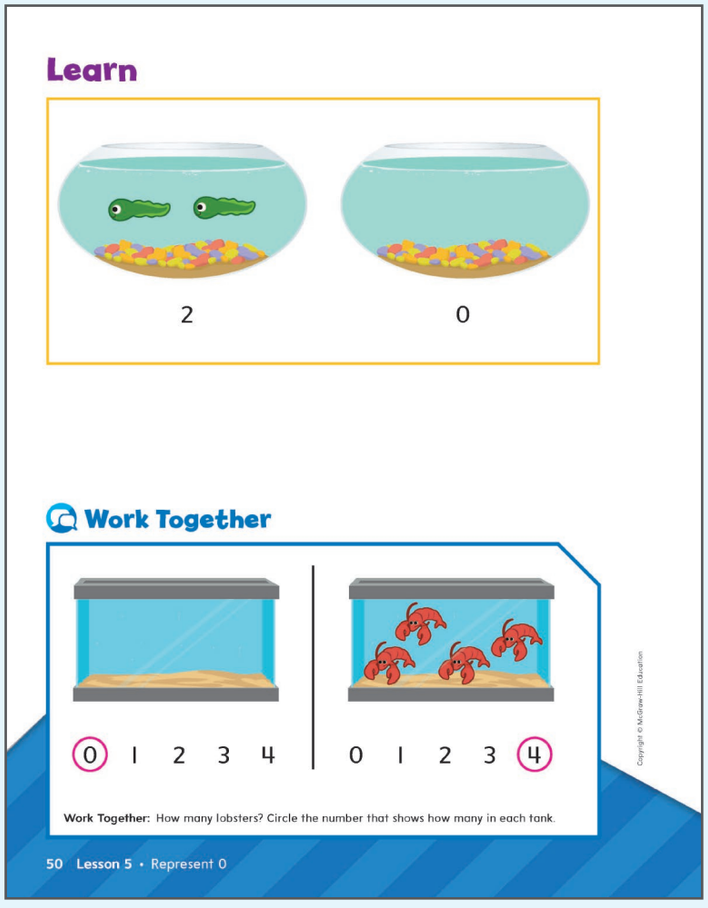
ETP Establish Goals to Focus Learning

- How can you show a group with no objects?





Explore & Develop 20 min



1 Pose the Problem

MLR Collect and Display

Write the numerals 0–5 vertically on the left side of flipchart paper. Brainstorm ideas to draw for each number (1 cat, 2 books, 3 balloons). Draw the items next to the numbers. Ask, *What do we draw for 0?* Elicit that no objects are drawn for 0. Display the poster to use as a reference.

Read the problem to students.

- There are no fish in the aquarium. How can you show a group with no objects?

ETP Pose Purposeful Questions

- What have you used to show a group of objects?

2 Develop the Math

Choose the option that best meets your instructional goals.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How can you show a group with no objects?
- What do you know about zero?

Key Takeaways

- Zero is the number that tells how many objects are in a group when there are none.
- A group with no objects has zero.

Work Together

- How many fish? Circle the number that shows how many in each tank.

Students count the fish in each tank and circle the number that represents each group. Check that students are able to identify the numeral zero for the tank on the left that has no fish, and that students correctly count the group on the right and identify the numeral four.

Common Misconception Students may not see 0 as a number. Encourage students to say *zero* to describe a group with no objects. Avoid the use of the word *none*.

LOM Language of Math

Students may need time to get used to the idea that there is a number that represents nothing. Have students answer questions that give them the opportunity to use the word zero in a variety of real-world contexts. For example,

- How many cards did you drive to school today? or How many hats am I wearing?

CHOOSE YOUR OPTION

Activity-Based Exploration

Students will explore the concept of zero.

Materials: basket (1 per group), connecting cubes (5 per student)

Directions: Ask students to show 5 cubes. How many cubes do you have? How do you know?

Have students place one of their cubes back into the basket or container. How many cubes do you have now? Repeat until the students have no cubes left. How many are left? Write the numeral 0 on the board. Explain that 0 is the number we use to represent a group with no objects. We have 0 cubes.

Invite students to look around the classroom for the number 0. As students work, check on their reasoning.

ETP Support Productive Struggle

- Where did you find 0?
- What does the 0 represent?

Math is... Thinking

- What does it mean to have 0?

Students think about the meaning of 0.

Activity Debrief: Have students share how they knew when they had 0 cubes. Discuss what there is 0 of in the classroom.

Have students revisit the Pose the Problem question and discuss answers.

- There are no fish in the aquarium. How can you show a group with no objects?

Guided Exploration

Students begin to understand that a group with no objects has 0 objects.

Discuss that there are no fish in the tank and that 0 represents a group with no objects.

Look at the groups of animals. Count the animals in one group and discuss how there are 0 animals in the other group.

ETP Facilitate Meaningful Discourse

- How can you represent a group with no objects?

Think About It: What does it mean if you have zero of something?

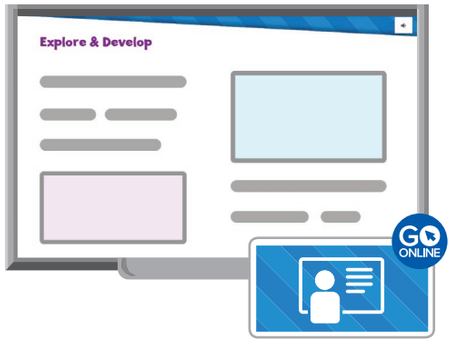
- What is an example of something that we have 0 of in our classroom?
- How could you explain to a friend what 0 means?

Have students work with a partner to show a group of up to five objects using items found a their table or desk. Ask students to then show their partner a group with 0 objects.

Math is... Thinking

- What does it mean to have 0?

Students think about the meaning of 0.



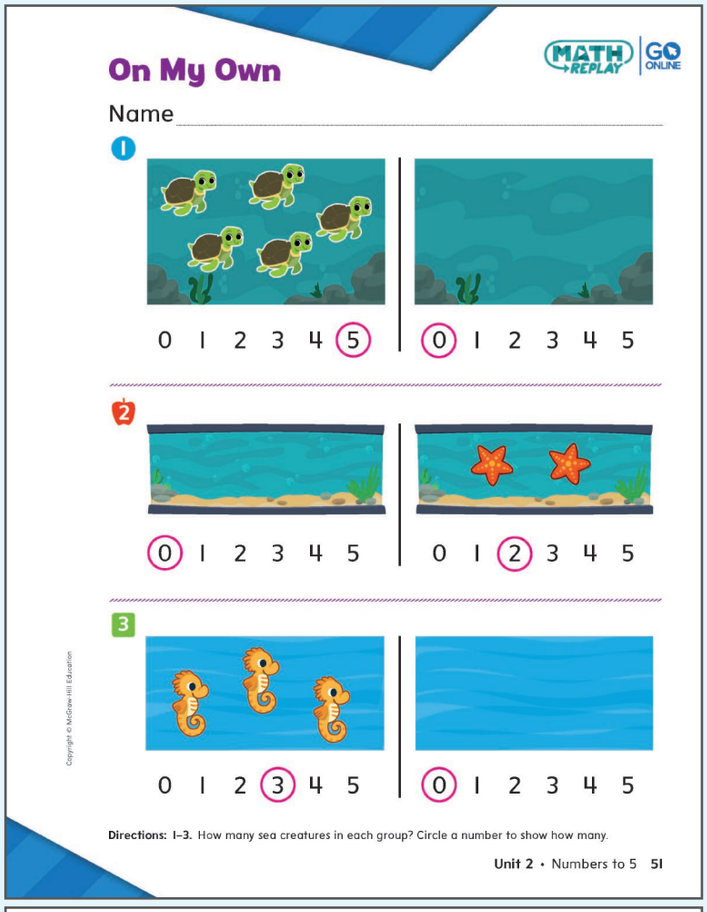
EL English Learner Scaffolds

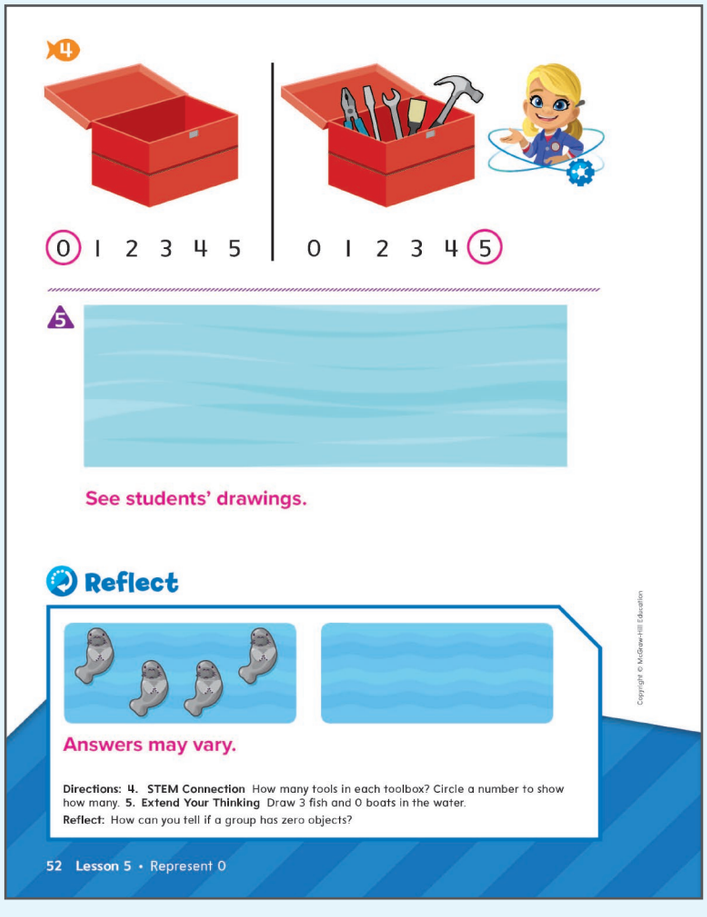
Entering/Emerging Support students with understanding the word *represent*. Write the numbers 0–5. Under each number, draw the same number of circles. Then point to the number 0 and say, *The number 0 represents no circles.* To check comprehension, point to the numbers and ask, *What does this number represent?*

Developing/Expanding Support students with understanding the word *represent*. Write the numbers 0–5. Under each number, draw the same number of circles. Then point to the number 0 and say, *The number 0 represents no circles.* To check comprehension, point to the numbers and ask, *What does this number represent?* Elicit a response such as, *It represents four.*

Bridging/Reaching Give students opportunities to explain what each number represents. Point to numbers 0–5 and say, *Tell me about this number. What does it represent?* Elicit a full sentence response using the word: *The number four represents four ____.*

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercises 1–3, ask students,

- How many sea creatures in each group? Circle a number to show how many.

For Exercise 4, ask students,

- How many tools in each toolbox? Circle a number to show how many.

For Exercise 5, tell students,

- Draw 3 fish and 0 boats in the water.

Common Error: Exercises 1–5 Students may struggle to consider the number zero to describe a group of objects. To help students with this concept, provide a group of counters for students to count. Remove the counters and have students tell how many.

Practice Item Analysis

Item	DOK	Rigor
1–4	2	Conceptual Understanding
5	3	Application

Reflect

Students complete the Reflect question.

- How can you tell if a group has zero objects?

Ask students to share their reflections with their classmates.

Math is... Mindset

- How have you stayed focused?

Students reflect on how they practiced self-regulation.

Learning Targets

Ask students to reflect on the Learning Targets of the lesson.

- I can identify 0.
- I can explain how to identify 0.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

Exit Ticket Skill Tracker

Item	DOK	Skill	Standard
1	1	Represent 0	K.CC.A.3
2	1	Represent 0	K.CC.A.3

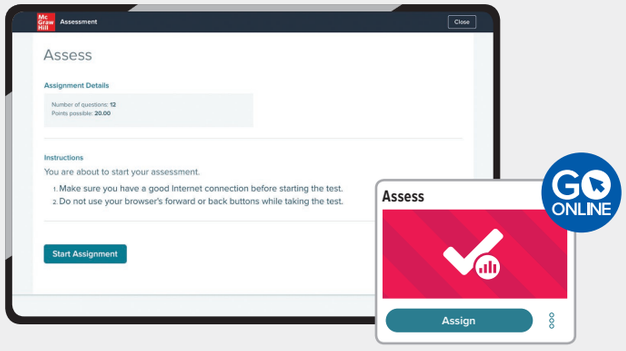
Data Use students' scores on the *Exit Ticket* to assign the differentiated resources available. When students complete the *Exit Ticket* in the digital workspace, their responses are auto-scored.

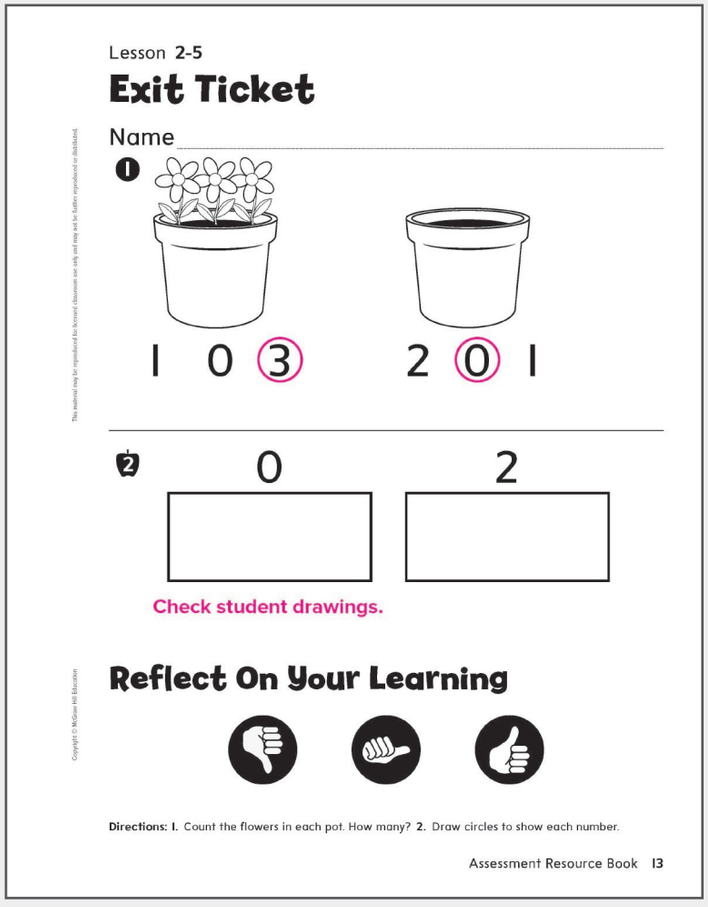
Exit Ticket Recommendations

If students score	Then have students do
2 of 2	Additional Practice or any of the B or E activities
1 or 2	*Take Another Look* or any of the B activities
0 of 2	Small Group Intervention or any of the R activities

Key for Differentiation

R Reinforce Understanding
B Build Proficiency
E Extend Thinking





Lesson 2-5

Exit Ticket

Name _____

1

I 0 3 2 0 I

2

0 2

Check student drawings.

Reflect On Your Learning

Directions: 1. Count the flowers in each pot. How many? **2.** Draw circles to show each number.

Assessment Resource Book 13

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Pick a Card!

Work with pairs of students. Use the *Number Cards 0–10* Teaching Resource to prepare cards for numbers 0–5. Put the number cards face down on the table. The first partner chooses a card and looks at the number without showing it to their partner, then uses counters to show the number. Their partner looks through the *Dot Cards 1–5* Teaching Resource and finds the match. Students switch roles and repeat. After a few rounds, add in the 0 number card and picture card.

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

Wild Zero Showdown

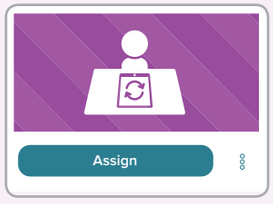
Students practice comparing numbers of objects and identifying zero.

GO ONLINE

Take Another Look Lesson

Assign the interactive lesson to reinforce targeted skills.

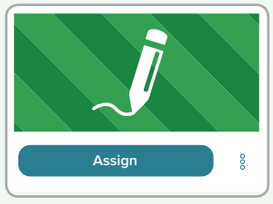
- Meaning of Zero



GO ONLINE

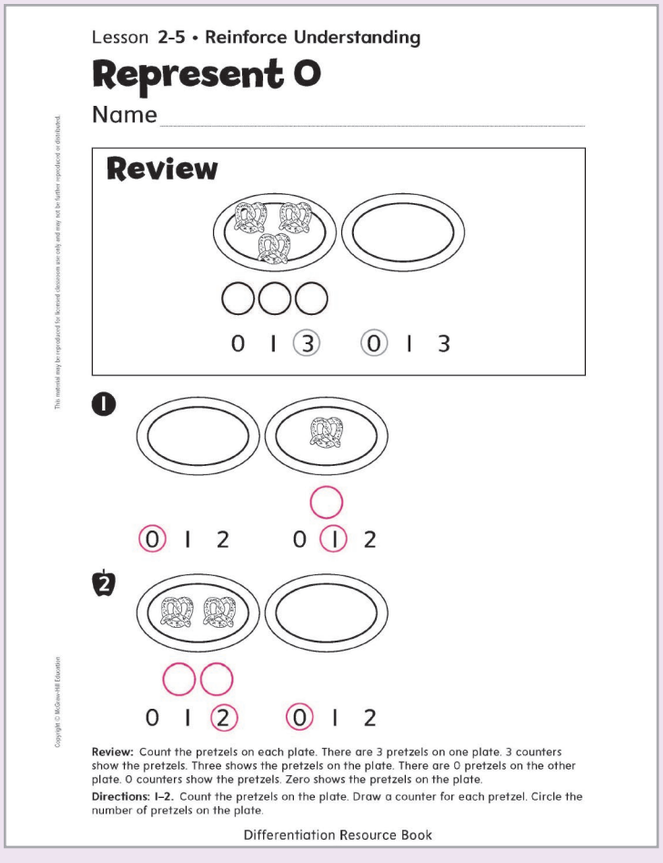
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Differentiation Resource Book, p. 9



Lesson 2-5 • Reinforce Understanding

Represent 0

Name _____

Review

0 1 3 0 1 3

1

0 1 2 0 1 2

2

0 1 2 0 1 2

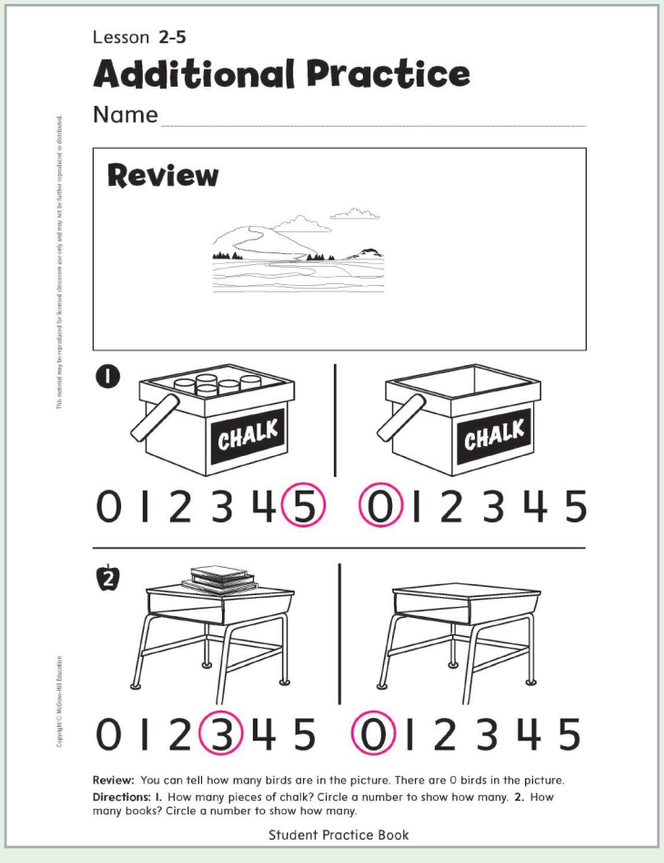
Review: Count the pretzels on each plate. There are 3 pretzels on one plate. 3 counters show the pretzels. Three shows the pretzels on the plate. There are 0 pretzels on the other plate. 0 counters show the pretzels. Zero shows the pretzels on the plate.

Directions: 1–2. Count the pretzels on the plate. Draw a counter for each pretzel. Circle the number of pretzels on the plate.

Differentiation Resource Book

INDEPENDENT WORK

Student Practice Book, pp. 9–10



Lesson 2-5

Additional Practice

Name _____

Review

1

CHALK CHALK

0 1 2 3 4 5 0 1 2 3 4 5

2

0 1 2 3 4 5 0 1 2 3 4 5

Review: You can tell how many birds are in the picture. There are 0 birds in the picture.

Directions: 1. How many pieces of chalk? Circle a number to show how many. **2.** How many books? Circle a number to show how many.

Student Practice Book

E Extend Thinking

WORKSTATIONS

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

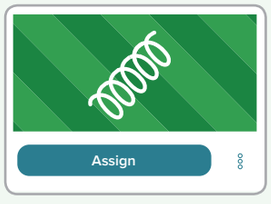
Use It! Application Station

Movement of Cars Students build car ramps and examine how different materials affect how the car moves.

GO ONLINE

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

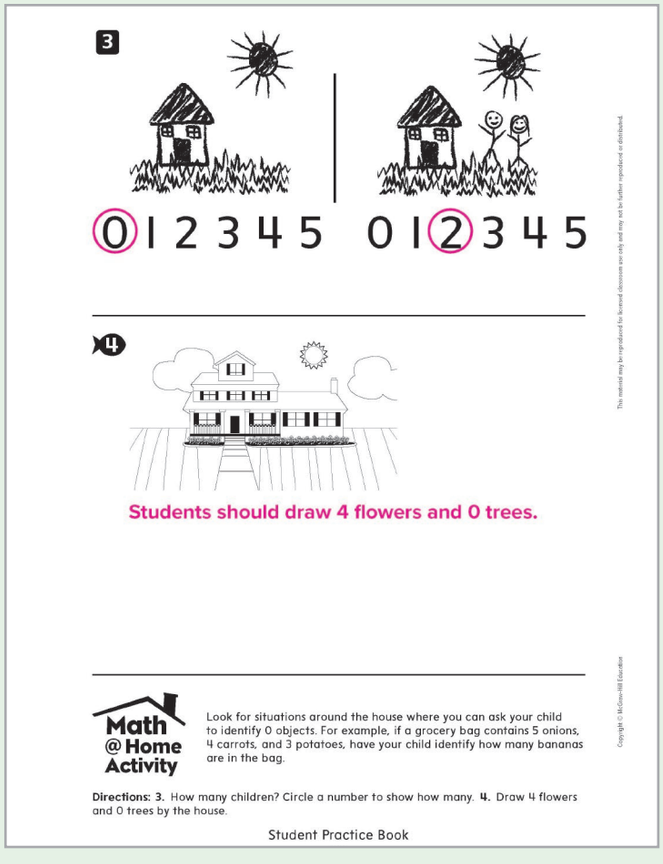


STEM Adventure

Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 9–10



3

0 1 2 3 4 5 0 1 2 3 4 5

4

Students should draw 4 flowers and 0 trees.

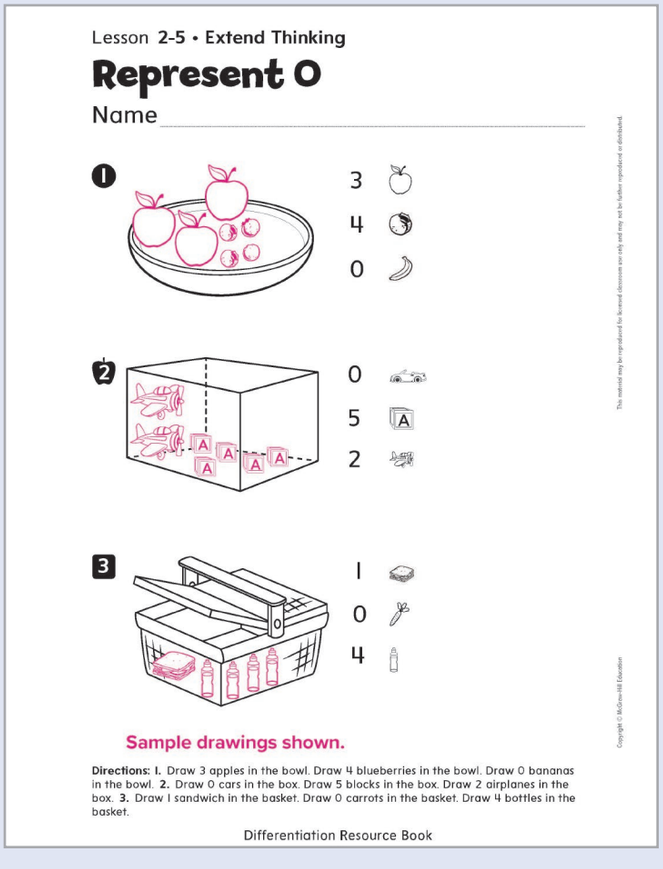
Math @ Home Activity

Look for situations around the house where you can ask your child to identify 0 objects. For example, if a grocery bag contains 5 onions, 4 carrots, and 3 potatoes, have your child identify how many bananas are in the bag.

Directions: 3. How many children? Circle a number to show how many. **4.** Draw 4 flowers and 0 trees by the house.

Student Practice Book

Differentiation Resource Book, p. 10



Lesson **2-5** • **Extend Thinking**

Represent 0

Name _____

1

3

4

0

2

0

5

2

3

1

0

4

Sample drawings shown.

