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**Summer Scholars  
Mathematics  
Rising 1st Grade  
(Spanish)**

**This sample includes the following:**

**Management Guide pages**

- Cover and Table of Contents (3 pages)
- How to Use This Resource pages (4 pages)
- Grade Level Details pages (6 pages)

**Teacher's Guide pages**


- Cover (1 page)
- Days 3–4 Overview (1 page)
- Day 3 Lesson (5 pages)
- Day 4 Lesson (3 pages)

**Student Guided Practice Book pages**

- Cover (1 page)
- Day 3 Student Pages (7 pages)
- Day 4 Student Pages (5 pages)

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# SUMMER Scholars

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## Mathematics

# Management Guide



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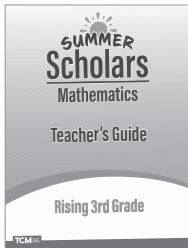
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# How to Use This Resource

The *Summer Scholars Mathematics* curriculum has been designed to meet the needs of summer learning programs. Scaffolded lessons, mathematical discourse, and STEAM activities are presented in a flexible format to make learning (and teaching) fun and effective for everyone.

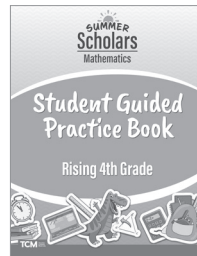
## What's Included?

### Teacher's Guide



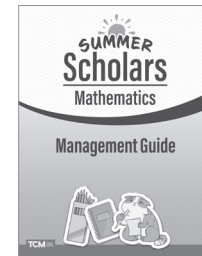
The daily lessons enhance instruction with research-based mathematics instructional practices.

### Student Guided Practice Book



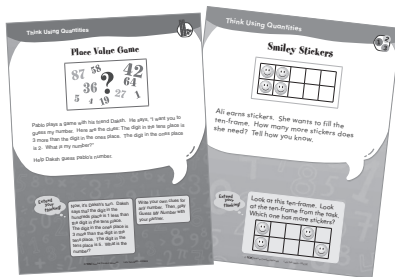
This book encourages students' mathematical fluency with multiple opportunities to apply learning.

### Management Guide



This guide helps teachers plan effectively with flexible lesson pacing and a scope and sequence designed specifically for varied summer settings.

## 12 Mathematical Discourse Task Cards



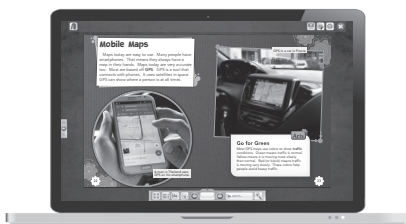
These cards provide rich problem-solving tasks for students to solve and discuss collaboratively. They are provided in both print and digital format.

## Smithsonian STEAM Readers



These books and the included STEAM challenges foster content-area literacy and encourage students to collaboratively solve real-world problems.

## Digital Resources



These resources increase student engagement and enhance instruction. Family Engagement Letters are provided for a strong school-home connection.

## Classroom Library with 10 Books



These mathematics- and science-focused books inspire curiosity and a love of reading.

# How to Use This Resource *(cont.)*

## Scaffolded Mathematics Instruction

The student-centered Gradual Release of Responsibility model is embedded into each of the mathematics lessons. Within every two-day lesson, the responsibility shifts from the teacher (I Do) to the student (You Do).

**Day 1**  
**STEAM Challenge**

### Making Maps

**Define the Problem**

1. Display pages 4 and 5 in the Making Maps book. Ask students what they see or what they notice about the images.
2. Create two columns on the board or on chart paper, and label them "Type of Map" and "How It's Used." As a group, brainstorm different types of maps and their many uses in everyday life. Record the ideas in the chart. For example, a road map can be used to help people drive from place to place or to plan a road trip in advance.
3. Reveal the STEAM Challenge by reading aloud pages 26–27 of the book. Have students follow along to the STEAM Challenge on page xx of the Student Guided Practice Book.
4. Display *Make a Map* from page xx of the Student Guided Practice Book. Have students summarize the challenge with partners. Summaries should include constraints and criteria.
  - Support students with the following sentence frame to help them summarize: Create a map that \_\_\_\_\_.