Directions: 1. Draw 3 apples in the bowl. Draw 4 blueberries in the bowl. Draw 0 bananas in the bowl. **2.** Draw 0 cars in the box. Draw 5 blocks in the box. Draw 2 airplanes in the box. **3.** Draw 1 sandwich in the basket. Draw 0 carrots in the basket. Draw 4 bottles in the basket.

Differentiation Resource Book

LESSON **2-6**

Numbers to 5

Learning Targets

- I can identify the number that is one more.
- I can explain how to identify the number that is one more.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.B** Count to tell the number of objects.

◇ **K.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.

◇ **K.CC.B.4.c** Understand that each successive number name refers to a quantity that is one larger.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

Vocabulary

Math Terms	Academic Terms
one more	explain
	represent

Materials

The materials may be for any part of the lesson.

- connecting cubes
- counters
- *One More* Teaching Resource
- *Number Cards 0–10* Teaching Resource

Focus

Content Objective	Language Objective	SEL Objective
• Students identify numbers from 1 to 5 in sequence understanding that each successive number name is referring to an amount that is one larger.	• Students identify the next successive number to 5 when counting by stating the number. • Support cultivating conversation and optimizing output by participating in MLR8: Discussion Supports.	• Students practice 1-3 minutes of mindful meditation prior to mathematical work.

Coherence

Previous	Now	Next
• Students represented a number of objects in a group (Unit 2)	• Students understand that each number in the counting sequence represents a quantity one greater than the preceding number.	• Students identify equal groups of up to 5 objects (Unit 2). • Students understand the relationship in the counting sequence up to 10 (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students develop an understanding that each number said when counting represents one more.	• Students will build proficiency in counting to find one more in the counting sequence.	• Students show one more with manipulatives. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine
Would You Rather? 5–7 min

Build Fluency Students build their counting skills as they determine the amount in each box shown.

These prompts encourage students to talk about their reasoning:

- How did you count?
- Explain why you chose which group.

Purpose Students notice that there are different numbers of birds in each nest, possibly increasing by one more.

Notice and Wonder™

- What do you notice? What do you wonder?

Teaching Tip Encourage students to think about how many birds are in each nest and how each nest is different than the nest before.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about how each nest is showing one more bird.

- What do you notice about the number of birds in each nest?
- If there was another nest in the picture, how many birds do you think it would hold? How do you know?

Math is... Mindset

- How can you help yourself feel ready to learn?

SEL Self-Regulation: Manage Emotions

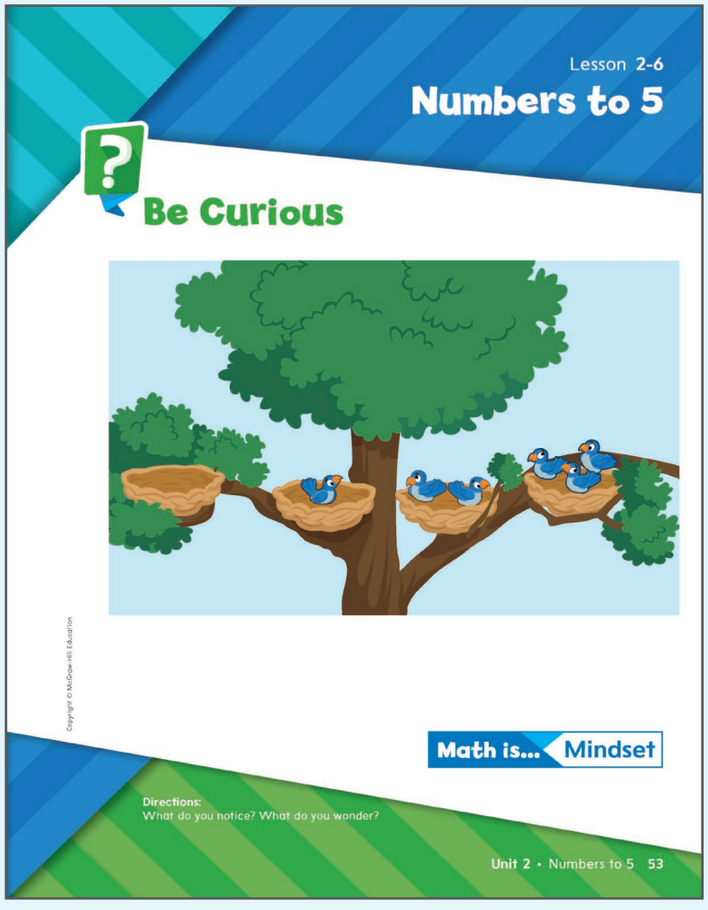
Before the Notice & Wonder routine, invite students to practice 1-3 minutes of mindful meditation to allow them to reset their emotions before they begin their work. Set a timer, and have students sit quietly with their eyes closed until the time is up. Choose a soft ring tone for the timer, so students are not alarmed as they transition from their meditation to noticing and wondering.

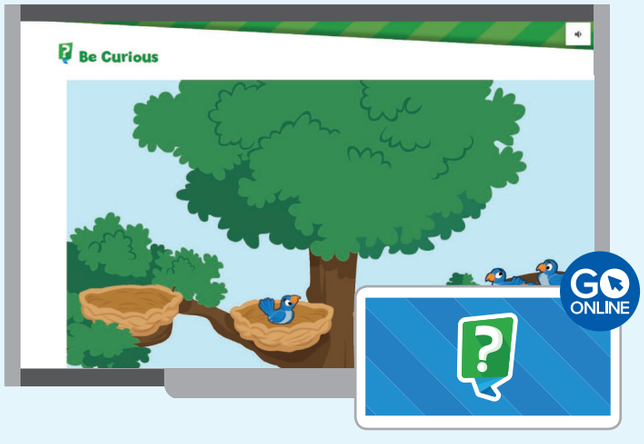
Transition to Explore & Develop

Ask questions that get students to think about how each nest shows one more bird.

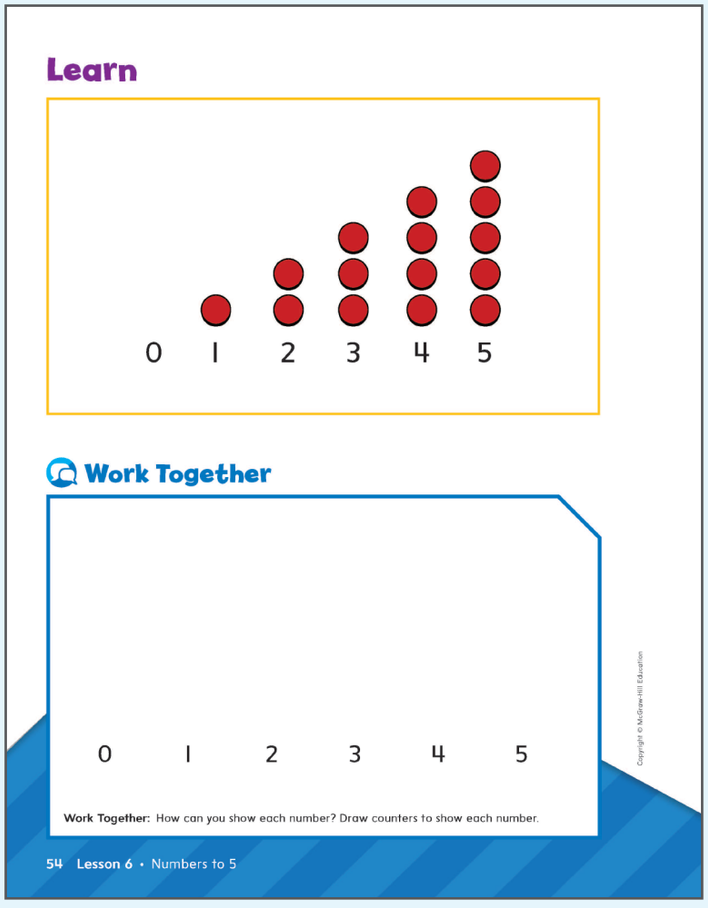
ETP Establish Goals to Focus Learning

- How do these birds show one more?





Explore & Develop 20 min



1 Pose the Problem

MLR Discussion Supports

Draw 3 birds in a nest. Ask, *How many birds are there?* Elicit counting. Draw a bird flying to the nest. Say, *1 more bird is flying to the nest. How many will there be?* Elicit the answer and write numeral 4 on the board. Say, *There will be 4.* Repeat with 5 birds.

Read the problem to students.

- Three birds are sitting in a nest. How many will there be if we add one more?

ETP Pose Purposeful Questions

- How many birds are in each nest?
- What is happening to the number of birds each time there is another nest?

2 Develop the Math

Choose the option that best meets your instructional goals.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How can you count to find one more?
- When counting, what do you know about each number you say?
- What does each number represent?

Key Takeaways

- Each number in the counting sequence represents a quantity one greater than the preceding number.
- When counting, each number said is one more.

Work Together

- How can you show each number? Draw counters to match each number.

Students draw to represent each number. Check that students draw the correct number of objects to match the given number.

Common Misconception Students may think that they need to show something above the 0, but remind students that 0 represents a group with no objects.

LOM Language of Math

Add the vocabulary card *one more* to the word wall. Invite a student volunteer to come to the front of the classroom. How many students? How can we show 1 more? Invite another student to stand beside the first student. Now how many students? How many will there be if we add 1 more? Repeat the activity until there are 5 students at the front of the classroom.

CHOOSE YOUR OPTION

Activity-Based Exploration

Students will explore the concept of *one more* when counting numbers 1 to 5.

Materials: counters (15 per student), *One More* Teaching Resource (1 per student)

Directions: Draw students' attention to the number 0. What number do you see? How can you use counters to show 0? Next, draw students' attention to the number 1. What number do you see here? How can you use counters to show 1? Have students place 1 counter above the number 1. How many will there be if we add one more? Have each student select 2 counters and place them above the number 2. How many? How many will there be if we add one more? Repeat with numbers to 5.

ETP Support Productive Struggle

- What do you notice about the counters?
- What does this tell you about numbers?

Math is... Thinking

- What does it mean to have 1 more?

Students think about what it means to have one more.

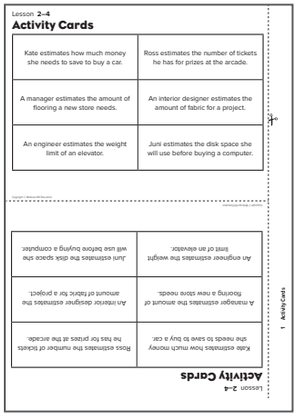
Activity Debrief: Have students discuss what they notice about the numbers.

- How can you find one more?

Have students revisit the Pose the Problem question and discuss answers.

- Three birds are sitting in a nest. How many will there be if we add one more?

The PDF of the Teaching Resource is available in the Digital Teacher Center.


Lesson 2–4
Activity Cards

Kate estimates how much money she needs to save to buy a car.	Ross estimates the number of tickets he has for prizes at the arcade.
A manager estimates the amount of flooring a new store needs.	An interior designer estimates the amount of fabric for a project.
An engineer estimates the weight limit of an elevator.	Juni estimates the disk space she will use before buying a computer.

Guided Exploration

Students begin to understand what is means to add *one more*.

Explain that we can count to find one more. Point above the 0 and ask students how many connecting cubes there are. Have students show 0 connecting cubes. Then, ask how many there will be if you add one more.

Continue with 1 through 5. Ask students how many connecting cubes are above each number and have them show that number with their cubes. Then ask how many there will be if you add one more. Explain that each number you say is one more than the one before.

ETP Facilitate Meaningful Discourse

- What does it mean to have one more?
- How can you show one more?
- **Think About It** What if we have 3 apples and add one more? How many will there be? Explain.

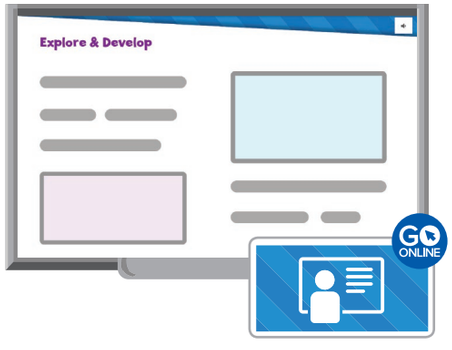
Math is... Thinking

- What does it mean to have one more?

Students think about what it means to have one more.

Have students work with a partner. Ask one student to show a number with connecting cubes, and have the other student show one more with their connecting cubes.

- How can you tell a friend how to show one more?



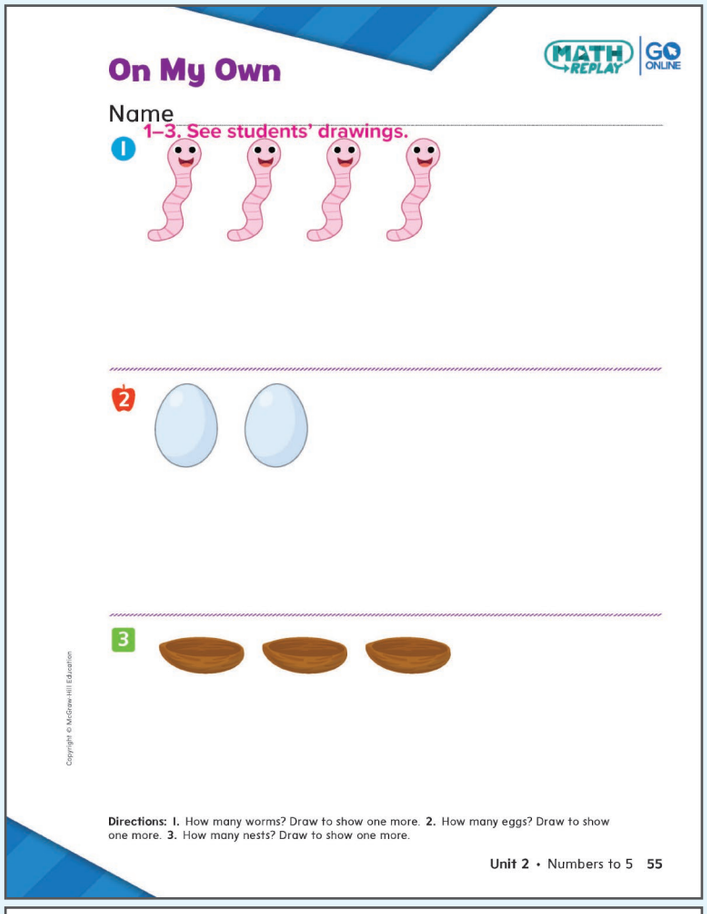
EL English Learner Scaffolds

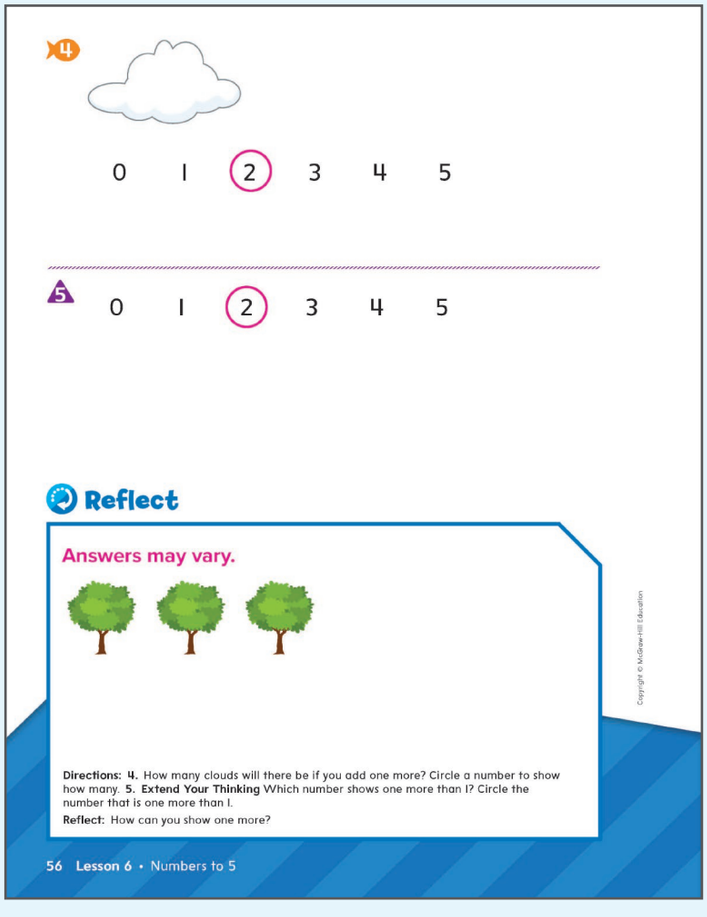
Entering/Emerging Support students with understanding the sentence, *If we have 1 more, there will be X.* Place 3 counters on a table. Say, *If we have 1 more, there will be 4.* Continue this with other counter amounts. To check comprehension, point to a group of counters and say, *If we have 1 more, there will be _____.* Pause and elicit the number to complete the sentence.

Developing/Expanding Support understanding using the sentence, *If we have 1 more, there will be X.* Place 3 counters on a table. Say, *If we have 1 more, there will be four.* Continue this with other counter amounts. To check comprehension, point to a group of counters and say, *If we have 1 more _____,* then pause and elicit a response from students.

Bridging/Reaching Give students opportunities to explain how many there will be if we have 1 more in a group of objects or counters. Point to a group of objects or counters and ask, *If we have one more, how many will there be?* Elicit a full sentence response using the structure, *If we have one more, there will be _____.*

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercise 1, ask students,

- How many worms? Draw to show one more.

For Exercise 2, ask students,

- How many eggs? Draw to show one more.

For Exercise 3, ask students,

- How many nests? Draw to show one more.

For Exercise 4, ask students,

- How many clouds will there be if you add one more? Circle a number to show how many.

For Exercise 5, ask students,

- What number shows one more than 1? Circle the number that is one more than 1.

Common Error: Exercises 4–5 Students may struggle to identify the number that is one more as they are just learning numerals and their quantities. Continue to provide simple drawings to represent quantities and the corresponding numbers. Have students draw one more object to show one more. Then have students count and write the number.

Practice Item Analysis

Item	DOK	Rigor
1–3	2	Conceptual Understanding
4	2	Procedural Skill & Fluency
5	3	Procedural Skill & Fluency

Reflect

Students complete the Reflect question.

- How can you show one more?

Ask students to share their reflections with their classmates.

Math is... Mindset

- What did you do that helped you feel ready to learn?

Students reflect on how they practiced self-regulation.

Learning Target

Ask students to reflect on the Learning Targets of the lesson.

- I can identify the number that is one more.
- I can explain how to identify the number that is one more.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

Exit Ticket Skill Tracker

Item	DOK	Skill	Standard
1	2	Count to 5	K.CC.B.4
2	2	Count to 5	K.CC.B.4
3	2	Count to 5	K.CC.B.4

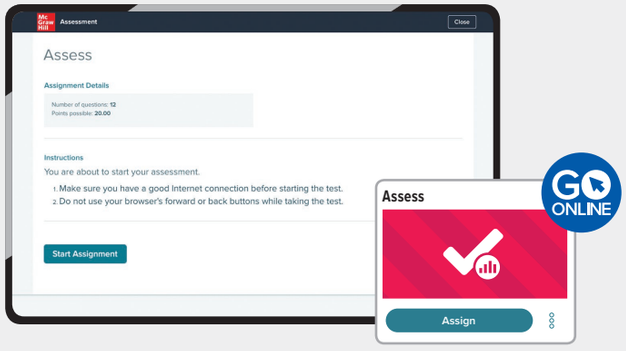
Data Use students' scores on the *Exit Ticket* to assign the differentiated resources available. When students complete the *Exit Ticket* in the digital workspace, their responses are auto-scored.

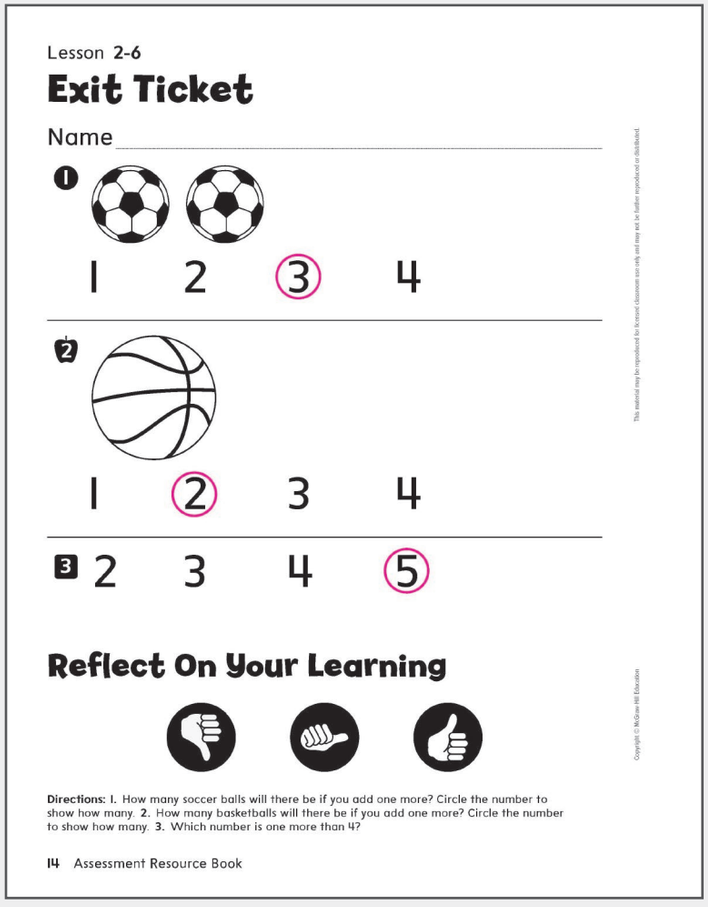
Exit Ticket Recommendations

If students score	Then have students do
3 of 3	Additional Practice or any of the B or E activities
2 or 3	*Take Another Look* or any of the B activities
1 or fewer of 3	Small Group Intervention or any of the R activities

Key for Differentiation

R Reinforce Understanding
B Build Proficiency
E Extend Thinking





Lesson 2-6

Exit Ticket

Name _____

1

1 2 3 4

2

1 2 3 4

3 2 3 4 5

Reflect On Your Learning

Directions: 1. How many soccer balls will there be if you add one more? Circle the number to show how many. **2.** How many basketballs will there be if you add one more? Circle the number to show how many. **3.** Which number is one more than 4?

14 Assessment Resource Book

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Show One More

Work with pairs of students. Use the *Number Cards 0–10* Teaching Resource to prepare cards for numbers 0–5. The first partner lays down the number card 0 and shows that many green cubes. The second partner lays down purple cubes to show 1 more than 0 and lays down the number card 1. The first partner lays down green cubes to show 1 more than the purple cubes, along with the number card 2. Continue until the pair reaches 3. Repeat, working up to 5.

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

Counting Clip Cards

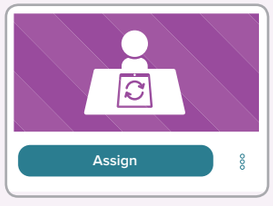
Students practice identifying numerals to describe set of up to 5 objects.

GO ONLINE

Take Another Look Lesson

Assign the interactive lesson to reinforce targeted skills.

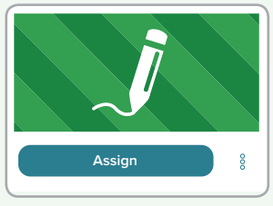
- Successive Numbers to 5



GO ONLINE

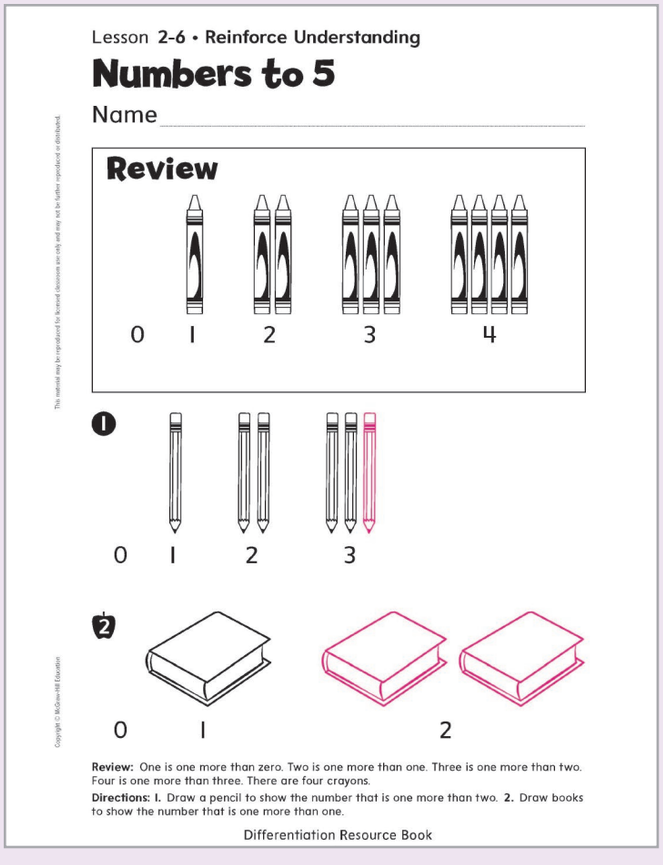
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Differentiation Resource Book, p. 11



Lesson 2-6 • Reinforce Understanding

Numbers to 5

Name _____

Review

0 1 2 3 4

1

0 1 2 3

2

0 1 2

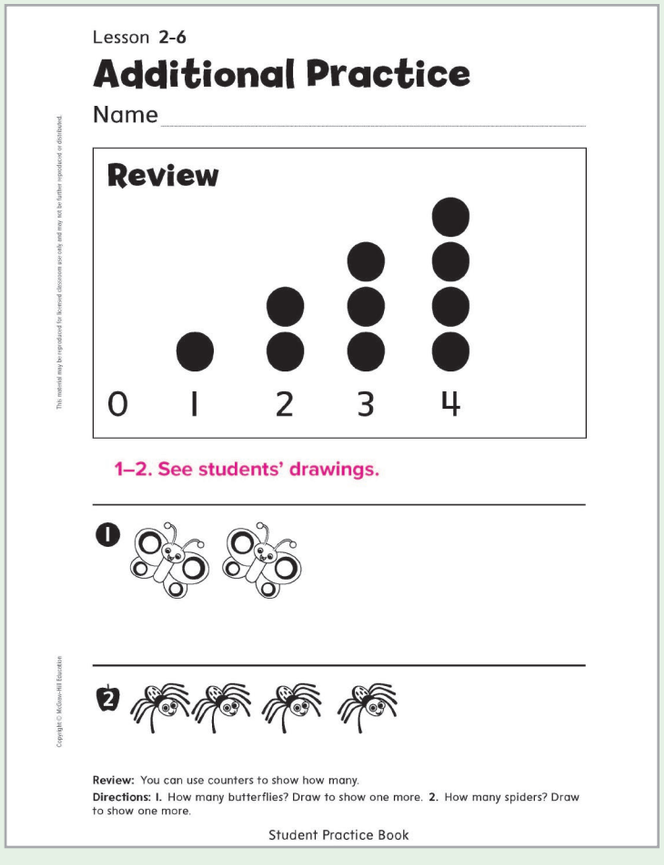
Review: One is one more than zero. Two is one more than one. Three is one more than two. Four is one more than three. There are four crayons.

Directions: 1. Draw a pencil to show the number that is one more than two. **2.** Draw books to show the number that is one more than one.

Differentiation Resource Book

INDEPENDENT WORK

Student Practice Book, pp. 11–12



Lesson 2-6

Additional Practice

Name _____

Review

0 1 2 3 4

1–2. See students' drawings.

1

2

Review: You can use counters to show how many.

Directions: 1. How many butterflies? Draw to show one more. **2.** How many spiders? Draw to show one more.

Student Practice Book

E Extend Thinking

WORKSTATIONS

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

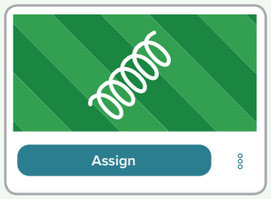
Use It! Application Station

A Farm Maze Students describe how to move in the maze to see all the animals.

GO ONLINE

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

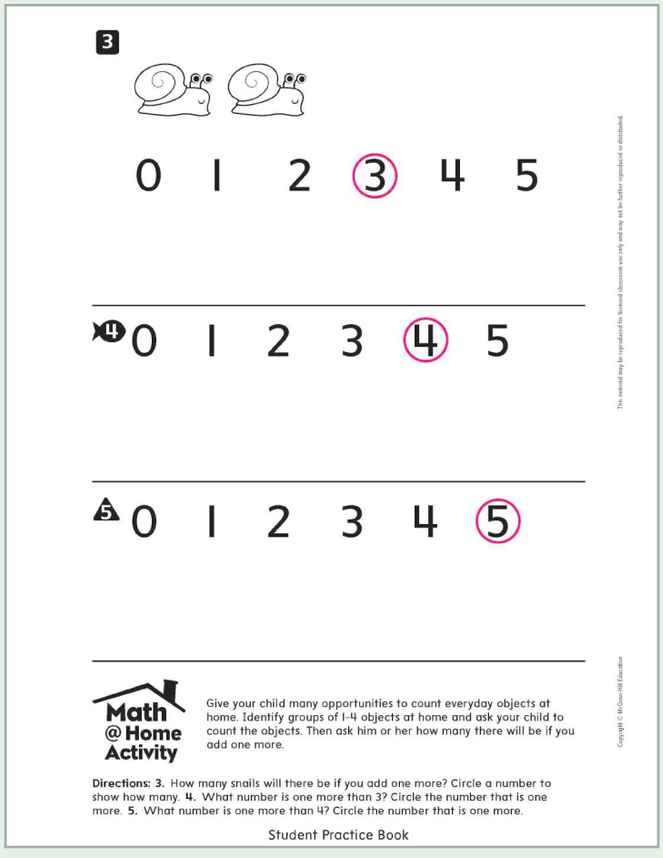


STEM Adventure

Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 11–12



3

0 1 2 3 4 5

4 0 1 2 3 4 5

5 0 1 2 3 4 5

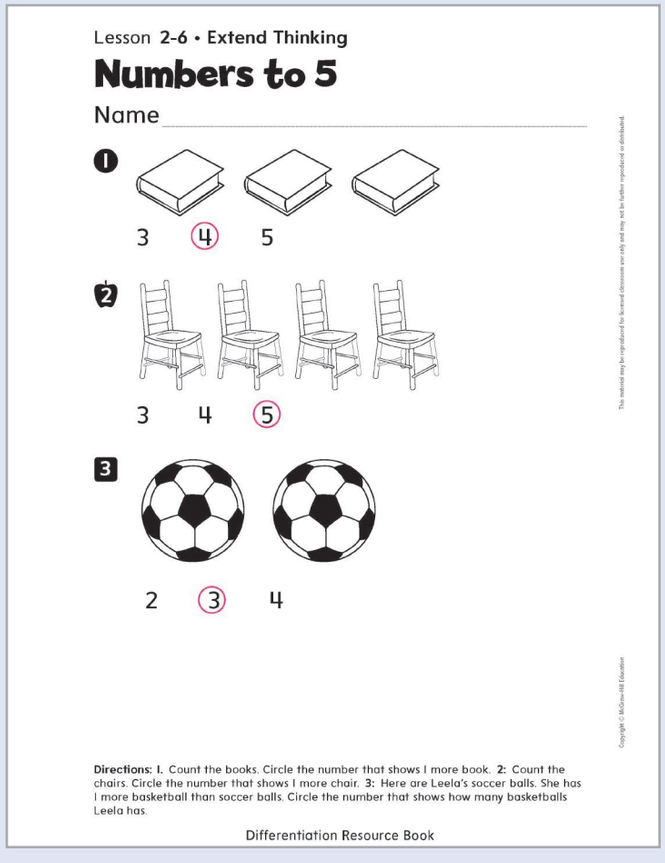
Math @ Home Activity

Give your child many opportunities to count everyday objects at home. Identify groups of 1–4 objects at home and ask your child to count the objects. Then ask him or her how many there will be if you add one more.

Directions: 3. How many snails will there be if you add one more? Circle a number to show how many. **4.** What number is one more than 3? Circle the number that is one more. **5.** What number is one more than 4? Circle the number that is one more.

Student Practice Book

Differentiation Resource Book, p. 12



Lesson 2-6 • Extend Thinking

Numbers to 5

Name _____

1

3 4 5

2

3 4 5

3

2 3 4

Directions: 1. Count the books. Circle the number that shows 1 more book. **2:** Count the chairs. Circle the number that shows 1 more chair. **3:** Here are Leela's soccer balls. She has 1 more basketball than soccer balls. Circle the number that shows how many basketballs Leela has.

Differentiation Resource Book

LESSON **2-7**

Equal Groups to 5

Learning Targets

- I can tell if groups are equal by matching the objects in the groups.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.C** Compare numbers.

◇ **K.CC.C.6** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.) Include groups with up to ten objects.

Math Practices and Processes

MPP Look for and make use of structure.

Vocabulary

Math Terms	Academic Terms
equal	compare
equal group	relate
matching	

Materials

The materials may be for any part of the lesson.

- connecting cubes

Focus

Content Objective	Language Objective	SEL Objective
• Students use one-to-one correspondence to determine whether groups are equal to each other.	• Students justify that two groups are equal by using one-to-one matching correspondence. • Support cultivating conversation and optimizing output by participating in MLR8: Discussion Supports.	• Students employ self-calming techniques that can be used to help manage reactions to potentially frustrating situations.

Coherence

Previous	Now	Next
• Students counted up to 5 objects (Unit 2).	• Students match objects in two groups to determine whether the groups are equal.	• Students compare groups of up to 5 objects using the words *greater than* and *less than* (Unit 2). • Students compare groups of up to 10 objects using the words *greater than* and *less than* (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students match objects in two groups by using one-to-one correspondence.	• Students match objects in two groups. *Procedural Skill and Fluency is not a targeted element of rigor for this standard.*	• Students apply one-to-one matching to solve problems. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine Would You Rather? 5–7 min

Build Fluency Students build their counting skills as they determine the amount in each box shown.

These prompts encourage students to talk about their reasoning:

- How did you count?
- Explain why you chose which group.

Purpose Students notice that there are two groups and that there are the same number in each group.

Notice and Wonder™

- What do you notice? What do you wonder?

Teaching Tip It may be helpful for students to place one color of connecting cube on each zebra and a different color of connecting cube on each giraffe. Students may then match one color of connecting cube to the other, seeing that the objects in one group matched the objects in the other group.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about grouping objects and are based on possible comments and questions students may make during the share out.

- How are the groups the same?
- How are the groups different?

Math is... Mindset

- How might you act when something is hard for you?

SEL Self-Regulation: Manage Reactions

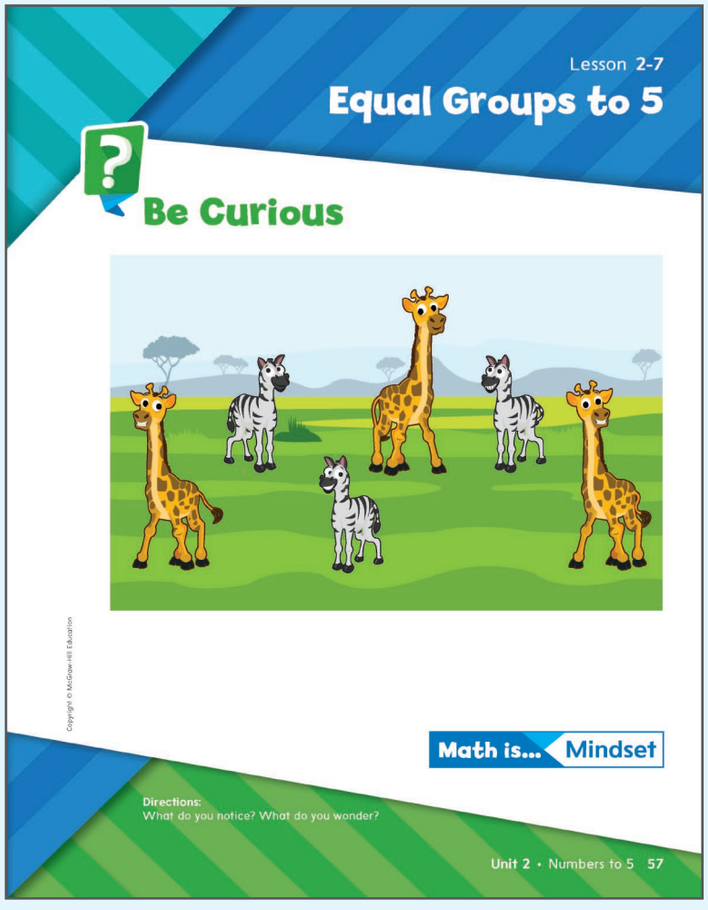
Provide opportunities for students to practice self-regulation. As you transition from the Notice & Wonder routine, brainstorm strategies that can help students express emotionally and behaviorally appropriate responses in times of frustration or disappointment. As students work with equal groups, invite them to practice deep-breathing techniques or take movement breaks when necessary.

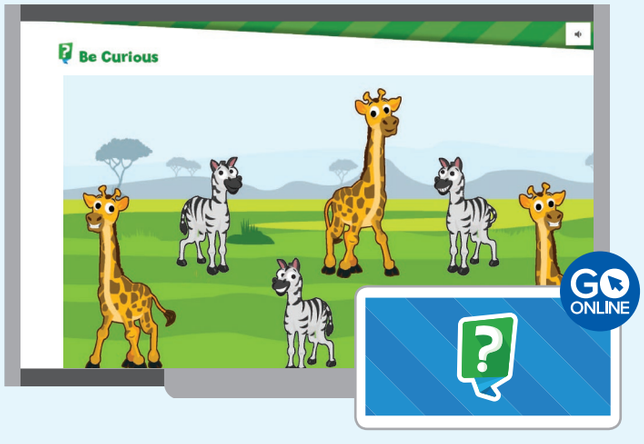
Transition to Explore & Develop

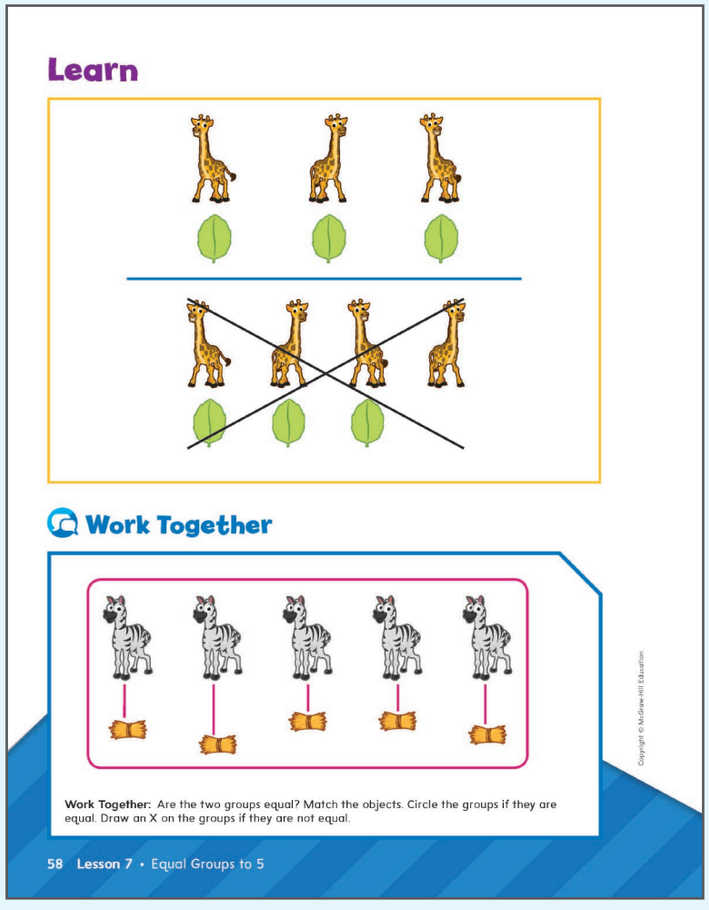
Ask questions that get students thinking about how many of each animal there is.

ETP Establish Goals to Focus Learning

- How many animals are in each group?







1 Pose the Problem

MLR Discussion Supports

Break the question into parts. Draw the giraffes and the leaves as they are shown. Act out and say, *Giraffes like to eat leaves*. Ask, *Can each giraffe eat one leaf? Let's match*. Draw a line from each giraffe to each leaf. Say, *They are equal. Each giraffe can eat one leaf.*

Read the problem to students.

- These giraffes like to eat leaves. Can each giraffe eat one leaf?

ETP Pose Purposeful Questions

- What could you do to see if each giraffe gets one leaf?

2 Develop the Math

Choose the option that best meets your instructional goals.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How can you tell if two groups are equal?
- How does matching help you know whether two groups are equal?
- How can matching help to find out if there is a leaf for each giraffe?

Key Takeaways

- The number of objects in two groups can be compared using one-to-one matching of objects. If each object in one group has a matching object in the second group, the number of objects in the two groups are equal.
- Two groups are equal if each object in one group matches an object in the other group.

Work Together

- Are the two groups equal? Match the objects. Circle the groups if they are equal. Draw an X on the groups if they are not equal.

Check that students match each zebra to a bale of hay to show that the groups are equal.

Common Misconception Some students may think that the zebra on the right has no matching bale because nothing is below the zebra. Remind students that the placement of the objects is not important; rather they need to match one zebra to one bale of hay.

LOM Language of Math

Add the vocabulary cards *equal, equal group*, and *matching* to the word wall. Ask four students to come to the front of the room. Hold 4 pencils in your hand. Ask if the group of students is equal to the group of pencils. Hand each student a pencil, showing that each pencil matches with a student. Matching shows that the two groups are equal.

CHOOSE YOUR OPTION

Activity-Based Exploration

Students explore one-to-one *matching* of objects to determine *equal groups*.

Materials: connecting cubes (1-5 per student)

Directions: Give each student a group of 1 to 5 connecting cubes. Have students find a classmate who has the same number of connecting cubes. Then have student pairs explain how they know they have the same number of connecting cubes. As students discuss their groups, introduce the term equal.

Repeat the activity, giving students a different number of cubes.

ETP Support Productive Struggle

- How is your group of cubes the same as your partner's group?
- How is your group of cubes different than your partner's group?
- How can you tell if you have the same number of cubes or a different number?

Come together as a group and have a pair of students demonstrate how to match objects one-to-one. Have a student take an object away from one of the groups.

- Is the number of objects in the two groups still equal?

Discuss that since there is one object leftover without a match, the groups are not the same. They are not equal.

Math is... Structure

- How does matching help you find equal groups?

Students consider how mathcing objects in two groups show if the groups are equal.

Have 5 students come to the front of the classroom. Line them up into a group of 2 and a group of 3, with one student standing directly across from another.

- Are these groups equal? Who can make the groups equal?

Have another student join the group of 2 to make equal groups.

Activity Debrief: Discuss how matching can show if two groups are equal.

Have students revisit the Pose the Problem question and discuss answers.

- Can each giraffe eat one leaf?

Guided Exploration

Students match objects in two groups to determine whether the number of objects in one group is equal to the number of objects in the other group.

Show that each giraffe matches with a leaf, so the number in each group is the same. It can also be said that the number of giraffes is equal to the number of leaves.

Then, match the different numbers of giraffes and leaves. Since there is not a match for each object, the number of giraffes is not equal to the number of leaves.

ETP Facilitate Meaningful Discourse

- Let's count the giraffes. How many giraffes are there?
- Let's count the leaves. How many leaves are there?
- Do you think each giraffe can have one leaf?
- How can we find out if each giraffe can have one leaf?
- What does it mean if two groups are equal?
- **Think About It:** What does it mean if you match objects in two groups and have objects left over?

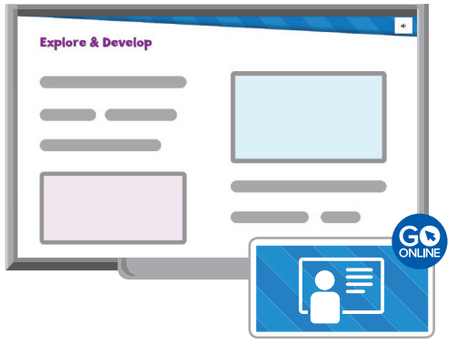
Math is... Structure

- How can you find equal groups?

Students consider how matching objects in two groups show if the groups are equal.

Have students work with a partner to find and show groups that are equal and groups that are not equal.

- What can you do to see if two groups are equal?



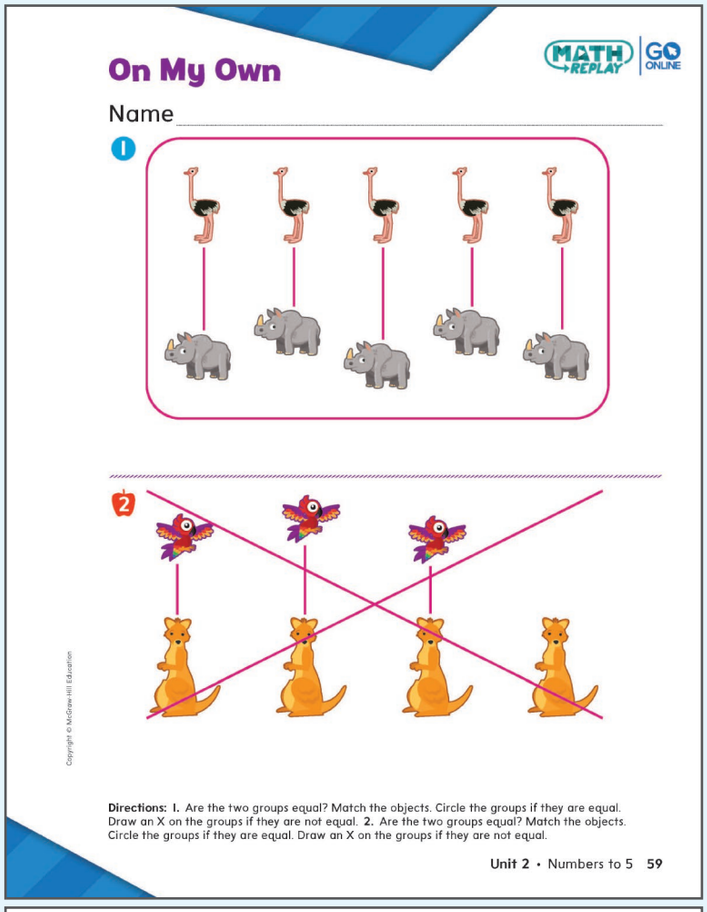
EL English Learner Scaffolds

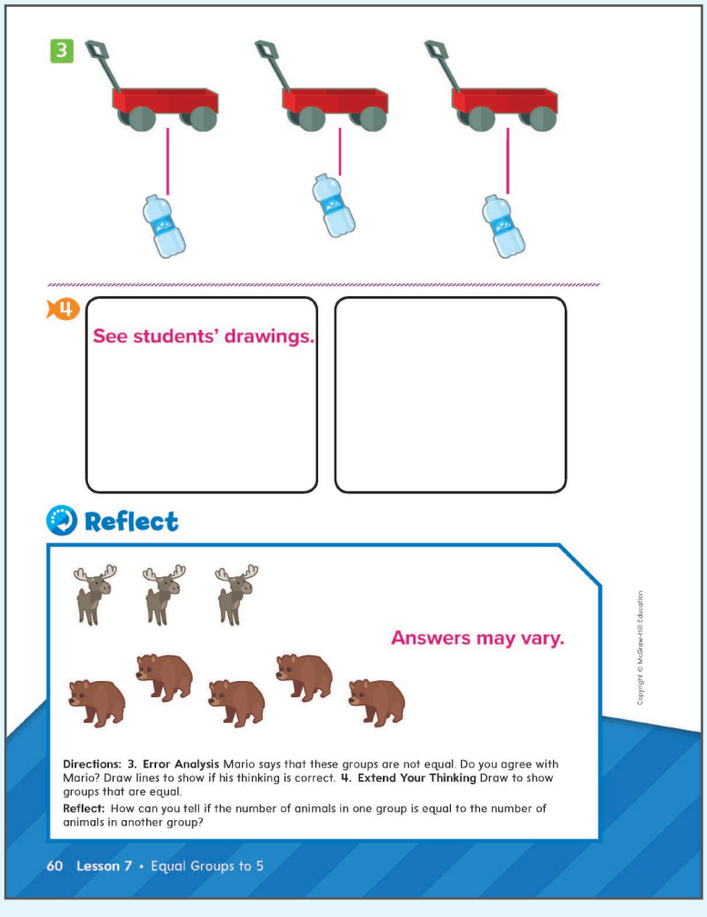
Entering/Emerging Support students with understanding the question, *How can we find tell if two groups are equal/the same?* Display two sets of 5 counters. Demonstrate matching each counter in each group. Repeat with other groups. To check comprehension ask, *How can we find tell if the groups are equal/the same?* Elicit that the students match the counters.

Developing/Expanding Support students with understanding the question, *How can we find tell if two groups are equal/the same?* Display two sets of 5 counters. Demonstrate matching each counter in one group to a counter in the other group. Continue with other groups of counters. Elicit that the students match the counters to show they are equal and say, *by matching*.

Bridging/Reaching Give students opportunities to explain how we can find out/tell if two groups are equal/the same. Place two groups of counters with the same number. Ask *How can we find out/tell if two groups are equal/the same?* Elicit a full sentence response explaining and showing that the counters can be matched.

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercises 1–2, ask students,

- Are the two groups equal? Match objects. Circle the groups if they are equal. Draw an X on the groups if they are not equal.

For Exercise 3, ask students,

- Mario says that these groups are not equal. Do you agree with Mario? Draw lines to show if his thinking is correct.

For Exercise 4, tell students,

- Draw to show groups that are equal.

Common Error: Exercises 1–5 Some students may match two objects in one group to a single object in the second group. These students may benefit from using counters or other counting manipulatives to create the groups and then matching the counters one-to-one,

Practice Item Analysis

Item	DOK	Rigor
1–3	2	Conceptual Understanding
4	3	Application

Reflect

Students complete the Reflect question.

- How can you tell if the number of animals in one group is equal to the number of animals in another group?

Ask students to share their reflections with their classmates.

Math is... Mindset

- What did you do that helped you work through a hard problem?

Students reflect on how they practiced self-regulation.

Learning Target

Ask students to reflect on the Learning Target of the lesson.