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**Vocabulary Activity**

Write the vocabulary words on the board or on chart paper (accurate, compass, Sahara, satellites, sound waves), and discuss their meanings. Show students images related to the words to build context. (Pictures from the book may be used.)

20 min

Icons indicate student groupings: whole group, collaborative, and independent.

Stopwatch icons indicate suggested durations.

**Day 2**  
**Place Value**

### One, Tens, and Hundreds

**Progress Monitoring 8**

1. Have students complete Quick Check on page xx of the Student Guided Practice Book to gauge their progress toward mastery of the learning outcomes.
2. Based on the results of the Quick Check and your observations during the lesson, identify students who may benefit from additional instruction in the learning outcomes. These students should be placed into a small group for reteaching.

**Rotations 8**

Place students into two groups. Work with one group on the Refocus activity while the other group is completing the Practice activity. Rotate after 15 minutes. Work with the second group on the Extend activity while the first group completes the Practice activity.

**Refocus 8**

1. Provide additional practice building concrete examples of place value with base ten blocks. Have students use base ten blocks to see that when there are 10 ones, this is exactly equal to one ten. As you model, have the ten blocks to prove the equality by one-to-one correspondence. Use 10 tens to build a hundreds square. Again, build directly on equality.
2. After these proofs of equality, present this example:
  - Show eight ones with base ten blocks. Write 8.
  - Add two more ones, counting to 10. Write 10, and point out the 1 in the tens place and the 0 in the ones place.
  - Ask students to find one block that is equal to one ten and zero ones. (the ten)
  - Use a ten block and four ones. Ask, "How many ones are there?" (four) "How many tens are there?" (one) "As an equation, that is  $10 + 4$ . How would we write this number?" (14)
3. Support students as they complete Question 1 on Refocus from page xx of the Student Guided Practice Book.

**Extend 8**

1. Have students use patterns to add larger numbers, such as  $8 + 4$ ,  $80 + 40$ , and  $800 + 400$ .
2. Support students as they complete the Extend Learning Task from page xx of the Student Guided Practice Book.

**Practice 8**

- **Refocus Group Practice:** Have students solve Question 2 on Refocus from page xx of the Student Guided Practice Book to reinforce their learning.
- **Extend Group Practice:** Have students complete Independent Practice from page xx of the Student Guided Practice Book to reinforce their learning.

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Each lesson page and student page clearly indicates the instructional day.

Assessment opportunities are provided in every lesson.

**Day 4**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Independent Practice

Directions: Write the number names and/or standard numerals.

Write the number name in words. Remember: Write it like you say it, and use the vocabulary chart to help you with spelling.

**Day 14**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Extend Learning Task

Directions: Using the six digits given, create two three-digit numbers. Subtract them to get as close to zero as possible. For each round, the difference is your score. Remember, zero is the goal, so the lowest score wins!