- I can tell if groups are equal by matching the objects in the groups.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

Exit Ticket Skill Tracker

Item	DOK	Skill	Standard
1	2	Equal groups to 5	
2	2	Equal groups to 5	K.CC.C.6
3	2	Equal groups to 5	K.CC.C.6

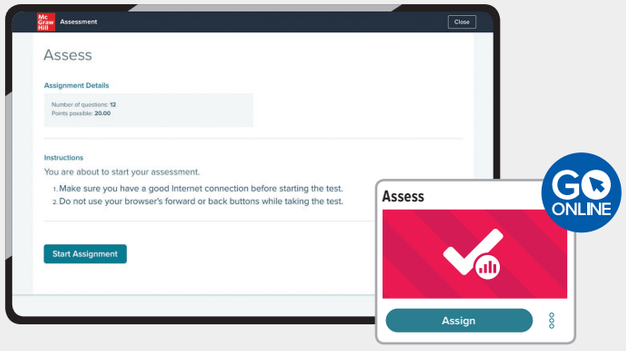
Data Use students' scores on the *Exit Ticket* to assign the differentiated resources available. When students complete the *Exit Ticket* in the digital workspace, their responses are auto-scored.

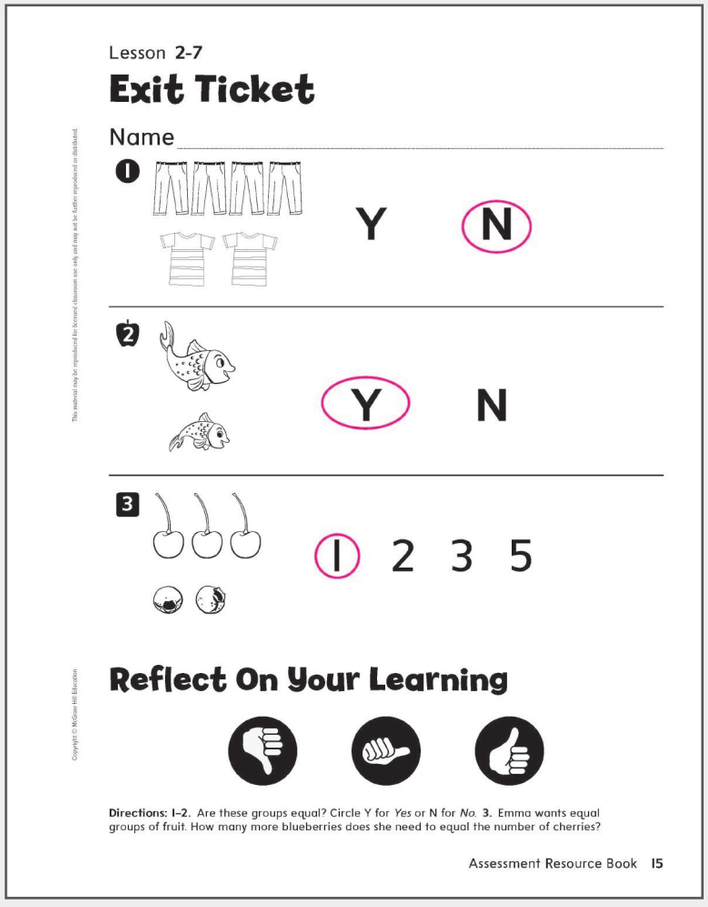
Exit Ticket Recommendations

If students score	Then have students do
3 of 3	Additional Practice or any of the B or E activities
2 or 3	*Take Another Look* or any of the B activities
1 or fewer of 3	Small Group Intervention or any of the R activities

Key for Differentiation

R Reinforce Understanding
B Build Proficiency
E Extend Thinking





Lesson 2-7

Exit Ticket

Name _____

1 Y N

2 Y N

3 1 2 3 5

Reflect On Your Learning

Directions: 1–2. Are these groups equal? Circle Y for *Yes* or N for *No*. **3.** Emma wants equal groups of fruit. How many more blueberries does she need to equal the number of cherries?

Assessment Resource Book 15

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Match and Compare

Work with groups of 3 students. One student secretly chooses 1–3 purple cubes. Another student secretly chooses 1–3 green cubes. They put them on the table. The 3rd student matches the cubes one-to-one. Students decide and explain whether the groups show equal numbers of objects. Repeat with up to 5 purple and green cubes.

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

Compare Concentration

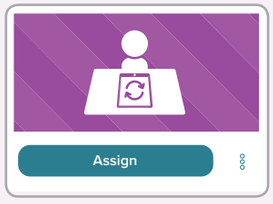
Students match groups of objects.

GO ONLINE

Take Another Look Lesson

Assign the interactive lesson to reinforce targeted skills.

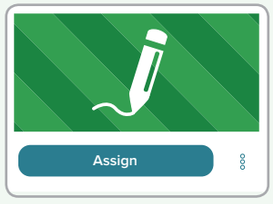
- Same or Different with Two Groups



GO ONLINE

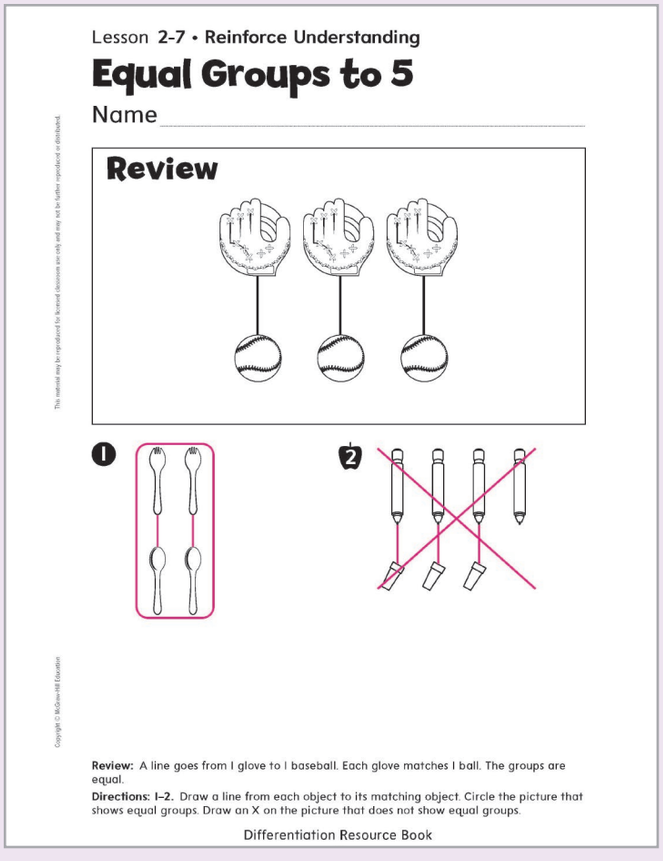
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Differentiation Resource Book, p. 13



Lesson 2-7 • Reinforce Understanding

Equal Groups to 5

Name _____

Review

1

2

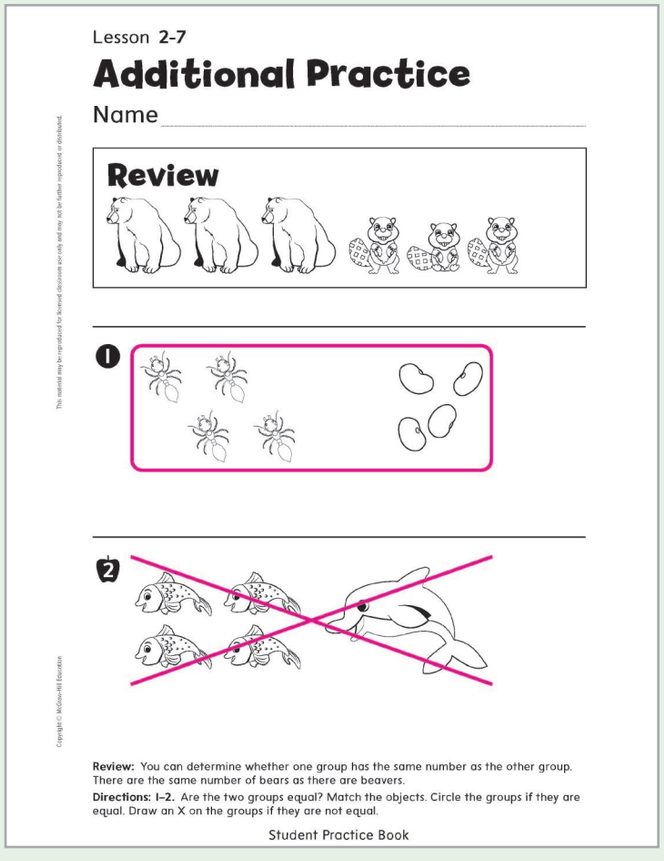
Review: A line goes from 1 glove to 1 baseball. Each glove matches 1 ball. The groups are equal.

Directions: 1–2. Draw a line from each object to its matching object. Circle the picture that shows equal groups. Draw an X on the picture that does not show equal groups.

Differentiation Resource Book

INDEPENDENT WORK

Student Practice Book, pp. 13–14



Lesson 2-7

Additional Practice

Name _____

Review

1

2

Review: You can determine whether one group has the same number as the other group. There are the same number of bears as there are beavers.

Directions: 1–2. Are the two groups equal? Match the objects. Circle the groups if they are equal. Draw an X on the groups if they are not equal.

Student Practice Book

E Extend Thinking

WORKSTATIONS

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

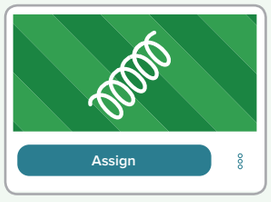
Use It! Application Station

Musical Chairs Students play musical chairs, counting the number of students and chairs.

GO ONLINE

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

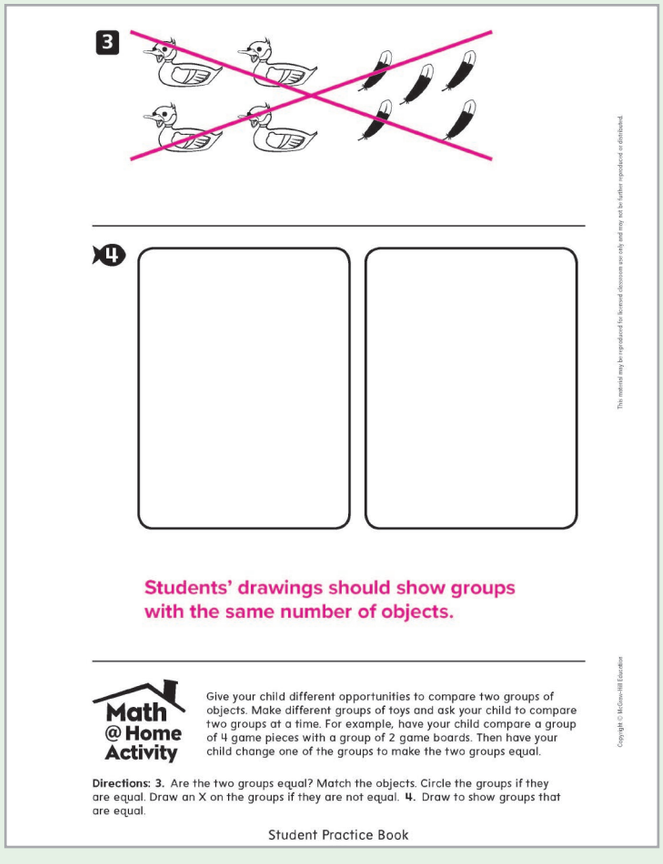


STEM Adventure

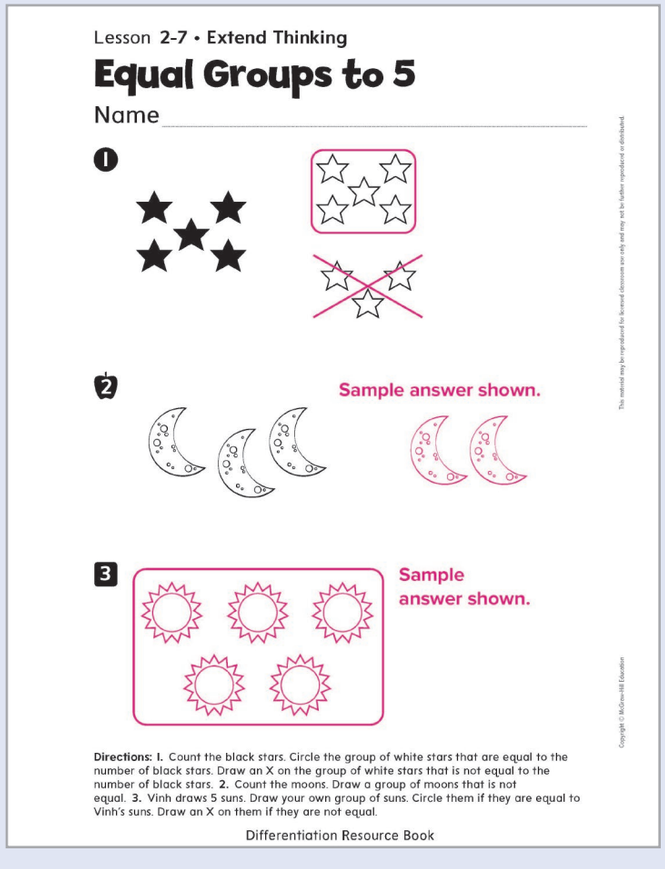
Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 13–14



Differentiation Resource Book, p. 14



LESSON **2-8**

Greater Than and Less Than

Learning Targets

- I can use matching to determine if the number of objects in one group is greater than or less than the number of objects in another group.
- I can explain how to use matching to determine if the number of objects in one group is greater than or less than the number of objects in another group.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.C** Compare numbers.

◇ **K.CC.C.6** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

Vocabulary

Math Terms	Academic Terms
fewer	compare
greater than	describe
less than	
more	

Materials

The materials may be for any part of the lesson.

- bags
- counters
- various classroom objects

Focus

Content Objective	Language Objective	SEL Objective
• Students use one-to-one correspondence to determine whether one group is greater than or less than the other group.	• Students explain which group is greater than or less than by using one-to-one matching correspondence. • Support cultivating conversation and optimizing output by participating in MLR4: Information Gap.	• Students identify a problem and execute the steps necessary to solve the problem.

Coherence

Previous	Now	Next
• Students matched objects to determine if two groups were equal (Unit 2).	• Students match objects in two groups to determine which group is greater than the other group.	• Students compare the number of objects in two groups up to 5 to determine which group is greater (Unit 2). • Students compare the number of objects in two groups up to 10 to determine which group is greater than the other group (Unit 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students match objects in two groups to determine which group has a greater number of objects.	• Students understand how to determine which group is *greater than* another group by matching objects. *Procedural Skill and Fluency is not a targeted element of rigor for this standard.*	• Students are expected to apply one-to-one matching to determine which group is greater than another group. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine
Would You Rather? 5–7 min

Build Fluency Students build their counting skills as they determine the amount in each box shown.

These prompts encourage students to talk about their reasoning:

- How did you count?
- Explain why you chose which group.

Purpose Students will notice that there are three different groups of animals and that there is a different amount in each group.

Notice and Wonder™

- What question can you ask about the picture?

Teaching Tip Guide students to notice that the animals are separated into groups. Encourage them to think about the animals within each group, and then begin to compare all the groups.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about comparing the groups according to the number of animals in each group.

- How are the groups the same?
- How are the groups different?
- Are there more kangaroos or lizards?
- Are there more koalas or kangaroos?

Math is... Mindset

- What steps might you follow to help you solve a problem?

SEL Responsible Decision-Making: Problem Solving

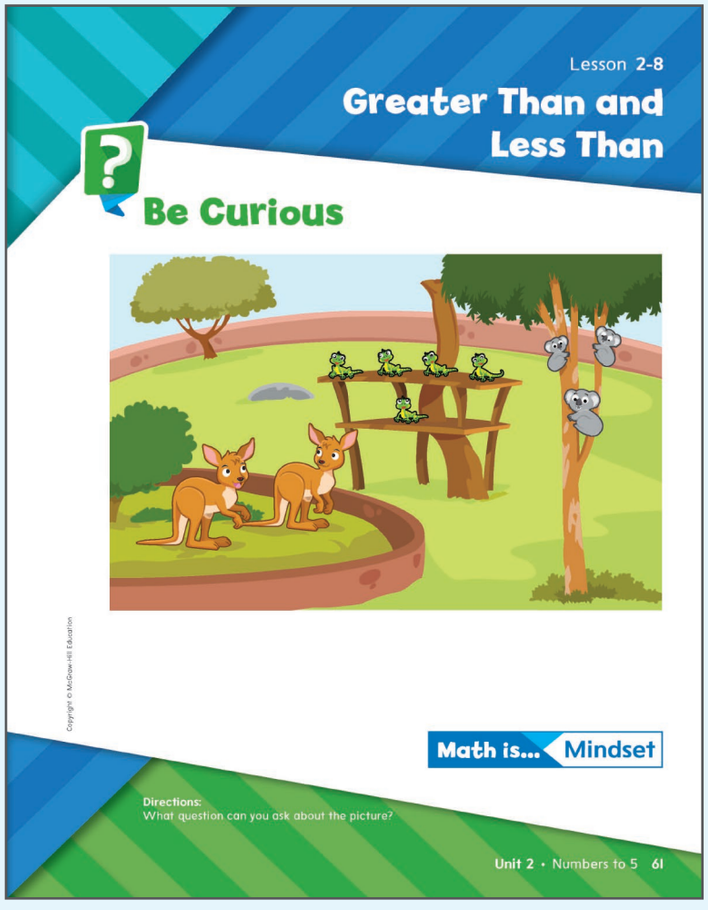
Help students develop responsible decision-making skills by providing them opportunities to practice problem solving. As students begin the Notice & Wonder routine, encourage them to first identify the problem, then think critically about what they will do to solve the problem. As you come together to collaboratively discuss the Notice & Wonder, you can invite students to share their problem-solving processes.

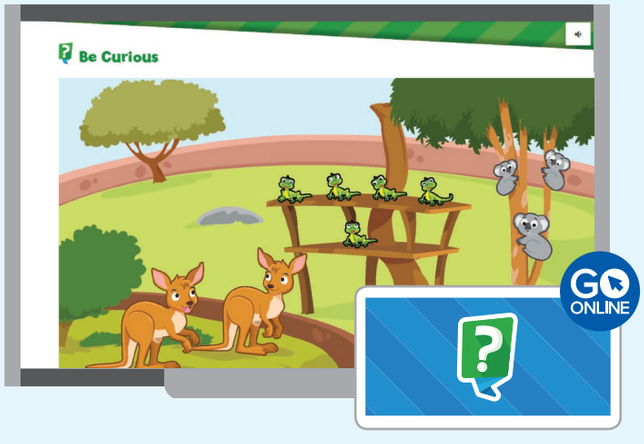
Transition to Explore & Develop

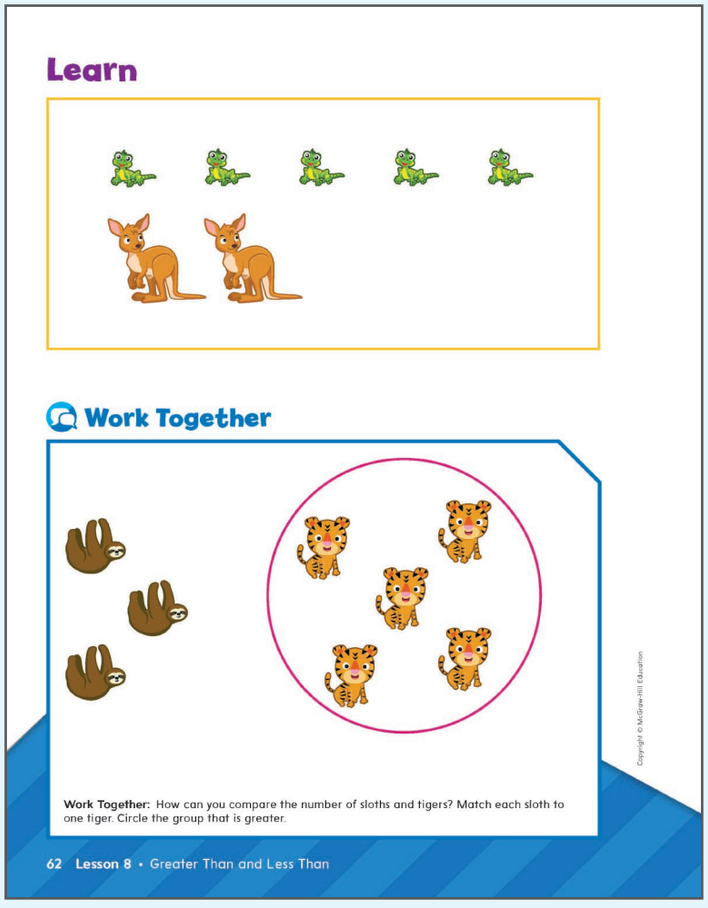
Ask questions that get students to think about how groups can be compared by matching the objects in the groups.

ETP Establish Goals to Focus Learning

- How can you compare groups of objects?
- Does each monkey match a koala?







1 Pose the Problem

Read the problem to students.

- Look at the lizards and kangaroos. How does the group of lizards compare to the group of kangaroos?

ETP Pose Purposeful Questions

- Does each lizard match to one kangaroo?

2 Develop the Math

Choose the option that best meets your instructional goals.

MLR Information Gap

Draw animals on notecards, drawing one animal on each card. Make it so there are the same number of some animals. No number exceeds 5 (5 zebras, 5 elephants, 3 birds, 2 horses). Give each student a notecard. Ask different groups of animals to gather. Have students show thumbs up, thumbs down or the OK hand signal to show if the group is equal, more or fewer.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How can you compare two groups?
- How does matching help to compare two groups?
- How can you describe the group with "leftovers"?
- How can you describe the group with fewer?

Key Takeaways

- The number of objects in two groups can be compared using one-to-one matching of objects. If each object in one group does not have a matching object in the second group, the number of objects in the two groups are not equal. The group with unmatched objects has more objects. The other group has fewer objects.
- Groups can be compared by matching objects. If one group has left overs, it has more objects, and the other group has fewer objects.

Work Together

- How can you compare the number of sloths and tigers? Match each sloth to one tiger. Circle the group that is greater.

Students circle the group that is greater. Check that students match one sloth to one tiger.

Common Misconception Students may struggle with the respective vocabulary terms. Emphasize the meaning by continuously asking questions such as *Which is greater? How do you know?* or *Which has less? How do you know?*

LOM Language of Math

Add the vocabulary cards *fewer* and *more* to the word wall. To build students' active math vocabulary, have them use *more* and *fewer* to summarize their findings after each exercise. For example, students might say aloud, "The group of ____ has more than the group of ____."

CHOOSE YOUR OPTION

Activity-Based Exploration

Students explore one-to-one matching of objects to determine if a group is greater than or less than another group.

Materials: Prepare a bag for each student that contains 5 or less objects. The number of objects in each bag should vary.

Directions: Have students work with a partner to compare their objects. Then have students switch partners to complete the activity multiple times.

ETP Support Productive Struggle

- How are your objects the same?
- How are they different?
- How many are there of each object?

After students have finished, encourage them to share their findings. What did you notice about the number of objects in the bags? Choose two bags and discuss the contents using the terms greater than and less than.

Math is... Thinking

- What can you say about a group that has more than another group?

Students think about how to describe a group that has more objects than another group.

Have 5 students come to the front of the classroom. Line them up into a group of 2 and a group of 3, with one student standing directly across from another. Which group is greater than? Which group is less than?

Activity Debrief: Discuss how matching and counting objects in two groups can tell which group is greater than or less than the other group.

Have students revisit the Pose the Problem question and discuss answers.

- How does the group of monkeys compare to the group of elephants?

Guided Exploration

Students begin to understand that groups can be compared by matching the objects in each group. The groups can then be described by using the words *greater than* and *less than*.

Match the animals in one group with the animals in the other group. Guide students in discovering that the group with leftovers is the group that has more. Explain that a group that has *more* can be described as *greater than* the other group.

Ask students to identify the group that has fewer animals by matching the animals in each group. Discuss that a group with *fewer* can be described as a group that is *less than* another group.

ETP Facilitate Meaningful Discourse

- How can you compare the number of animals in one group to the number of animals in another group?
- Does each animal in one group match with an animal in the other group? Is the number of animals in one group equal to the number of animals in the other group?
- When the number of animals in one group does not match the number of animals in another group, what can you say about the groups?
- How can you describe a group that has more?
- How can you describe a group that has fewer?

Math is... Thinking

- What can you say about a group that has more than another group?

Students think about how to describe a group that has more objects than another group.

Have students work with a partner to match some items from their desks or tables. Encourage them to use the words *greater than* and *less than* to describe the two groups.

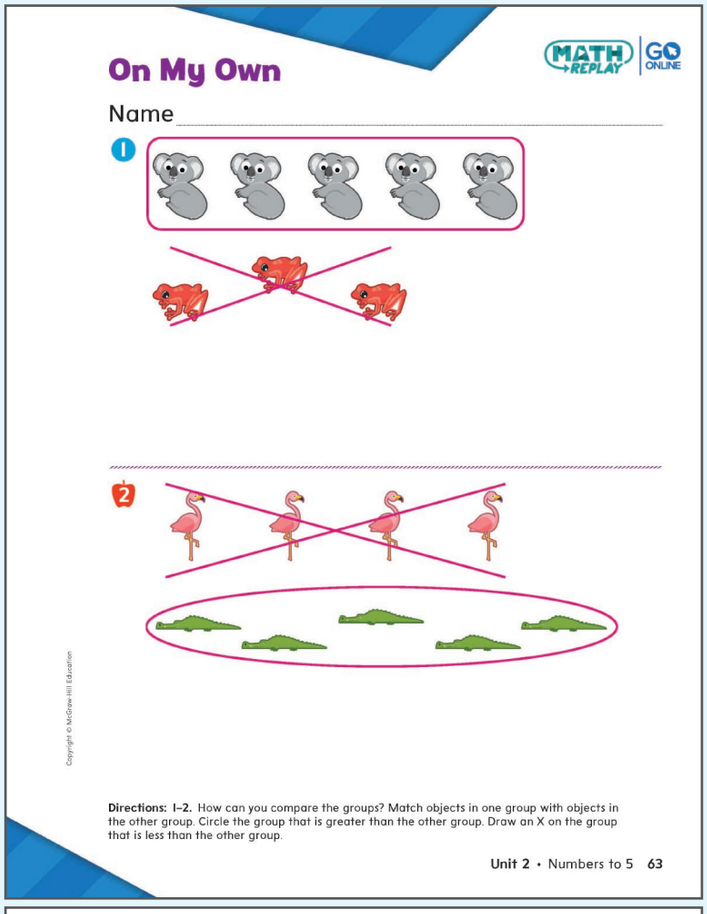
EL English Learner Scaffolds

Entering/Emerging Support students with understanding the question, *How can we compare the number of pencils to books?* Place 4 books and 4 pencils on a table. Ask, *How can we compare the number of pencils to books?* Demonstrate the answer by matching each book to each pencil. Say, *We can compare the groups by matching.* Continue this with other groups of objects.

Developing/Expanding Support students with understanding the question, *How can we compare the number of pencils to books?* Display 4 books and 4 pencils. Demonstrate the answer by matching each book to each pencil. Continue with other groups. To check comprehension, ask, *How can we compare these groups?* Elicit that the students say, *by matching*.

Bridging/Reaching Give students opportunities to explain how to compare. Place two groups of objects with the same number. Ask, *How can we compare these groups?* Elicit a full sentence response explaining and showing that the objects can be compared by matching. *We can compare them by matching the objects.*

Practice & Reflect 10 min


On My Own

MATH REPLAY GO ONLINE

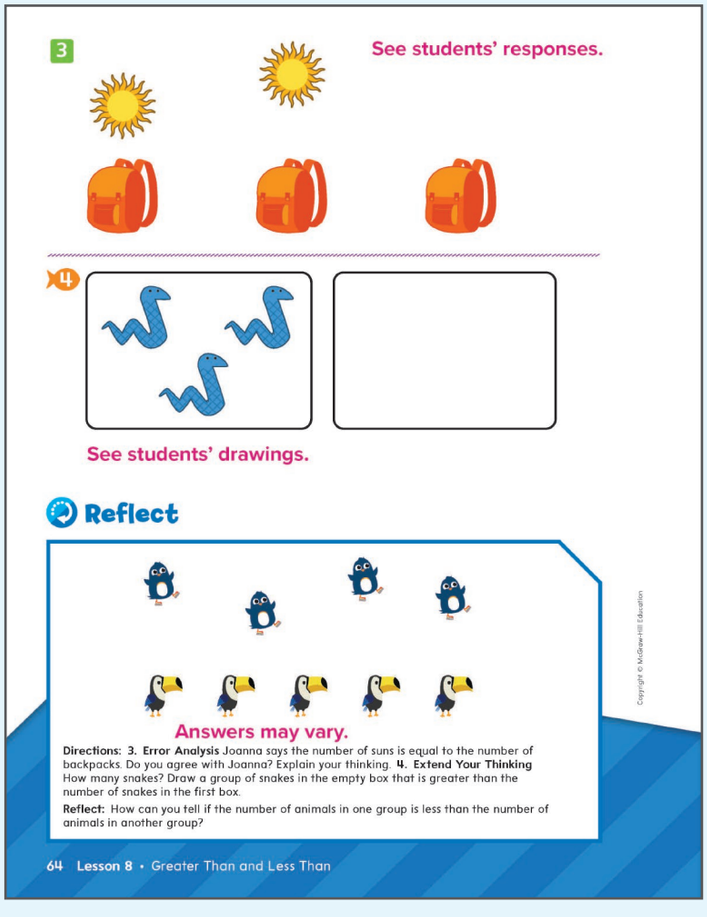
Name _____

1

2

Directions: 1–2. How can you compare the groups? Match objects in one group with objects in the other group. Circle the group that is greater than the other group. Draw an X on the group that is less than the other group.

Unit 2 • Numbers to 5 63


3

See students' responses.

4

See students' drawings.

Reflect

Answers may vary.

Directions: 3. Error Analysis Joanna says the number of suns is equal to the number of backpacks. Do you agree with Joanna? Explain your thinking. 4. Extend Your Thinking How many snakes? Draw a group of snakes in the empty box that is greater than the number of snakes in the first box.

Reflect: How can you tell if the number of animals in one group is less than the number of animals in another group?

64 Lesson 8 • Greater Than and Less Than

Practice

ETP Build Fluency from Understanding

For Exercises 1–2, ask students,

- How can you compare the groups? Match objects in one group with objects in the other group. Circle the group that is greater than the other group. Draw an X on the group that is less than the other group.

For Exercise 3, ask students,

- Joanna says the number of suns is equal to the number of backpacks. Do you agree with Joanna? Explain your thinking.

For Exercise 4, ask students,

- How many snakes? Draw a group of snakes in the empty box that is greater than the number of snakes in the first box.

Common Error: Exercises 1–5 Students may match one object in one group to two objects in the other group. Have students represent each group with a connecting cube and then have them match the cubes one-to-one to verify which group is greater than or less than.

Practice Item Analysis

Item	DOK	Rigor
1–3	2	Conceptual Understanding
4	3	Application

Reflect

Students complete the Reflect question.

- How can you tell if the number of animals in one group is less than the number of animals in another group?

Ask students to share their reflections with their classmates.

Math is... Mindset

- What choices did you make that helped you solve a problem?

Students reflect on how they practiced responsible decision-making.

Learning Targets

Ask students to reflect on the Learning Targets of the lesson.

- I can use matching to determine if the number of objects in one group is greater than or less than the number of objects in another group.
- I can explain how to use matching to determine if the number of objects in one group is greater than or less than the number of objects in another group.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

Assign the On My Own practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Exit Ticket Formative Assessment

The *Exit Ticket* assesses students' understanding of lesson concepts.

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.

Exit Ticket Skill Tracker

Item	DOK	Skill	Standard
1	2	Compare numbers to 5	K.CC.C.6
2	1	Compare numbers to 5	K.CC.C.6
3	1	Compare numbers to 5	K.CC.C.6

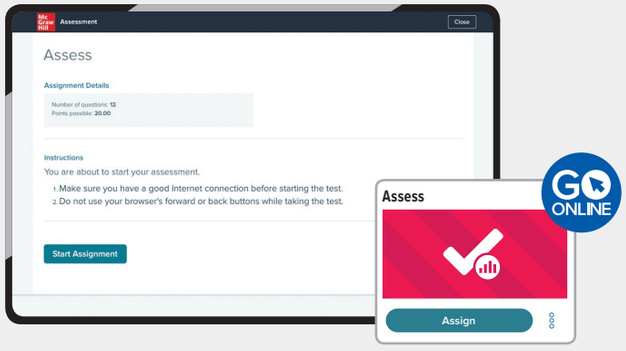
Data Use students' scores on the *Exit Ticket* to assign the differentiated resources available. When students complete the *Exit Ticket* in the digital workspace, their responses are auto-scored.

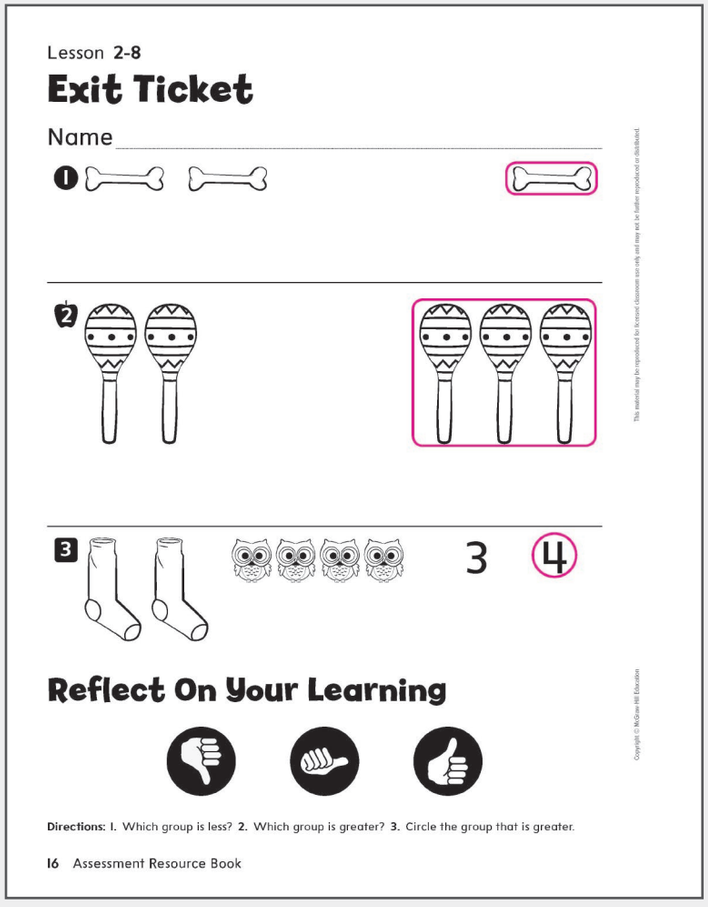
Exit Ticket Recommendations

If students score	Then have students do
3 of 3	Additional Practice or any of the B or E activities
2 or 3	*Take Another Look* or any of the B activities
1 or fewer of 3	Small Group Intervention or any of the R activities

Key for Differentiation

R Reinforce Understanding
B Build Proficiency
E Extend Thinking





Lesson 2-8

Exit Ticket

Name _____

1

2

3

3 4

Reflect On Your Learning

Directions: 1. Which group is less? 2. Which group is greater? 3. Circle the group that is greater.

16 Assessment Resource Book

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Counting Counters

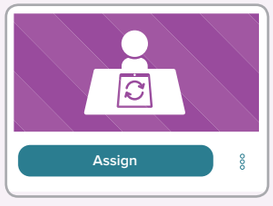
Work with students in pairs. Each student secretly puts 1–3 counters under a piece of paper. They lift the paper and count the groups. Then have students make a comparison statement using *greater than*, *less than*, or *equal to*. If students are struggling to compare, suggest matching the counters one to one. After several rounds, students play with up to 5 counters.

GO ONLINE

Take Another Look Lesson

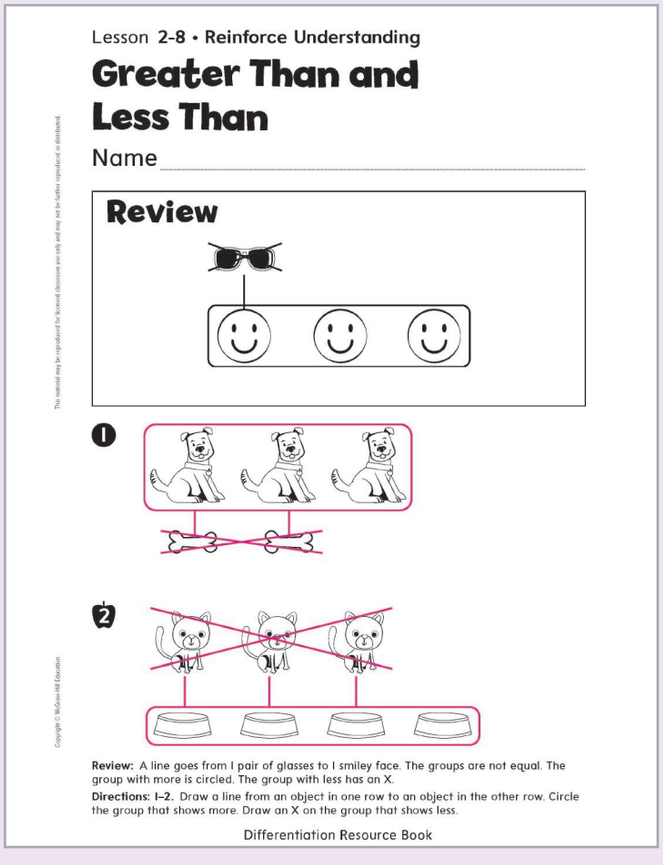
Assign the interactive lesson to reinforce targeted skills.

- Less than, Greater than or Equal to 5



INDEPENDENT WORK

Differentiation Resource Book, p. 15



Lesson 2-8 • Reinforce Understanding

Greater Than and Less Than

Name _____

Review

Review: A line goes from 1 pair of glasses to 1 smiley face. The groups are not equal. The group with more is circled. The group with less has an X.

Directions: 1–2. Draw a line from an object in one row to an object in the other row. Circle the group that shows more. Draw an X on the group that shows less.

Differentiation Resource Book

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

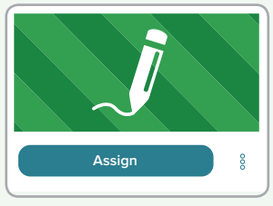
Greater Than Showdown

Students compare groups of objects.

GO ONLINE

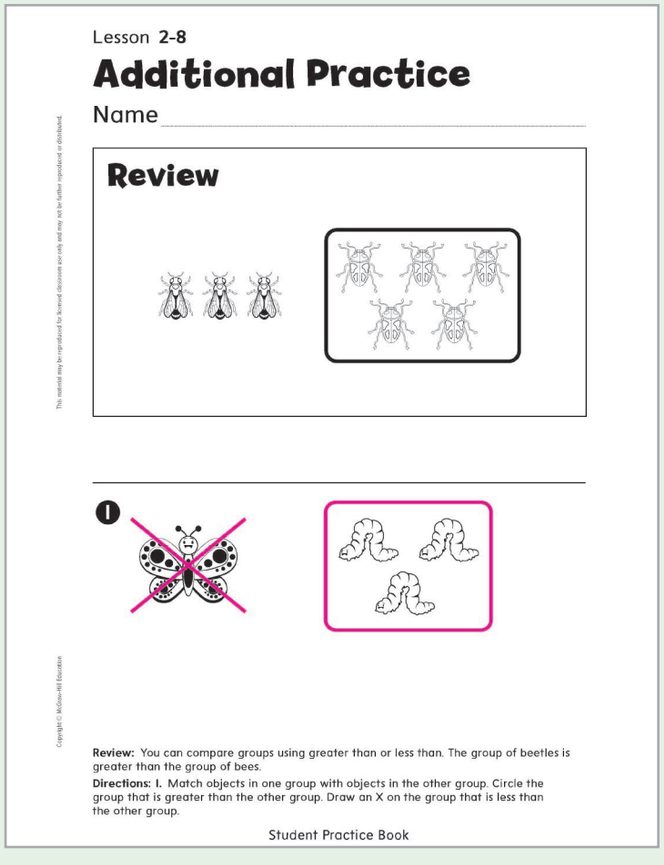
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Student Practice Book, pp. 15–16



Lesson 2-8

Additional Practice

Name _____

Review

Review: You can compare groups using greater than or less than. The group of beetles is greater than the group of bees.

Directions: 1. Match objects in one group with objects in the other group. Circle the group that is greater than the other group. Draw an X on the group that is less than the other group.

Student Practice Book

E Extend Thinking

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

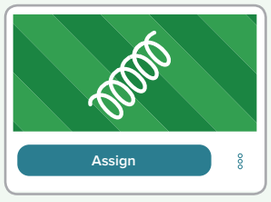
WORKSTATIONS

Use It! Application Station

Movement of Cars Students build car ramps and examine how different materials affect how the car moves.

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.



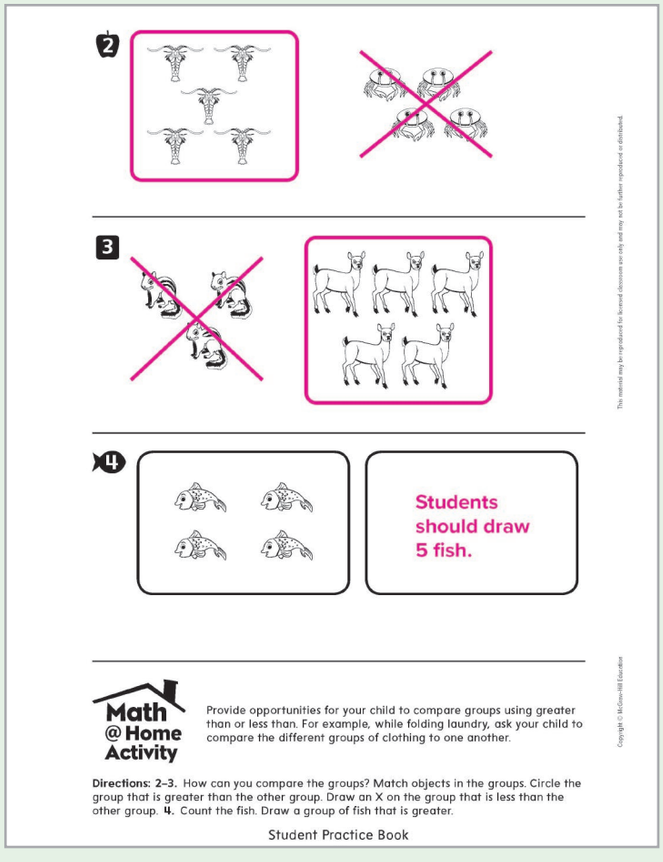
GO ONLINE

STEM Adventure

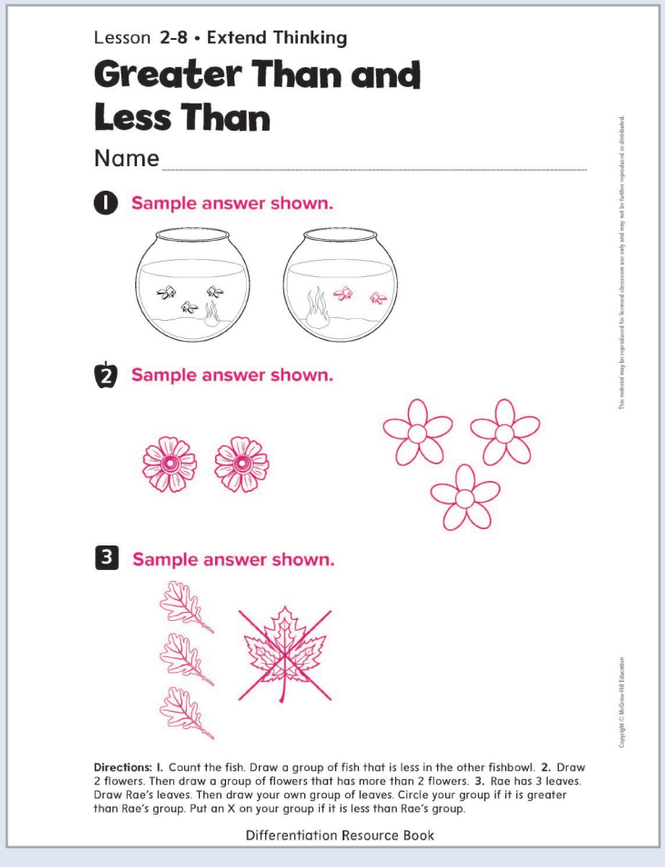
Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 15–16



Differentiation Resource Book, p. 16



LESSON **2-9**

Compare Numbers to 5

Learning Targets

- I can use counting to determine if the number of objects in one group is greater than, less than, or equal to the number of objects in another group.
- I can explain how to use counting to determine if the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

Standards ◇ Major △ Supporting ○ Additional

Content

◇ **K.CC.C** Compare numbers.

◇ **K.CC.C.6** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

Vocabulary

Math Terms	Academic Terms
greater than	compare
less than	relate

Materials

The materials may be for any part of the lesson.

- connecting cubes
- *Dot Cards 1–5* Teaching Resource
- spinner labeled 1-3
- spinner labeled 1-5
- counters

Focus

Content Objective	Language Objective	SEL Objective
• Students use counting to compare two groups.	• Students compare groups by expressing greater than, less than or equal to. • Support sense-making by participating in MLR2: Collect and Display.	• Students practice drawing to describe the logic and reasoning used to make a mathematical decision.

Coherence

Previous	Now	Next
• Students matched objects in two groups to determine which group was greater (Unit 2).	• Students apply their understanding of counting to compare the number of objects in two groups.	• Students compare objects in two groups up to 10 to determine which group is greater (Unit 3). • Students compare numbers using the greater than, less than, and equal to symbols (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students count objects in two groups to compare the groups.	• Students understand that the number of objects in each group can be used to compare two groups. *Procedural skill and fluency is not a targeted element of rigor for this standard.*	• Students apply their knowledge of counting to compare two groups of animals. *Application is not a targeted element of rigor for this standard.*

GO ONLINE

Number Routine
Would You Rather? 5–7 min

Build Fluency Students build their counting skills as they determine the amount in each box shown.

These prompts encourage students to talk about their reasoning:

- How did you count?
- Explain why you chose which group.

Purpose Students notice that there are more caterplillars and less butterflies.

Notice and Wonder™

- What do you notice? What do you wonder?

Teaching Tip You may choose to have students represent each group with two-color counters, and then count the number in each group.

ETP Pose Purposeful Questions

The questions that follow may be asked in any order. They are meant to help advance students' thinking about comparing two groups by looking at the number of objects in each group.

- What groups do you see in this picture?
- How are the groups the same?
- How are the groups different?
- How many butterflies?
- How many caterpillars?

Math is... Mindset

- How can you show your thinking?

SEL Responsible Decision-Making: Logic and Reasoning

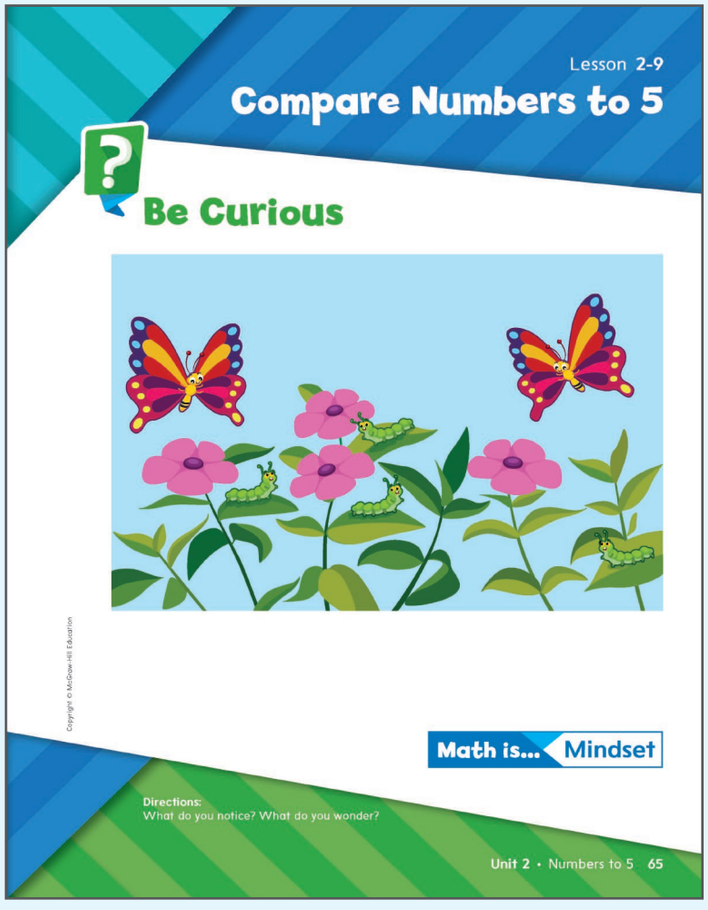
As students work through the Notice & Wonder routine, have them write, draw, or speak to each of the steps of their logic and reasoning. This can help students understand and justify their thought processes as they analyze situations, choose appropriate representations, and identify solutions.

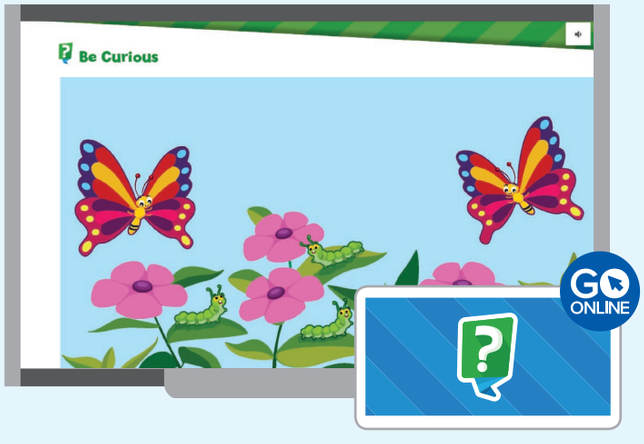
Transition to Explore & Develop

Ask questions that get students to think about how two groups can be compared by looking at the number of objects in each group.