**Round One**

Digits: 6      2      2      5      1      3

My numbers: \_\_\_\_\_

Difference: \_\_\_\_\_

**Round Two**

Digits: 4      5      7      8      9      1

My numbers: \_\_\_\_\_

Difference: \_\_\_\_\_

**Round Three**

Digits: 9      5      2      5      4      8

My numbers: \_\_\_\_\_

Difference: \_\_\_\_\_

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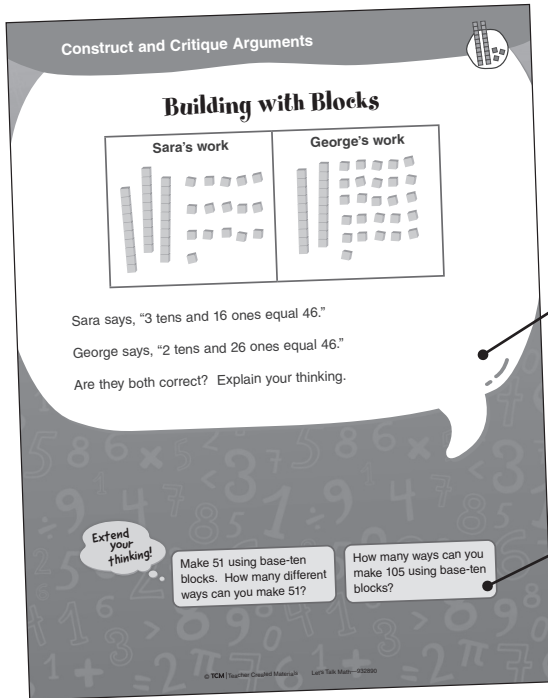
There are many ways for students to access the student activity pages:

- use individual books (purchased separately)
- make copies from provided book
- project pages on an interactive whiteboard
- print pages from digital resources
- share on digital devices (see page 41 for more information)

# How to Use This Resource *(cont.)*

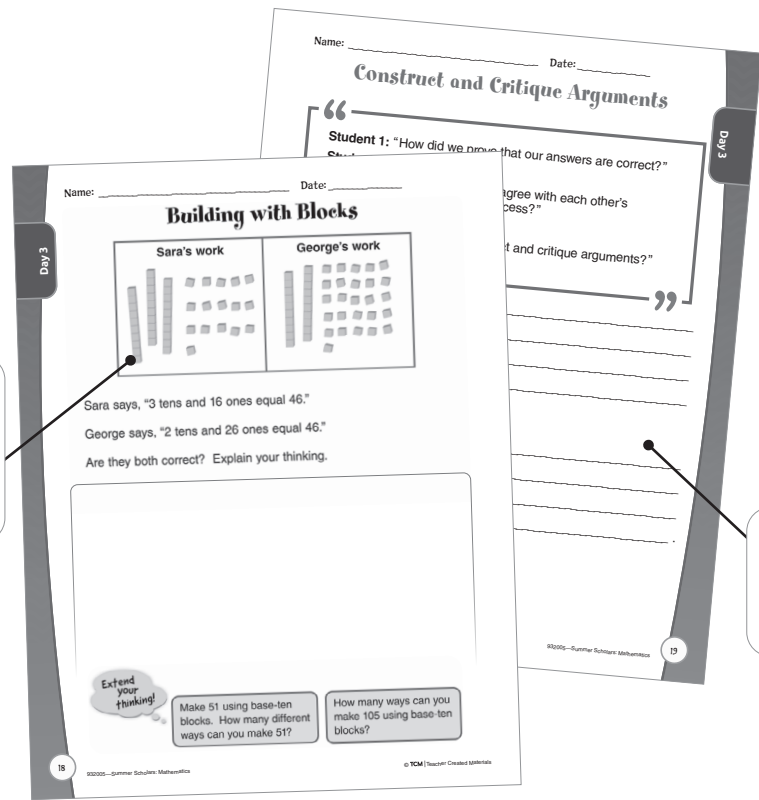
## Mathematical Discourse Task Cards

The Mathematical Discourse Task Cards present rich math problems for students to solve and discuss collaboratively. The three mathematical discourse routines walk students through the problem-solving process.



Cards can be displayed for the whole class.

Extension questions challenge students to think more deeply about the mathematical concept.



Cards are reproduced in the *Student Guided Practice Book* for individual use.

Activity sheets help walk students through the routines.

# How to Use This Resource *(cont.)*

## STEAM Challenges

There are five STEAM Challenges included in each level of *Summer Scholars*. Each challenge is completed over five days to give students ample time to investigate, test, and retest their ideas. In addition to meeting specific criteria, students are also challenged to improve their work over the five days.

**STEAM CHALLENGE**

**Day 1**

**Define the Problem**  
A new student just joined your class. Your teacher has asked you to create a school map for the student.

**Constraints:** Your map must be drawn from a bird's-eye view. You must include color in your map.

**Criteria:** Your map must have a map legend, a compass rose, and drawings of important places at your school. It should be clear and easy to use.

**1 Research and Brainstorm**  
How do maps help people get around? What will different colors mean on your map? What are the important places at your school? Where are they located?

**2 Design and Build**  
Decide what you will include in your map legend. Then, sketch your school as though you were looking from above. Draw and color your map.

**3 Test and Improve**  
Share your map with your friends. Ask them to find a place on your map. Did they find it easily? Is your map clear? How can you improve your map? Improve your map, and present it again.

**4 Reflect and Share**  
Could a new student read and understand your map? How can you make your map easier to follow?

Build background knowledge and spark student interest with engaging readers and short texts.

Students reflect on the process and their final products.

**Days 3-4 Overview**  
**Numbers to 1,000**  
**Learning Outcome**  
Read and write numbers to 1,000 using base ten numerals and number names.

**Focus**  
The following lesson will address these focus questions: What is the form numerals and number names? When can both forms be used? Ask questions on the board or on chart paper and read them aloud.

**Student Misconception**  
This particular standard expands on students' previous knowledge. It is common and incorrect for students to add the word "and" over 100. Watch and listen for this so clarification can be made at that point, which is why the word is not correctly used within why.

**Building with Blocks**  
**Learning Outcome**  
Work collaboratively to solve a problem.

**Making Maps**  
**Learning Outcomes**  
Create and test a map of the school.

**Materials**  
Student Guided Practice Book (pages xx-xx)  
Number Name Cards (numname.pdf)  
base ten blocks  
chart paper  
construction paper

**Day 9**

**Rebuild and Refine**  
Name: \_\_\_\_\_ Date: \_\_\_\_\_  
**Directions:** Gather your materials. Plan your steps. Rebuild your structure. Record the changes you make. Tell why you made those changes.

**Think About It!**  
How do you need to change your steps to rebuild your structure?

Changes Made While Building	Reason for Changes

Activity sheets lead students through the Engineering Design Process.

Materials needed for each challenge are clearly listed. A full list of all STEAM Challenge materials is included in the digital resources.





**SUMMER**  
**Scholars**

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**Mathematics**

**Rising 1st Grade**

**Grade Level Details**

# Rising 1st Grade Scope and Sequence

		<b>Mathematics Skills and Concepts</b> 60–65 minutes per day		<b>Problem-Solving and Discourse</b> 10–15 minutes per day		<b>STEAM</b> 45 minutes per day	
		<b>Mathematics Focus</b>	<b>Standards</b>	<b>Mathematical Practice and Card Title</b>	<b>Standard</b>	<b>Challenge Title and STEAM Step</b>	<b>Standard</b>
Day 1	Empty Jar	Understand the relationship between numbers and quantities. Represent a group of objects with a written numeral.	Think Using Quantities "Smiley Stickers"	Make sense of quantities and their relationships in problems.	<i>Staying Afloat</i> Define the Problem	Make sense of problems and plan, solve, justify, and evaluate solutions.	
Day 2							
Day 3	Chart Away	Use number names and counting sequence to count forward within 100.	Use Tools Strategically "Comparing Cubes"	Consider and use available tools when solving problems.	<i>Staying Afloat</i> Build and Test	Apply mathematics to solve problems arising in everyday life, society, and the workplace.	
Day 4							
Day 5	Chant Forward	Demonstrate understanding that the last number name said tells the number of objects counted. Starting at a given number, count forward within 100.	Construct and Critique Arguments "Bena's Birds"	Use assumptions, definitions, and previously established results to construct arguments.	<i>Staying Afloat</i> Reflect and Share	Make sense of problems and plan, solve, justify, and evaluate solutions.	
Day 6							
Day 7	Build a Number	Recite number names to 100. Generate a number that is one more or one less within 20.	Generalize Your Thinking "Up Next"	Look for and express regularity in repeated reasoning.	<i>Objects in Motion</i> Learn Content, Understand the Challenge, and Brainstorm	Explore how objects move and what happens when they collide.	
Day 8							
					<i>Objects in Motion</i> Design and Build	Apply mathematics to solve problems arising in everyday life, society, and the workplace.	
					<i>Objects in Motion</i> Test and Reflect		