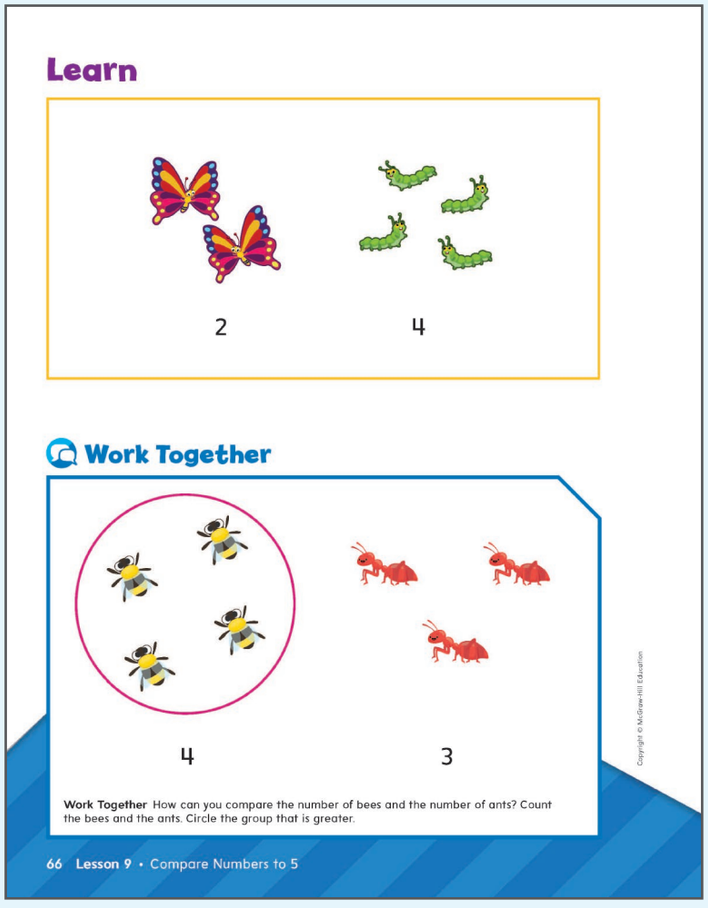
ETP Establish Goals to Focus Learning

- How can we use numbers to compare two groups?





Explore & Develop 20 min



1 Pose the Problem

MLR Collect and Display

Create a poster depicting the phrases *equal to*, *greater than*, *less than*. For equal to, draw a circle with the same number of red and black dots. For greater than, draw a circle with more red dots than black dots. For less than draw a circle with fewer red dots than black dots.

Read the problem to students.

- Pat sees some butterflies and caterpillars. She thinks there are more butterflies than caterpillars. Do you agree?

ETP Pose Purposeful Questions

- How can you compare the number of butterflies and the number of caterpillars?

2 Develop the Math

Chose the option that best meets your instructional goals.

3 Bring It Together

ETP Elicit Evidence of Student Thinking

- How can you compare the objects in two groups by counting?
- What can you say about the group that has more objects?
- How can you tell a friend how to count?

Key Takeaways

- The number of objects in two groups can be compared by counting the number of objects in each group. If the number of objects counted in one group is greater than the number of objects counted in the second group, the first group has more objects. The other group has fewer objects.
- Two groups can be compared by counting the objects in each group. If one group has more, the number of objects is greater than the number of objects in the other group.

Work Together

- How can you compare the number of bees and the number of ants? Count the bees and the ants. Circle the group that is greater.

Students circle the group of insects that is greater. Check that students correctly count and identify the number that is greater.

Common Misconception Some students may need additional practice comparing with physical objects before they assign numerals to the comparison sets. Model for students the vocabulary used to count the physical objects, the comparison words, and the number of each object.

LOM Language of Math

Discuss that when comparing two numbers, we use *less than* or *greater than* rather than *smaller* and *bigger*.

CHOOSE YOUR OPTION

Activity-Based Exploration

Students explore how to compare groups by counting the objects in each group.

Materials: *Dot Cards 1–5* Teaching Resource (1 card per student)

Directions: Have students work with a partner to compare their cards. Encourage students to switch partners to complete the activity multiple times.

ETP Support Productive Struggle

- What do you notice about the dots?
- How many dots are on each card?

After students have finished, have them share their findings. How did you find out which dot cards were *greater than*, *less than*, or equal to?

Display two of the dot cards. Demonstrate how to count the dots on each card, label them with a numeral, and compare the numerals. Discuss how counting is a strategy for comparing sets of objects and demonstrate how to count by comparing.

Math is... Quantities

- How can counting help to compare two groups?

Students consider how counting helps to compare two groups.

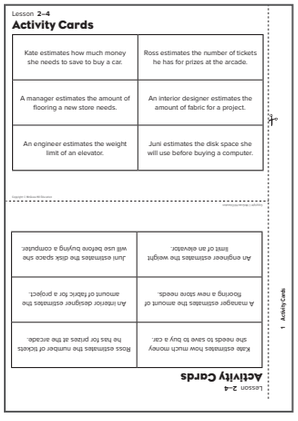
Have 5 students come to the front of the classroom. Position them into groups of 2 and 3 students, but do not line them up. Are these groups equal? How do you know? Discuss the number of students in each group.

Activity Debrief: Discuss how counting objects in two groups can tell which group is greater than or less than the other group.

Have students revisit the Pose the Problem question and discuss answers.

- Pat sees some butterflies and caterpillars. She thinks there are more butterflies than caterpillars. Do you agree?

The PDF of the Teaching Resource is available in the Digital Teacher Center.


Lesson 2–4
Activity Cards

Kate estimates how much money she needs to save to buy a car.	Ross estimates the number of tickets he has for prizes at the arcade.
A manager estimates the amount of flooring a new store needs.	An interior designer estimates the amount of fabric for a project.
An engineer estimates the weight limit of an elevator.	Juni estimates the disk space she will use before buying a computer.

Guided Exploration

Remind students that groups can be compared by matching the objects in each group. Explain that counting can also be used to compare two groups. Discuss that if a number of objects is greater in one group, then that group is *greater than* the other group. Likewise, if the number of objects is less in one group, then that group is *less than* the other group.

ETP Facilitate Meaningful Discourse

- How can we compare the butterflies and caterpillars?
- Which is greater—the number of butterflies or caterpillars? Explain.
- How does counting help to compare the two groups?
- What can you say about a group with a greater number of objects?
- **Think About It:** How does counting help you compare two groups of objects?

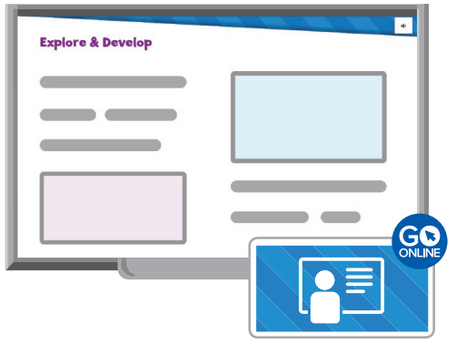
Math is... Quantities

- How can counting help to compare two groups?

Students consider how counting helps to compare two groups.

Ask each student to gather a group of 1–5 objects from their desk or table. Have them work with a partner to count the groups of objects. Ask them which group has the greater number of objects.

- How can counting help you know which group is greater?



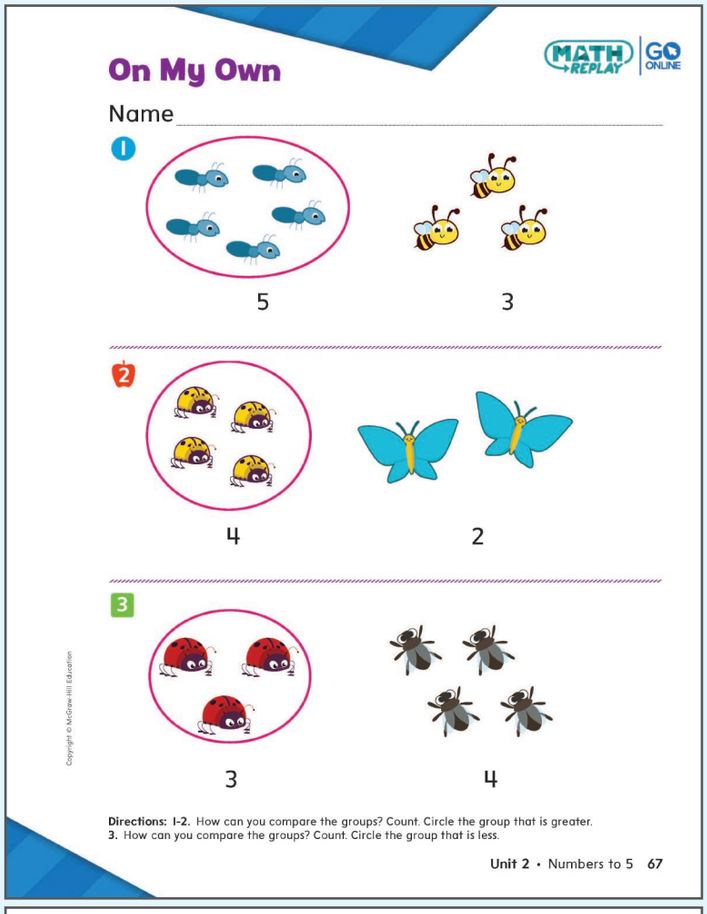
EL English Learner Scaffolds

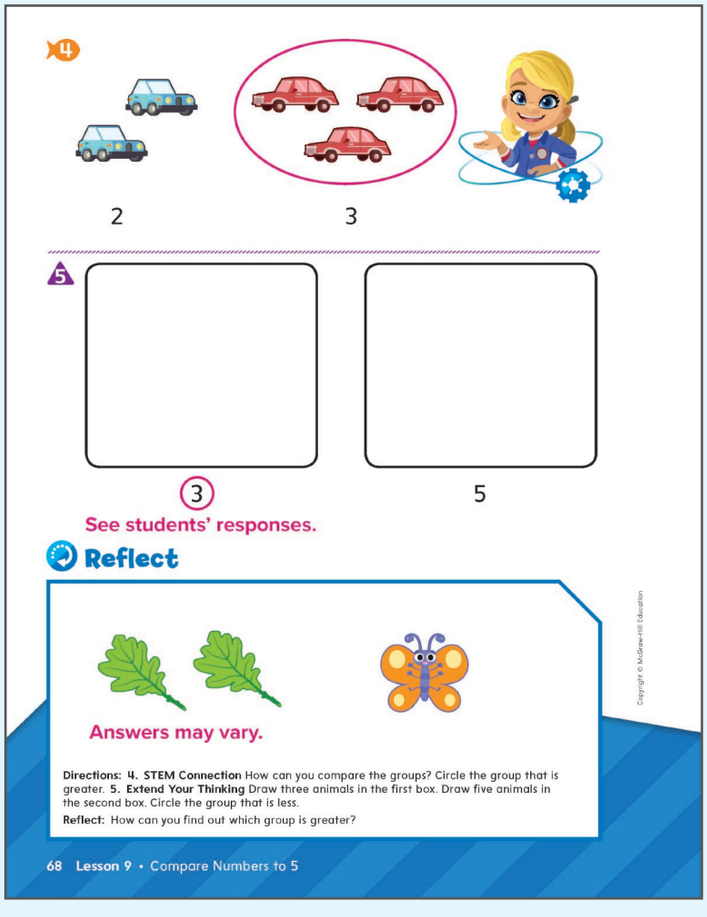
Entering/Emerging Support students with understanding the question, *How can/does counting help to compare two groups?* Display five markers and five crayons, and demonstrate the answer by counting each group. Repeat with other groups. To check comprehension, point to two groups and ask the question. Elicit that the students compare the groups by counting.

Developing/Expanding Support students with understanding the question, *How can/does counting help to compare two groups?* Display five markers and five crayons, and demonstrate comparing by counting each group. Repeat with other groups. To check comprehension, point to two groups and ask the question. Elicit that the students count the objects in each group to compare.

Bridging/Reaching Give students opportunities to explain how counting helps to compare two groups. Place two groups of objects with the same number. Ask, *How can/does counting help to compare two groups?* Elicit a full sentence response such as, *Counting helps to show the number in each group. This helps you compare because ___.*

Practice & Reflect 10 min





Practice

ETP Build Fluency from Understanding

For Exercises 1–3, ask students,

- How can you compare the groups? Count. Circle the group that is greater.

For Exercise 4, ask students,

- How can you compare the groups? Circle the group that is greater.

For Exercise 5, tell students,

- Draw three animals in the first box. Draw five animals in the second box. Circle the group that is less.

Common Error: Exercises 1–5 Students may struggle with identifying the number that is less than or greater than. Refer students to the amount of objects in each group to see which number corresponds to each amount of objects. Then have them tell the greater number.

Practice Item Analysis

Item	DOK	Rigor
1–4	2	Conceptual Understanding, Procedural Skill and Fluency
5	3	Application

Reflect

Students complete the Reflect question.

- How can you find out which group is greater?

Ask students to share their reflections with their classmates.

Math is... Mindset

- How did showing your thinking help you?

Students reflect on how they practiced responsible decision-making.

Learning Targets

Ask students to reflect on the Learning Targets of the lesson.

- I can use counting to determine if the number of objects in one group is greater than, less than, or equal to the number of objects in another group.
- I can explain how to use counting to determine if the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

To review today's lesson, have students watch the Math Replay video in their Digital Student Center.

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GO ONLINE MATH REPLAY

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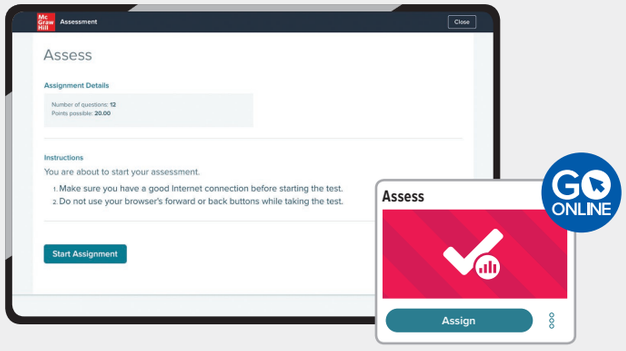
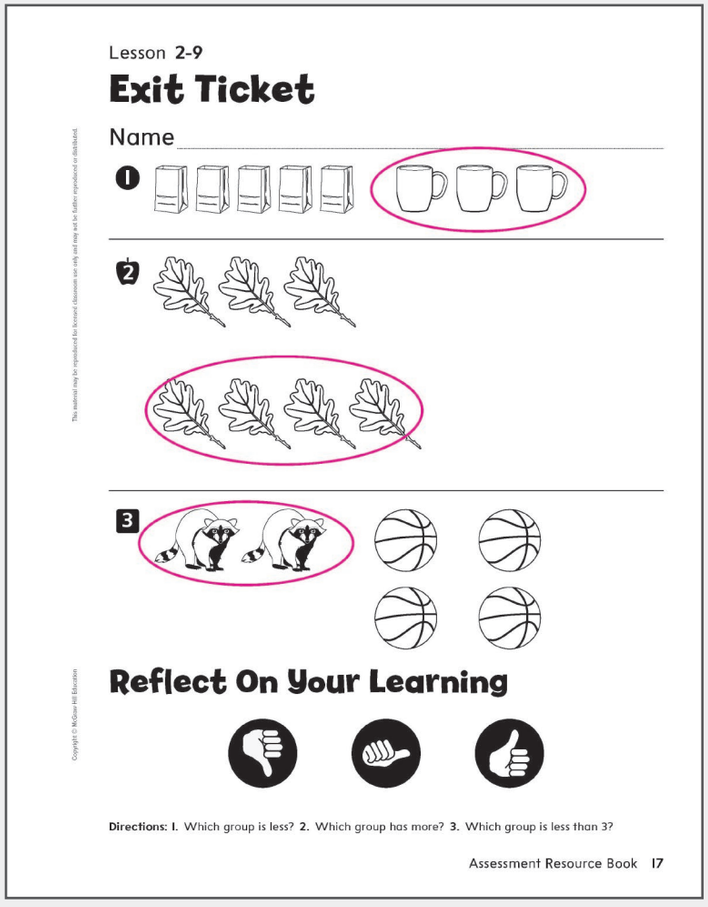
B Build Proficiency
E Extend Thinking





Lesson 2-9

Exit Ticket

Name _____

1

2

3

Reflect On Your Learning

Directions: 1. Which group is less? 2. Which group has more? 3. Which group is less than 3?

Assessment Resource Book 17

Differentiate

10 min Select resources based on your classroom set up, or your students' needs.

R Reinforce Understanding

SMALL GROUP

Spin and Compare

Work with students in pairs. Each student spins a spinner labeled 1–3 and uses counters or cubes to show the number. They compare the groups. Example 1 is less than 3, 3 is greater than 1. If students are struggling to compare, suggest counting and matching the objects one to one. After some successful rounds, provide spinners labeled 1–5.

B Build Proficiency

WORKSTATIONS

Practice It! Game Station

Number Showndown

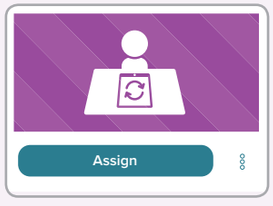
Students practice comparing groups of **objects.**

GO ONLINE

Take Another Look Lesson

Assign the interactive lesson to reinforce targeted skills.

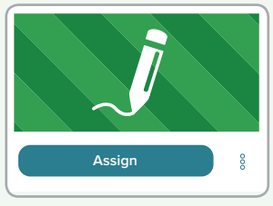
- Less than, Greater than or Equal to 5



GO ONLINE

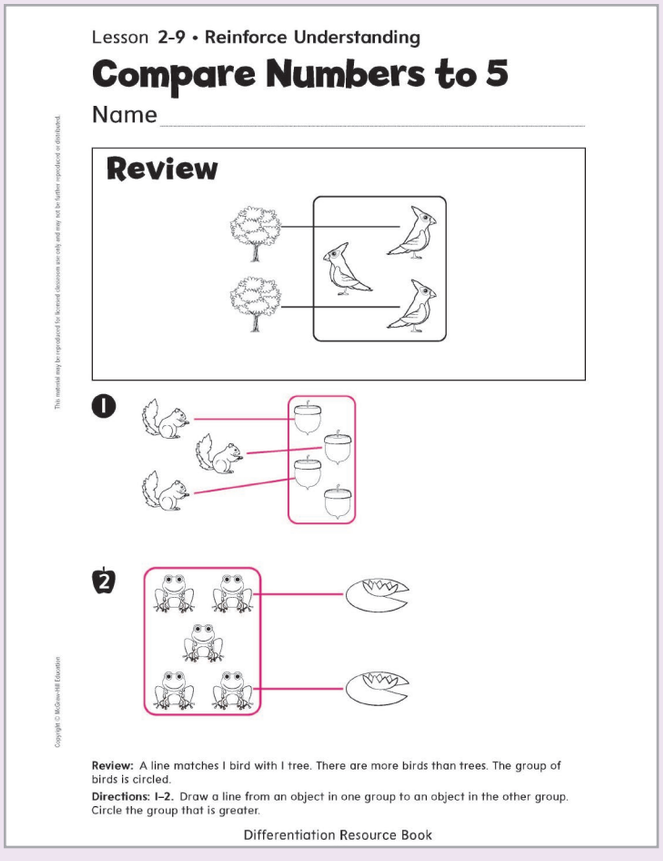
Interactive Additional Practice

Assign the digital version of the Student Practice Book.



INDEPENDENT WORK

Differentiation Resouce Book, p. 17



Lesson 2-9 • Reinforce Understanding

Compare Numbers to 5

Name _____

Review

1

2

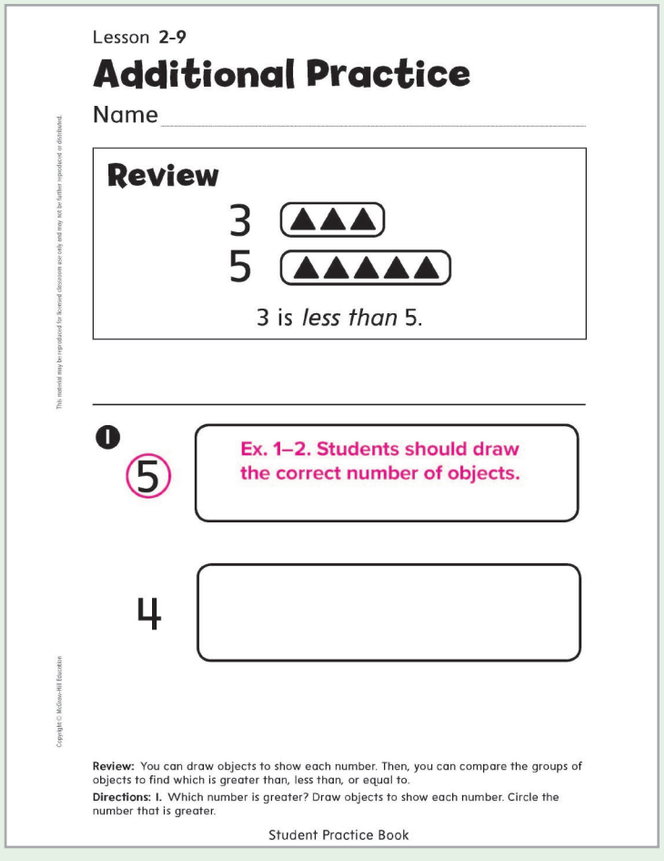
Review: A line matches 1 bird with 1 tree. There are more birds than trees. The group of birds is circled.

Directions: 1–2. Draw a line from an object in one group to an object in the other group. Circle the group that is greater.

Differentiation Resource Book

INDEPENDENT WORK

Student Practice Book, pp. 17–18



Lesson 2-9

Additional Practice

Name _____

Review

3 ▲▲▲

5 ▲▲▲▲▲

3 is *less than* 5.

1

5

Ex. 1–2. Students should draw the correct number of objects.

4

Review: You can draw objects to show each number. Then, you can compare the groups of objects to find which is greater than, less than, or equal to.

Directions: 1. Which number is greater? Draw objects to show each number. Circle the number that is greater.

Student Practice Book

E Extend Thinking

WORKSTATIONS

Own It! Digital Station

Build Fluency **Games**

Assign the digital game to develop fluency with counting to 5.

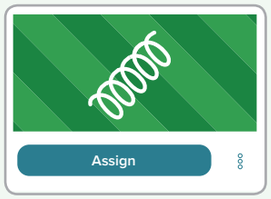
Use It! Application Station

A Farm Maze Students describe how to move in the maze to see all the animals.

GO ONLINE

Spiral Review

Assign the digital Spiral Review to students or download and print PDFs of the Spiral Review from the Digital Teacher Center.

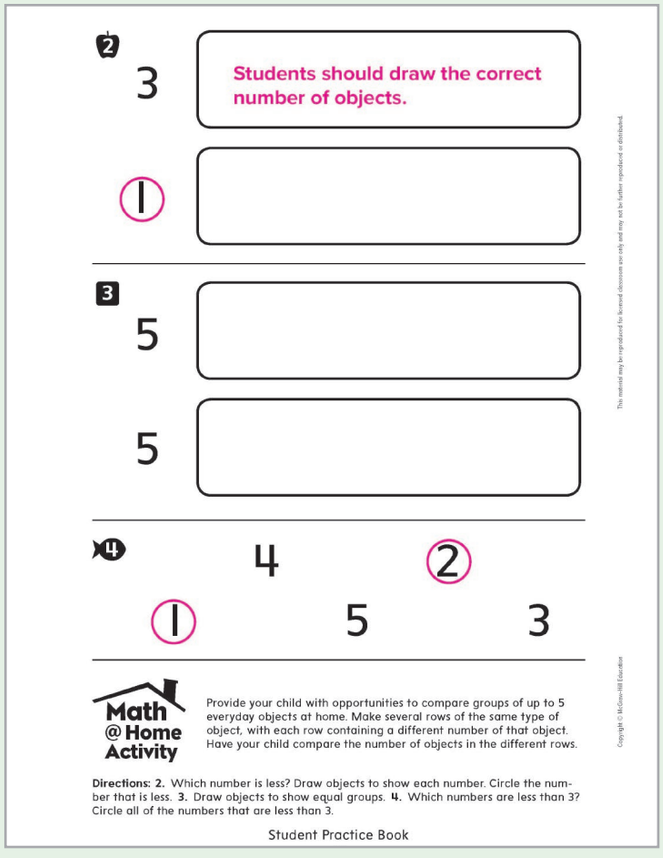


STEM Adventure

Assign a digital simulation to apply skills and extend thinking.

INDEPENDENT WORK

Student Practice Book, pp. 17–18



2 3 — Students should draw the correct number of objects.

1

3 5

5

4 4 2 1 5 3

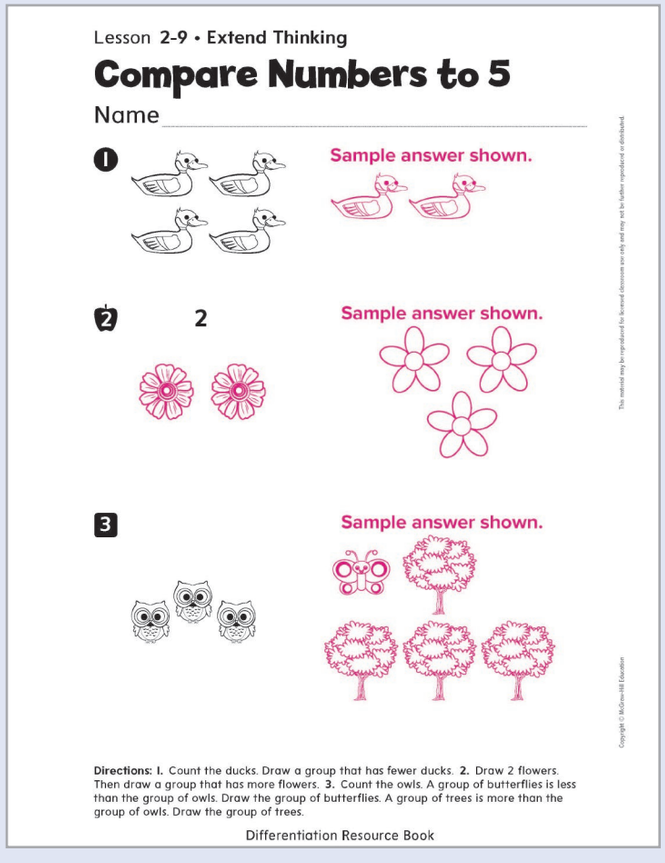
Math @ Home Activity

Provide your child with opportunities to compare groups of up to 5 everyday objects at home. Make several rows of the same type of object, with each row containing a different number of that object. Have your child compare the number of objects in the different rows.