# Rising 1st Grade Scope and Sequence *(cont.)*

Mathematics Skills and Concepts 60–65 minutes per day		Problem-Solving and Discourse 10–15 minutes per day		STEAM 45 minutes per day	
Mathematics Focus	Standards	Mathematical Practice and Card Title	Standard	Challenge Title and STEAM Step	Standard
Day 9	Count and compare sets of objects within 20 using less than, greater than, and equal to.	Think Using Quantities “Bunch of Balloons”	Make sense of quantities and their relationships in problems.	<i>Objects in Motion</i> Redesign and Rebuild	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 10				<i>Objects in Motion</i> Retest and Share	
Day 11	Solve and represent addition within 10.	Think Using Quantities “Dots on Cubes”	Make sense of quantities and their relationships in problems.	<i>Playing with Wind</i> Define the Problem	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 12	Adding Stories			<i>Playing with Wind</i> Design	Use appropriate tools, including real objects and techniques, to solve problems.
Day 13	Scoop and Subtract	Think Using Quantities “Windy Day”	Make sense of quantities and their relationships in problems.	<i>Playing with Wind</i> Build and Test	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 14				<i>Playing with Wind</i> Improve	
Day 15	Compose and decompose numbers within 10. Solve addition and subtraction word problems within 10.	Use Tools Strategically “Math and Science Books”	Consider and use available tools when solving problems.	<i>Playing with Wind</i> Reflect and Share	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 16	Missing Parts			<i>Properties of Matter</i> Learn Content, Understand the Challenge, and Brainstorm	Identify physical characteristics and properties of objects and materials.

# Rising 1st Grade Scope and Sequence

		<b>Mathematics Skills and Concepts</b> 60–65 minutes per day		<b>Problem-Solving and Discourse</b> 10–15 minutes per day		<b>STEAM</b> 45 minutes per day	
		<b>Mathematics Focus</b>	<b>Standards</b>	<b>Mathematical Practice and Card Title</b>	<b>Standard</b>	<b>Challenge Title and STEAM Step</b>	<b>Standard</b>
Day 17		Shake, Shake, Shake!	Decompose numbers less than or equal to 10 in one or more ways.	Analyze the Structure "Bailey's Balloons"	Observe closely to discern a pattern or structure in a problem.	<i>Properties of Matter</i> Design and Build	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 18						<i>Properties of Matter</i> Test and Reflect	
Day 19		Teen Numbers	Use concrete and pictorial models to represent whole numbers within 20.	Construct and Critique Arguments "Tens and Ones"	Use assumptions, definitions, and previously established results to construct arguments.	<i>Properties of Matter</i> Redesign and Rebuild	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 20						<i>Properties of Matter</i> Retest and Share	
Day 21		Make a Teen	Compose and decompose numbers within 20 using tens and ones.	Generalize Your Thinking "Counting with Koi"	Look for and express regularity in repeated reasoning.	<i>Folding Paper</i> Define the Problem	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 22						<i>Folding Paper</i> Design	Correctly name shapes regardless of their orientations or overall sizes.
Day 23		Sort and Count	Collect, classify, and sort objects into given categories.	Generalize Your Thinking "Sorting Shapes"	Look for and express regularity in repeated reasoning.	<i>Folding Paper</i> Build and Test	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 24						<i>Folding Paper</i> Improve	
Day 25		Culminating Activity				<i>Folding Paper</i> Reflect and Share	Make sense of problems and plan, solve, justify, and evaluate solutions.