Directions: 2. Which number is less? Draw objects to show each number. Circle the number that is less. **3.** Draw objects to show equal groups. **4.** Which numbers are less than 3? Circle all of the numbers that are less than 3.

Student Practice Book

Differentiation Resource Book, p. 18



Lesson 2-9 • Extend Thinking

Compare Numbers to 5

Name _____

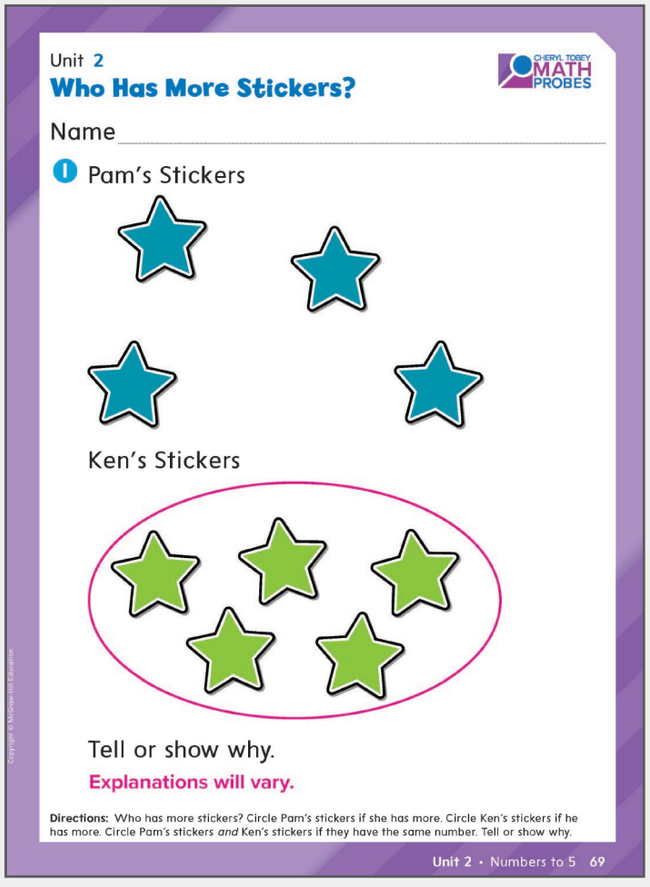
1 — Sample answer shown.

2 2 — Sample answer shown.

3 — Sample answer shown.

Directions: 1. Count the ducks. Draw a group that has fewer ducks. **2.** Draw 2 flowers. Then draw a group that has more flowers. **3.** Count the owls. A group of butterflies is less than the group of owls. Draw the group of butterflies. A group of trees is more than the group of owls. Draw the group of trees.

Differentiation Resource Book



Unit 2
Who Has More Stickers?

Name _____

1 Pam's Stickers

Ken's Stickers

Tell or show why.
Explanations will vary.

Directions: Who has more stickers? Circle Pam's stickers if she has more. Circle Ken's stickers if he has more. Circle Pam's stickers *and* Ken's stickers if they have the same number. Tell or show why.

Unit 2 • Numbers to 5 69

2 Al's Stickers

Joy's Stickers

Tell or show why.
Explanations will vary.

Reflect On Your Learning

Directions: Who has more stickers? Circle Al's stickers if he has more. Circle Joy's stickers if she has more. Circle Al's stickers *and* Joy's stickers if they have the same number. Tell or show why.
Reflect On Your Learning: Circle to show your understanding.

70 Math Probe • Who Has More Stickers?

Analyze The Probe

Formative Assessment

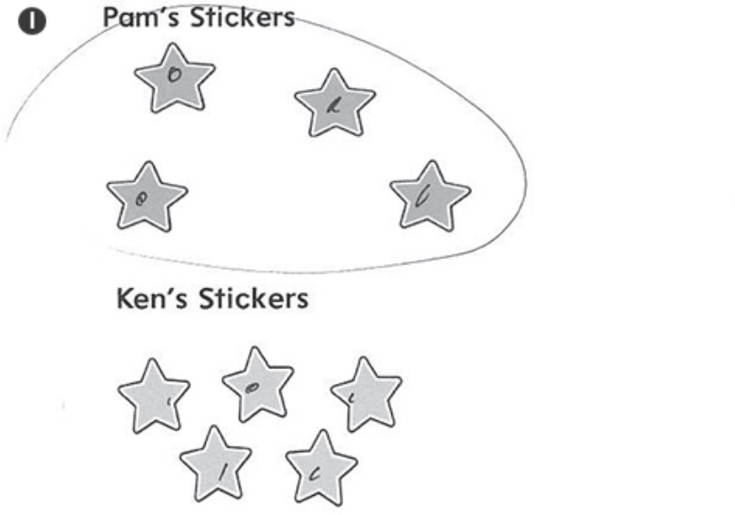
Targeted Concept Compare the counts of objects with varied arrangements, and interpret the meaning of "more."

Targeted Misconceptions Students may interpret "more" as relating to the space that objects take up or their arrangement rather than as a comparison of the count of a set of objects.

Authentic Student Work

Below are examples of correct student work and explanations.

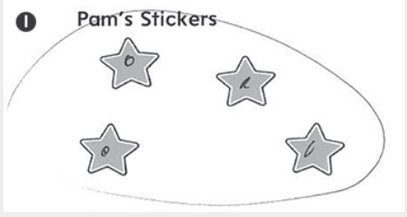
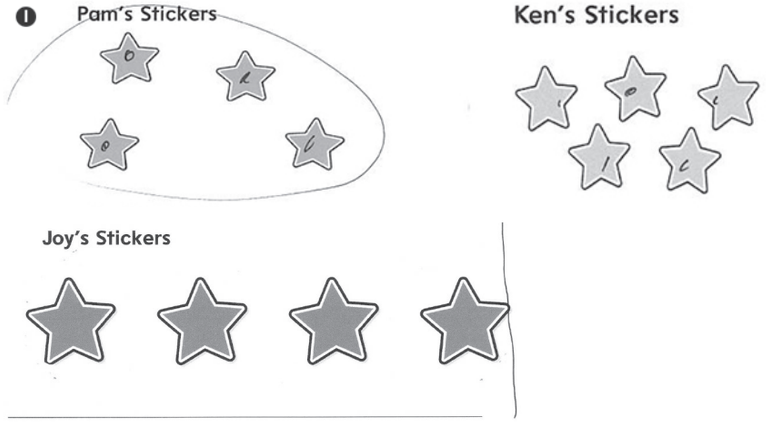
Sample A



Sample B

Collect and Assess Student Work

Collect and review student response to determine possible misconceptions. See examples in If-Then chart.

IF incorrect...	THEN the student likely...	Sample Misconceptions
1. Pam's stickers 2. Joy's stickers	thinks that when the configuration of objects is stretched apart with more space in between, the group is "more" or greater.	
2. Pam's stickers	thinks that when objects are clustered more closely there are "more" of them, or that the amount is greater. Note that this misconception	
1. Pam's stickers and Ken's stickers 2. Joy's stickers or other incorrect choices	has made an error in counting or misinterprets the meaning of "more."	
Many of the above difficulties result in a combination of correct and incorrect responses. For correct responses, be sure to check for sound reasoning.		

Take Action

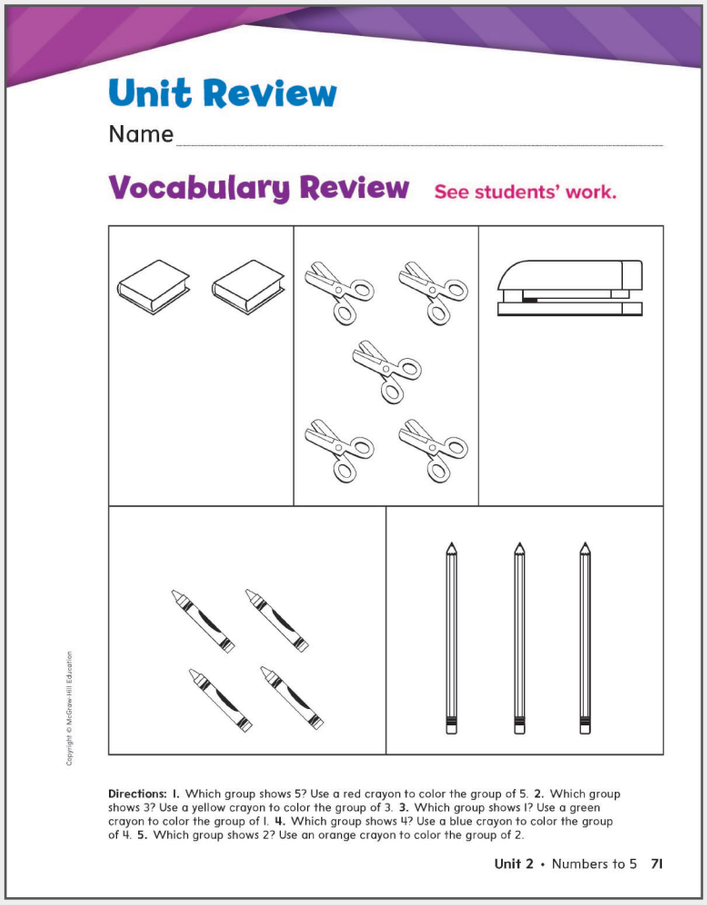
Choose from the following resources or suggestions:

- Provide experiences, such as those in Lesson 1-6, using concrete materials, to help students build understanding of one-to-one correspondence. Begin with blocks arranged in a straight row. Then move to more complicated arrangements, such as multiple rows or random groups.
- Provide opportunities for students to count pictures of static objects that cannot be moved during the counting process.
- Have students build sets of objects that meet the following given criteria: more than, less than, and the same as.
- Discuss counting strategies that can help a child keep track of the items that he or she has and has not counted. Have students explore different starting points to see if it matters as to where you start to count.

Revisit the Probe After additional instruction, have students review their initial answers to the probe. Use these questions for discussion:

- Are there any answers you would like to change? Explain why you might want to change them.
- Are there any questions that you still have about any of the items on this probe?

Metacognitive Check *Reflect on Your Learning* allows students to think about their level of understanding of the lesson content on a scale of 1 to 3 with 3 being the highest confidence.



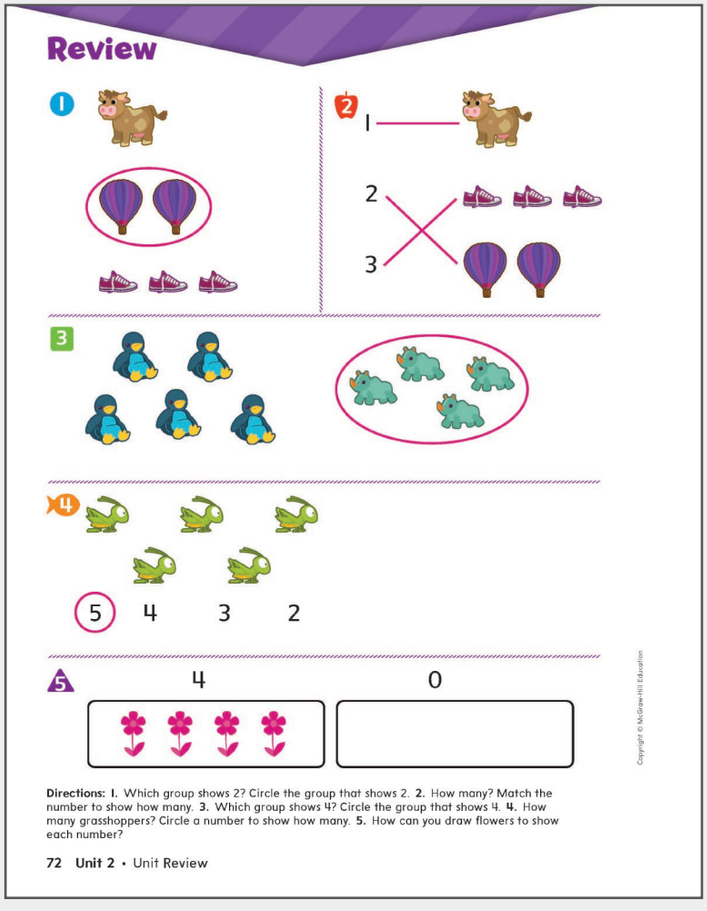
Unit Review

Name _____

Vocabulary Review See students' work.

Directions: 1. Which group shows 5? Use a red crayon to color the group of 5. 2. Which group shows 3? Use a yellow crayon to color the group of 3. 3. Which group shows 1? Use a green crayon to color the group of 1. 4. Which group shows 4? Use a blue crayon to color the group of 4. 5. Which group shows 2? Use an orange crayon to color the group of 2.

Unit 2 • Numbers to 5 71



Review

5 4 3 2

4 0

Directions: 1. Which group shows 2? Circle the group that shows 2. 2. How many? Match the number to show how many. 3. Which group shows 4? Circle the group that shows 4. 4. How many grasshoppers? Circle a number to show how many. 5. How can you draw flowers to show each number?

72 Unit 2 • Unit Review

Students can complete the **Unit Review** to prepare for the **Unit Assessment.** Students may complete the Review in their Interactive eBook in the Digital Student Center.

Vocabulary Review

Item Analysis

Item	Lesson
1	2-1
2	2-1
3	2-1
4	2-3
5	2-3

Review

Item Analysis

Item	DOK	Lesson	Standard
1	1	2-1	K.CC.B.4
2	1	2-2	K.CC.B.4
3	1	2-3	K.CC.B.4
4	1	2-4	K.CC.B.4
5	1	2-5	K.CC.A.3

To review the lessons in this unit, have students watch the Math Replay video in their Digital Student Center.

Assign the Unit Review practice to students from the Digital Teacher Center.

GO ONLINE MATH REPLAY

Item Analysis (continued)

Item	DOK	Lesson	Standard
6	1	2-7	K.CC.C.6
7	1	2-8	K.CC.C.6
8	1	2-9	K.CC.C.6
9	1	2-6	K.CC.B.4.c

Performance Task

Standards: K.CC.B.4.b, K.CC.C.6

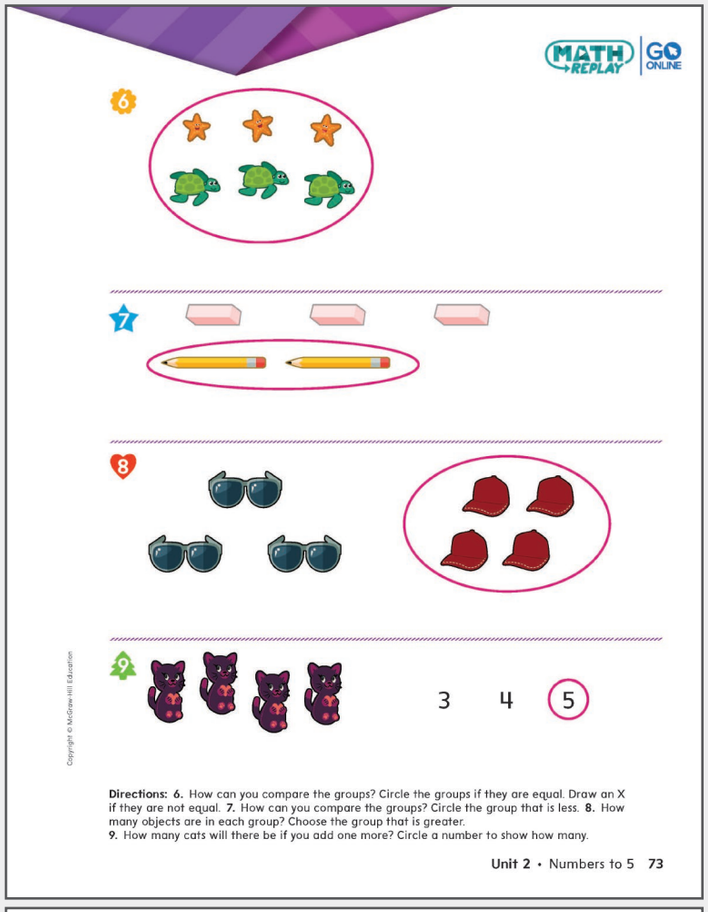
Rubric **(4 points)**

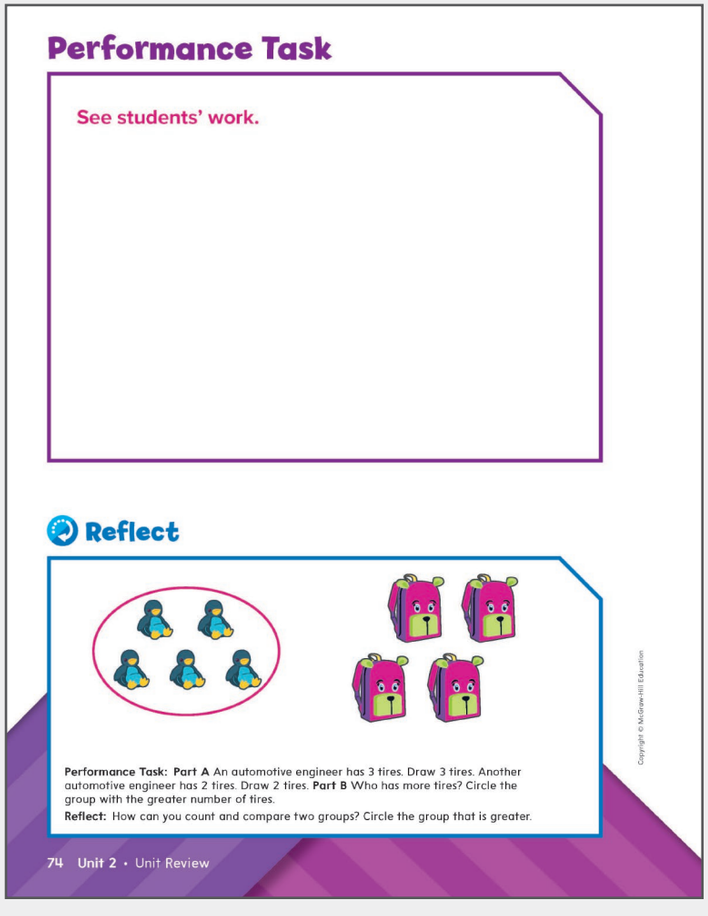
Part A – 2 points	
2 POINTS	Student's work shows proficiency with representing a number.
1 POINT	Student's work shows developing proficiency with representing a number.
0 POINTS	Student's work shows weak proficiency with representing a number.

Part B – 2 points	
2 POINTS	Student's work shows proficiency with comparing the number of objects in two groups.
1 POINT	Student's work shows developing proficiency with comparing the number of objects in two groups.
0 POINTS	Student's work shows weak proficiency with comparing the number of objects in two groups.

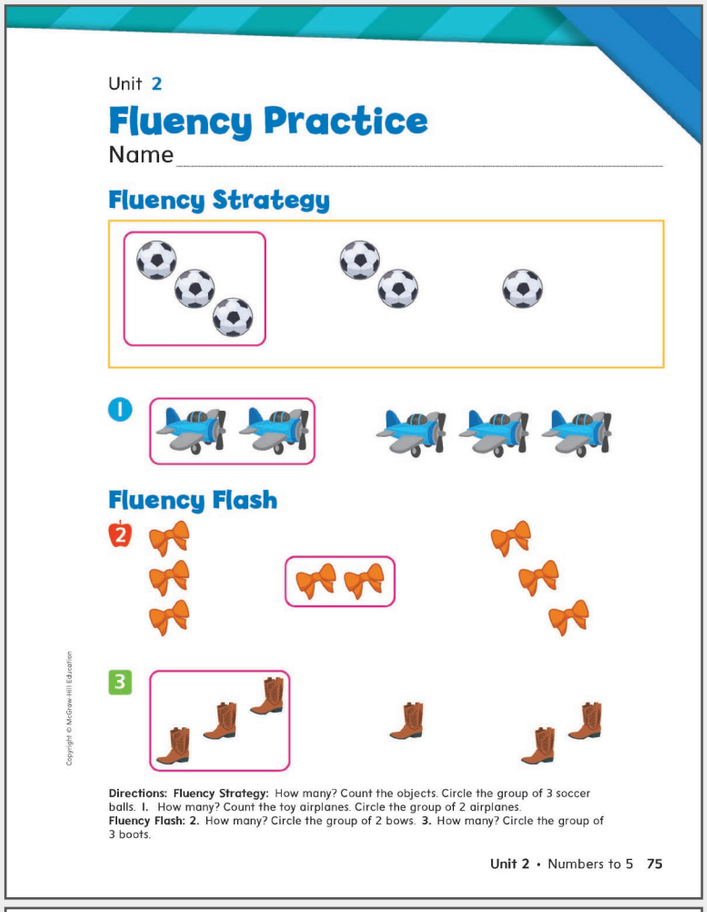
Reflect

The Reflect question provides an opportunity for students to express their understanding of the unit level focus question.





Fluency Practice


Unit 2

Fluency Practice

Name _____

Fluency Strategy

1

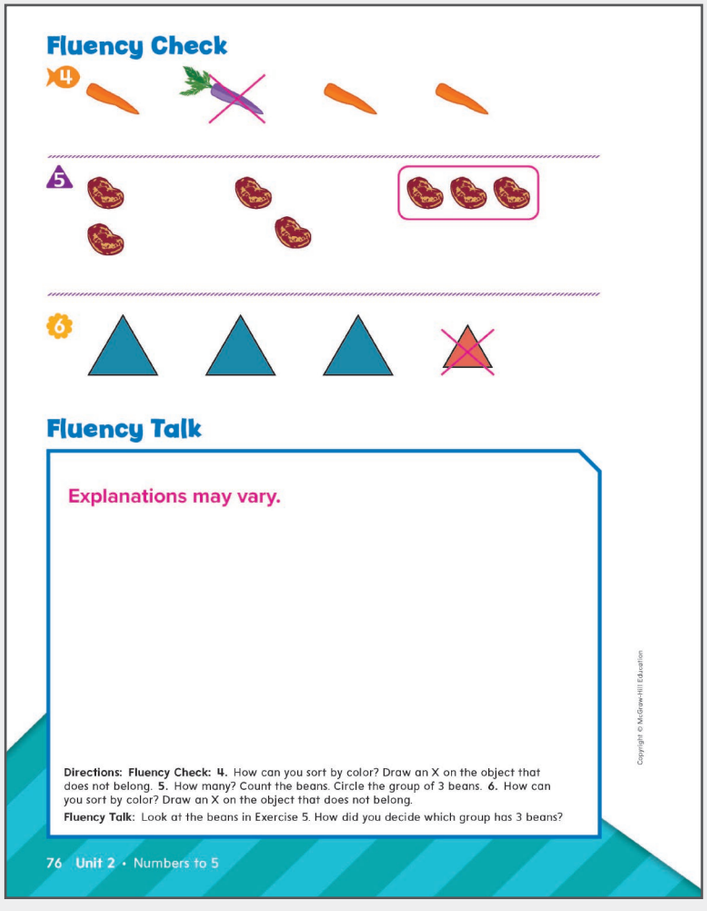
Fluency Flash

2

3

Directions: Fluency Strategy: How many? Count the objects. Circle the group of 3 soccer balls. 1. How many? Count the toy airplanes. Circle the group of 2 airplanes. Fluency Flash: 2. How many? Circle the group of 2 bows. 3. How many? Circle the group of 3 boots.

Unit 2 • Numbers to 5 75


Fluency Check

4

5

6

Fluency Talk

Explanations may vary.

Directions: Fluency Check: 4. How can you sort by color? Draw an X on the object that does not belong. 5. How many? Count the beans. Circle the group of 3 beans. 6. How can you sort by color? Draw an X on the object that does not belong.
Fluency Talk: Look at the beans in Exercise 5. How did you decide which group has 3 beans?

76 Unit 2 • Numbers to 5

Fluency practice helps students develop procedural fluency, that is, the "ability to apply procedures accurately, efficiently, and flexibly." Because there is no expectation of speed, students should not be timed when completing the practice activity.

Build Fluency **Objective** Students practice counting up to 3 objects in a line to build a foundation for adding and subtracting within 5.

Fluency Progression

Unit	Skill	Standard
1	Sort by Color	K.MD.B.3
2	**Count Objects in a Line (Up to 3)**	**K.CC.B.5**
3	Count Objects in a Line (Up to 5)	K.CC.B.5
4	Count Objects (Up to 5)	K.CC.B.5
5	Count Objects in a Line (Up to 10)	K.CC.B.5
6	Count Objects (Up to 10)	K.CC.B.5
7	Compare Groups (Up to 5 Objects)	K.CC.C.6
8	Compare Groups (Up to 10 Objects)	K.CC.C.6
9	Compare Numbers to 10	K.CC.C.7
10	Subitize 3, 4, and 5	K.CC.B.5
11	Count On to Add (Within 5)	K.OA.A.5
12	Count Back to Subtract (Within 5)	K.OA.A.5
13	Add (Within 5)	K.OA.A.5
14	Subtract (Within 5)	K.OA.A.5

Fluency Expectations

Grade K

- Add and subtract within 5.

Grade 1

- Add and subtract within 10.

How Many Apples?

Students draw on their understanding of numbers to 5. Use the rubric shown to evaluate students' work.

Standards: K.CC.A.3, K.CC.B.4.a, K.CC.B.4.b, K.CC.B.4.c, K.CC.C.6

Rubric (8 points)

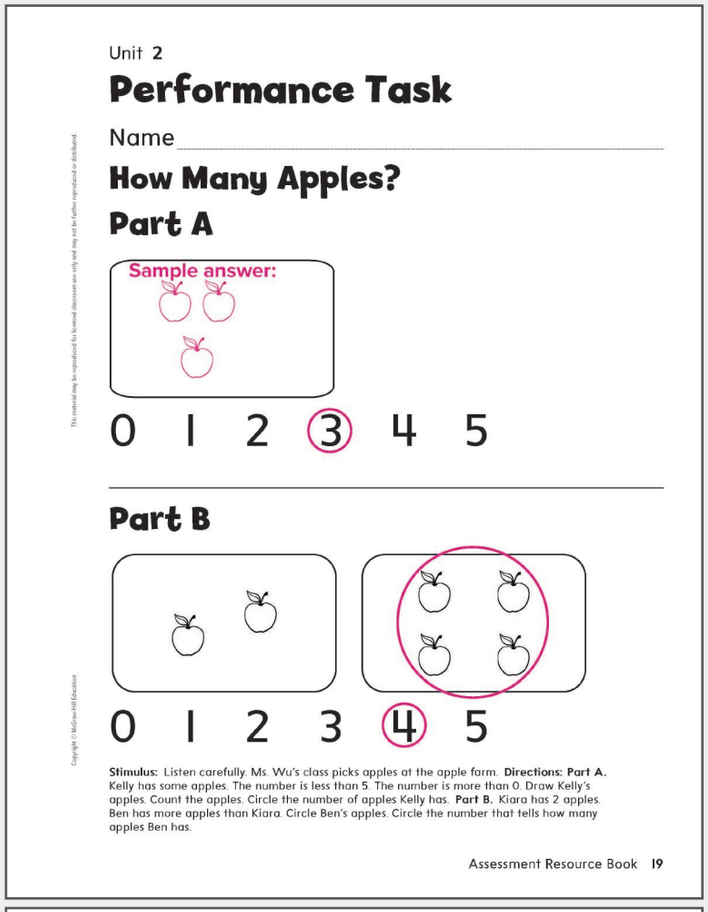
Part A (DOK 2) – 2 points	
2 POINTS	Student's work reflects proficiency with counting to 5 and recognizing numerals. Student's drawing is accurate. Student identifies the correct number.
1 POINT	Student's work reflects developing proficiency with counting to 5 and recognizing numerals. Either the student's drawing is inaccurate, or student fails to identify the correct number.
0 POINTS	Student's work reflects a poor understanding of counting to 5 and recognizing numerals. Student's drawing is inaccurate, and student fails to identify the correct number.

Part B (DOK 2) – 2 points	
2 POINTS	Student's work reflects proficiency in recognizing which group is greater. Student identifies the greater group and the correct number.
1 POINT	Student's work reflects developing proficiency in recognizing which group is greater. Student identifies the greater group but fails to identify the correct number.
0 POINTS	Student's work reflects a poor understanding of recognizing which group is greater. Student fails to identify the greater group and fails to identify the correct number.

Part C (DOK 2) – 1 point	
1 POINT	Student's work shows an understanding of the meaning of 0. Student identifies the number 0.
0 POINTS	Student's work reflects a poor understanding of the meaning of 0. Student fails to identify the number 0.

Part D (DOK 2) – 1 point	
1 POINT	Student's work shows an understanding of the meaning of one more. Student's drawing is accurate.
0 POINTS	Student's work reflects a poor understanding of the meaning of one more. Student's drawing is inaccurate.

Part E (DOK 3) – 2 points	
2 POINTS	Student's work reflects proficiency in recognizing equal groups and the ability to explain what it means for two groups to be equal. Student's work shows two groups of 5 and indicates that the groups contain the same number of objects.
1 POINT	Student's work reflects developing proficiency in recognizing equal groups. Student's work may show two equal groups, but the explanation is inaccurate or incomplete.
0 POINTS	Student's work reflects a poor understanding of recognizing equal groups. Student's work does not show equal groups, and the explanation is inaccurate or missing.



Unit 2

Performance Task

Name _____

How Many Apples?

Part A

Sample answer:

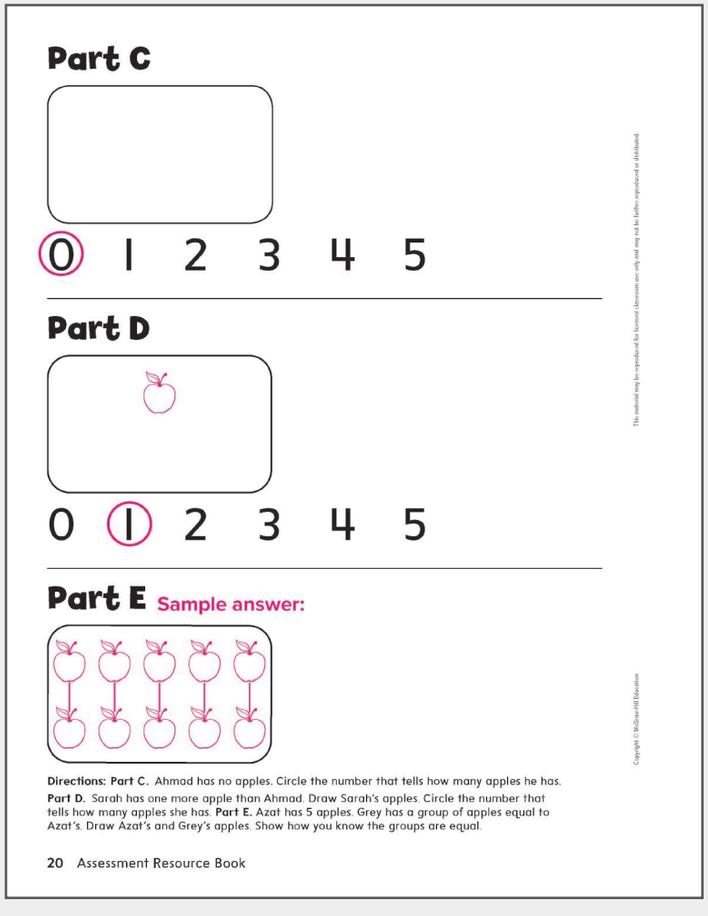
0 1 2 3 4 5

Part B

0 1 2 3 4 5

Stimulus: Listen carefully. Ms. Wu's class picks apples at the apple farm. Directions: Part A. Kelly has some apples. The number is less than 5. The number is more than 0. Draw Kelly's apples. Count the apples. Circle the number of apples Kelly has. Part B. Kiara has 2 apples. Ben has more apples than Kiara. Circle Ben's apples. Circle the number that tells how many apples Ben has.

Assessment Resource Book 19



Part C

0 1 2 3 4 5

Part D

0 1 2 3 4 5

Part E Sample answer:

Directions: Part C. Ahmad has no apples. Circle the number that tells how many apples he has. Part D. Sarah has one more apple than Ahmad. Draw Sarah's apples. Circle the number that tells how many apples she has. Part E. Azat has 5 apples. Grey has a group of apples equal to Azat's. Draw Azat's and Grey's apples. Show how you know the groups are equal.

20 Assessment Resource Book

Unit 2 Assessment

Form A

Two forms of the Unit Assessment, Form A and Form B, are available for either print or digital administration. The items on the two assessments are parallel items, assessing the same concept and standard. The table below provides the item analysis for both forms.

Both Unit Assessments are available in the Assessment Resource Book or as downloadable files from the Digital Teacher Center.

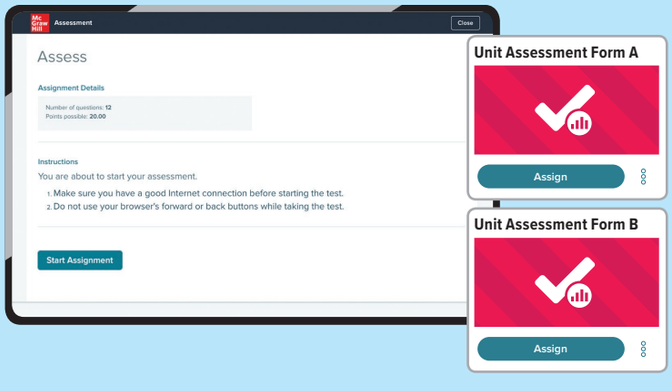
Data When students complete the Unit Assessment in the Digital Student Center, their responses are auto-scored.

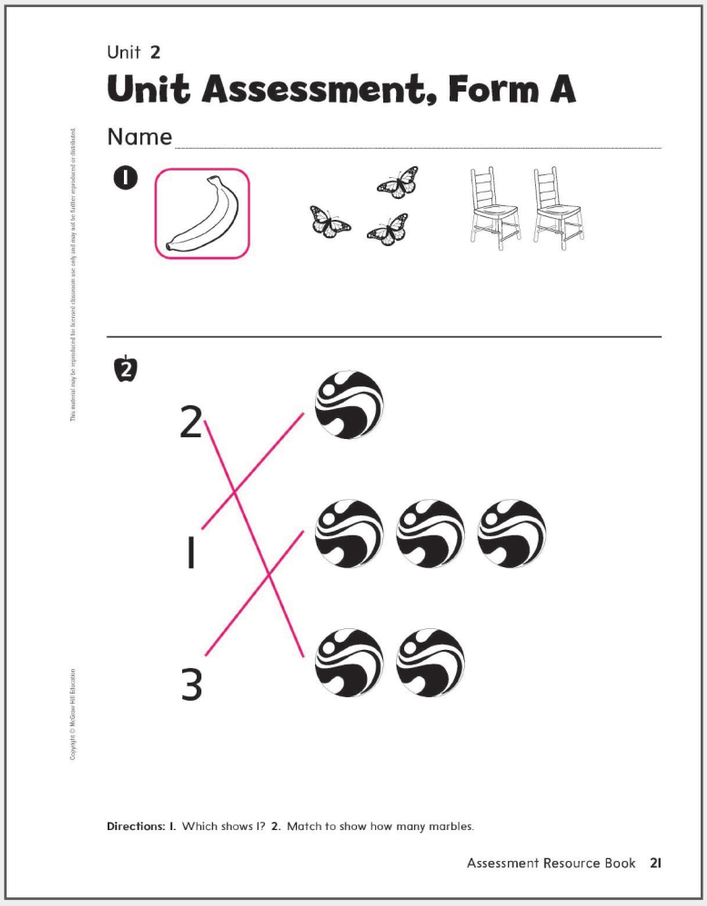
Item Analysis

Item	DOK	Lesson	Guided Support Intervention Lesson	Standard
1	1	2–1	Count to 3 with Dots as Objects	K.CC.B.4
2	1	2–2	Recognize Numerals 1, 2, and 3	K.CC.B.4
3	2	2–7	Same or Different with Two Groups	K.CC.C.6
4	1	2–3	Count to 5 with Dots as Objects	K.CC.B.4
5	1	2–8	Less than, Greater than or Equal to 5	K.CC.C.6
6	2	2–5	Meaning of Zero	K.CC.A.3
7	1	2–8	Less than, Greater than or Equal to 5	K.CC.C.6
8	1	2–9	Less than, Greater than or Equal to 5	K.CC.C.6
9	1	2–4	Identify Sets of 1 to 5 Objects	K.CC.B.4
10	1	2–6	Successive Numbers to 5	K.CC.B.4

GO ONLINE

Assign the digital Unit Assessment (Form A or B) to students or download and print PDFs from the Digital Teacher Center.




Unit 2

Unit Assessment, Form A

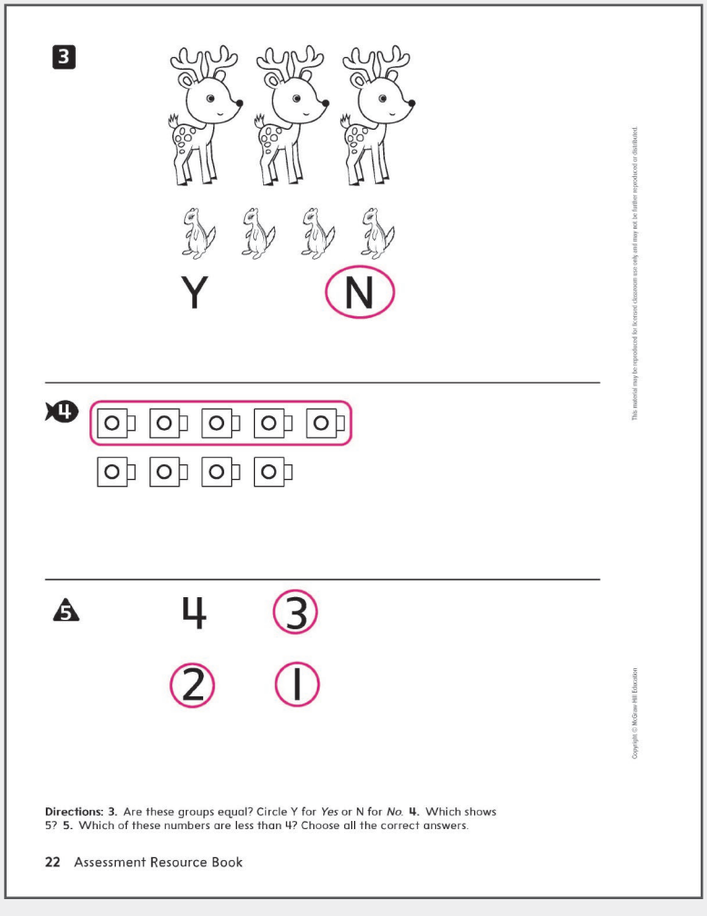
Name _____

1

2

Directions: 1. Which shows 1? **2.** Match to show how many marbles.

Assessment Resource Book 21


3

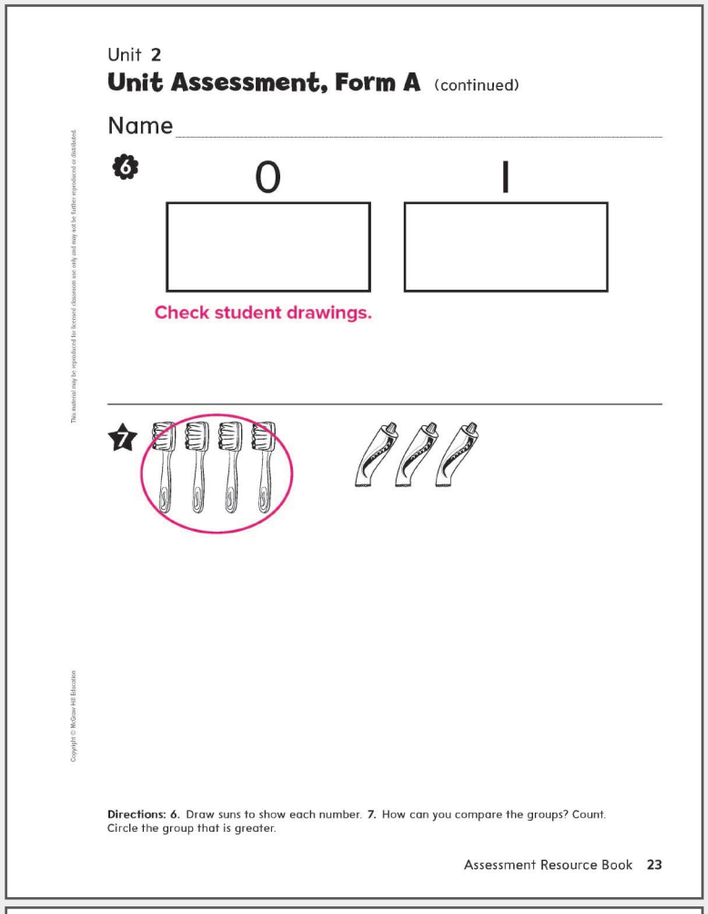
Y N

4

5 4 3 2 1

Directions: 3. Are these groups equal? Circle Y for *Yes* or N for *No*. **4.** Which shows 5? **5.** Which of these numbers are less than 4? Choose all the correct answers.

22 Assessment Resource Book


Unit 2
Unit Assessment, Form A (continued)
Name
6
0
1
Check student drawings.
7
Directions: 6. Draw suns to show each number. 7. How can you compare the groups? Count. Circle the group that is greater.
Assessment Resource Book 23
8
A.
B.
C.
9
A.
B.
C.
D.
10
2
4
Directions: 8. Count the gloves. Which group is less? 9. Which groups show 5? Choose all the correct answers. 10. Which number is one more than 3?
24 Assessment Resource Book
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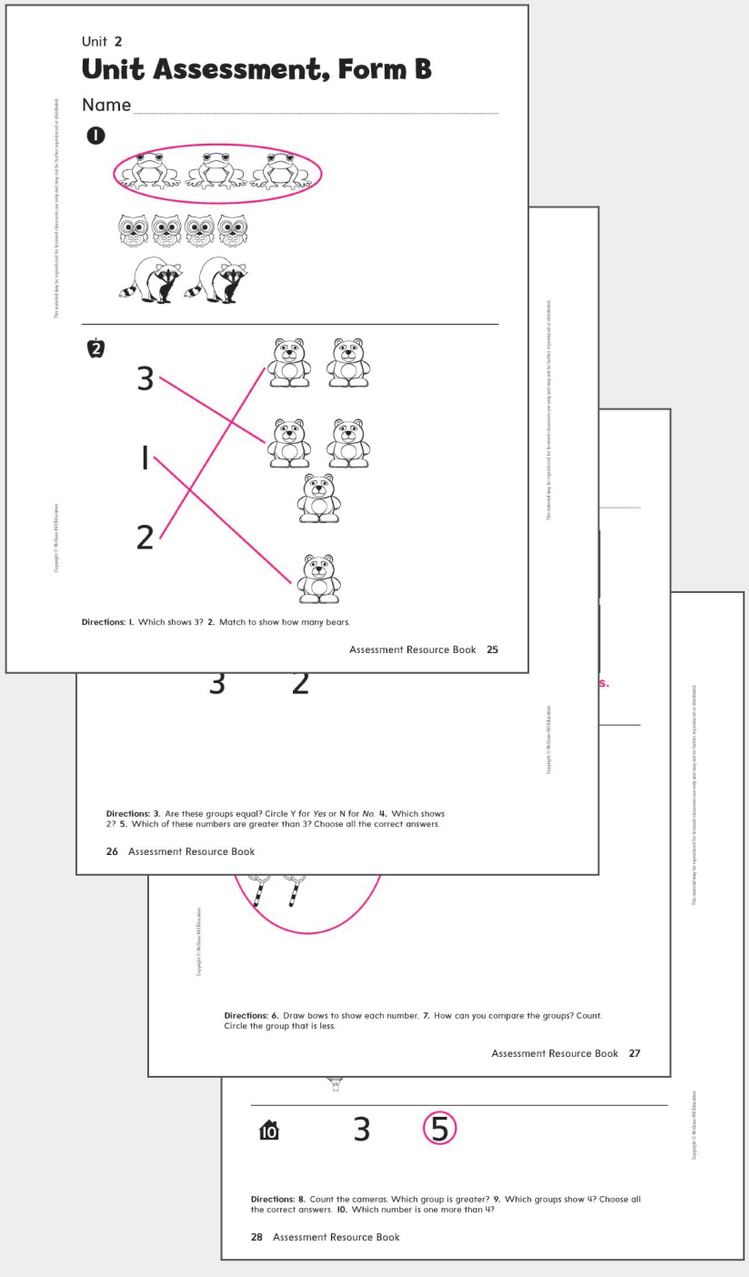
Form B

Item	DOK	Lesson	Intervention Lesson	Standard
1	1	2-1		K.CC.B.4
2	1	2-2		K.CC.B.4
3	2	2-7		K.CC.C.6
4	1	2-3		K.CC.B.4
5	1	2-8		K.CC.C.6
6	2	2-5		K.CC.A.3
7	1	2-8		K.CC.C.6
8	1	2-9		K.CC.C.6
9	1	2-4		K.CC.B.4
10	1	2-6		K.CC.B.4


Unit 2
Unit Assessment, Form B
Name
1
2
3
1
2
Directions: 1. Which shows 3? 2. Match to show how many bears.
Assessment Resource Book 25
Directions: 3. Are these groups equal? Circle Y for Yes or N for No. 4. Which shows 2? 5. Which of these numbers are greater than 3? Choose all the correct answers.
26 Assessment Resource Book
Directions: 6. Draw bows to show each number. 7. How can you compare the groups? Count. Circle the group that is less.
Assessment Resource Book 27
10
3
5
Directions: 8. Count the cameras. Which group is greater? 9. Which groups show 4? Choose all the correct answers. 10. Which number is one more than 4?
28 Assessment Resource Book
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Scope

Kindergarten

Unit 1: Math Is...

- Math Is Mine
- Math Is Exploring and Thinking
- Math Is In My World
- Math Is Explaining and Sharing
- Math Is Finding Patterns
- Math Is Ours

Unit 2: Numbers to 5

- Count 1, 2, and 3
- Represent 1, 2, and 3
- Count 4 and 5
- Represent 4 and 5
- Represent 0
- Numbers to 5
- Equal Groups to 5
- Greater Than and Less Than
- Compare Numbers to 5

Unit 3: Numbers to 10

- Count 6 and 7
- Represent 6 and 7
- Count 8 and 9
- Represent 8 and 9
- Count 10
- Represent 10
- Numbers to 10
- Compare Objects in Groups
- Compare Numbers
- Write Numbers to 3
- Write Numbers to 6
- Write Numbers to 10

Unit 4: Sort, Classify, and Count Objects

- Alike and Different
- Sort Objects into Groups
- Count Objects in Groups
- Describe Groups of Objects

Unit 5: 2-Dimensional Shapes

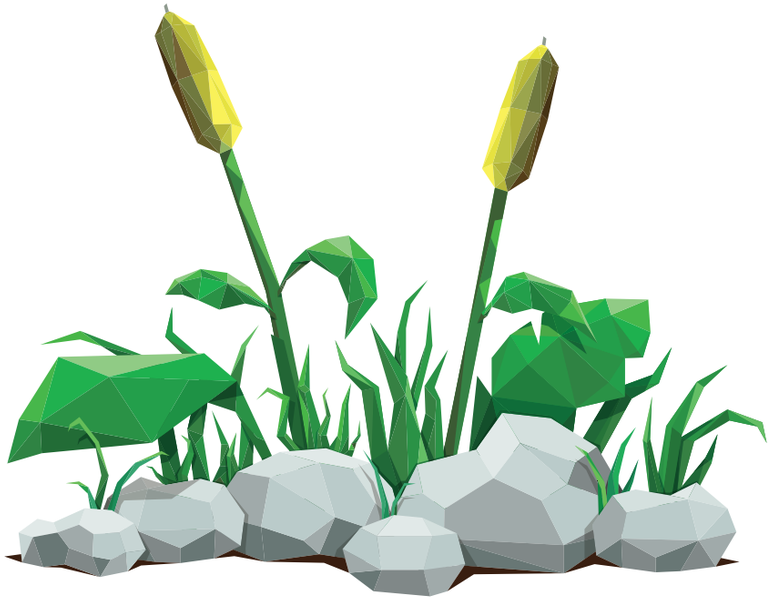
- Triangles
- Squares and Rectangles
- Hexagons
- Circles
- Position of 2-Dimensional Shapes

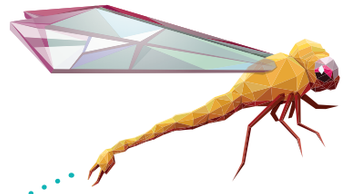
Unit 6: Understand Addition

- Represent and Solve Add To Problems
- Represent and Solve More Add to Problems
- Represent and Solve Put Together Problems
- Represent and Solve Addition Problems
- Represent and Solve More Addition Problems

Unit 7: Understand Subtraction

- Represent Take Apart Problems
- Represent and Solve Take From Problems
- Represent and Solve More Take From Problems
- Represent and Solve Subtraction Problems
- Represent and Solve Addition and Subtraction Problems





Unit 8: Addition and Subtraction Strategies

- Add within 5
- Subtract within 5
- Ways to Make 6 and 7
- Ways to Decompose 6 and 7
- Ways to Make 8 and 9
- Ways to Decompose 8 and 9
- Ways to Make 10
- Ways to Decompose 10

Unit 9: Numbers 11 to 15s

- Represent 11, 12, and 13
- Make 11, 12,and 13
- Decompose 11, 12, and 13
- Represent 14 and 15
- Make 14 and 15
- Decompose 14 and 15

Unit 10: Numbers 16 to 19

- Represent 16 and 17
- Make 16 and 17
- Decompose 16 and 17
- Represent 18 and 19
- Make 18 and 19
- Decompose 18 and 19

Unit 11: 3-Dimensional Shapes

- 2-Dimensional and 3-Dimensional Shapes
- Cubes
- Spheres
- Cylinders
- Cones
- Describe Solids

Unit 12: Count to 100

- Count by 1s to 50
- Count by 1s to 100
- Count by 10s to 100
- Count From Any Number to 100
- Count to Find Out How Many

Unit 13: Analyze, Compare, and Compose Shapes

- Compare and Contrast 2-Dimensional Shapes
- Build and Draw 2-Dimensional Shapes
- Compose 2-Dimensional Shapes
- Compare and Contrast 3-Dimensional Shapes
- Build 3-Dimensional Shapes
- Describe 3-Dimensional Shapes in the World

Unit 14: Compare Measurable Attributes

- Describe Attributes of Objects
- Compare Lengths
- Compare Heights
- Compare Weights
- Compare Capacity