# Rising 1st Grade STEAM Challenges and Materials

This chart includes descriptions and needed materials for the five STEAM Challenges.

Challenge Name	Description	Materials
<i>Staying Afloat</i> (reader)	Teams make boats that stay afloat for at least five minutes.	<ul style="list-style-type: none"> <li>• aluminum foil</li> <li>• bucket, kiddie pool, or other container</li> <li>• paper</li> <li>• paper bowls/ cups</li> <li>• plastic straws</li> <li>• stapler</li> <li>• tape</li> </ul>
Objects in Motion	Groups make toy wrecking balls.	<ul style="list-style-type: none"> <li>• building blocks (5–10)</li> <li>• foil</li> <li>• paper towel tubes (4–6)</li> <li>• plastic and/ or paper cups (5–10)</li> <li>• paper bowls/ cups</li> <li>• small, round fruit, such as an apple or orange (1)</li> <li>• plastic straws (5–10)</li> <li>• 1+ yards (1+ meters) string</li> <li>• toy cars (2)</li> </ul>
<i>Playing with Wind</i> (reader)	Teams make devices to see which way the wind blows.	<ul style="list-style-type: none"> <li>• chenille sticks</li> <li>• craft sticks</li> <li>• dowels or sticks</li> <li>• paper cups</li> <li>• stapler</li> <li>• string</li> <li>• tape</li> <li>• tissue paper</li> <li>• yarn</li> </ul>
Properties of Matter	Groups build towers as tall as they can.	<ul style="list-style-type: none"> <li>• buttons (8)</li> <li>• modeling clay (homemade option: 1 part baby lotion to two parts cornstarch)</li> <li>• straws, cut into thirds (5)</li> </ul>
<i>Folding Paper</i> (reader)	Teams design and fold envelopes.	<ul style="list-style-type: none"> <li>• envelope examples</li> <li>• glue</li> <li>• paper</li> <li>• tape</li> </ul>

# Rising 1st Grade Classroom Library Information

This chart includes important information about the books included in the classroom library.

Book Title	Lexile® Measure	*Guided Reading Level	Summary
<i>Tails: Measurement</i>	130L	E	Some tails are long. Some tails are short. Measure to find out whose tail is whose.
<i>Baby Animals</i>	10L	LB	It is time to learn about baby animals.
<i>Birdhouses: Shapes</i>	170L	D	Some birdhouses have circles. Some have squares. What 2-D shapes do you see in this birdhouse?
<i>Growing Up</i>	140L	E	It is time to learn how living things grow and change.
<i>Here Comes the Sun</i>	90L	C	It is time to learn about the sun.
<i>Find the Money: Financial Literacy</i>	170L	E	Every coin has a value. What is its value? Learn about coins and what you can do with them.
<i>Vet: Comparing Groups</i>	100L	D	Vets are doctors. They take care of animals. Compare groups of vets and animals.
<i>Too Much Trash!</i>	20L	C	It is time to learn about keeping Earth clean.
<i>Camping: 2-D Shapes</i>	90L	C	You can see shapes all around you when you camp. Take a look at some 2-D shapes!
<i>What Is the Weather?</i>	160L	C	It is time to learn about weather.

\*These titles have been officially leveled using the F&P Text Level Gradient™ Leveling System.



# SUMMER Scholars

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## Mathematics

## Teacher's Guide

## Rising 1st Grade

# Days 3–4 Overview

## Chart Away

### Learning Outcome

- Count to 100 by tens.

### Focus

The following lesson will address this focus question: *How can we use a hundreds chart to count by tens?* You may wish to write the focus question on the board or on chart paper and read it aloud to students.

### Student Misconception

Some students may have difficulty keeping track of a number that has already been counted and may try to recount, starting the counting sequence over again. Some students may not recognize correct number patterns or may invent incorrect number patterns such as twenty-eight, twenty-nine, twenty-ten.

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## Mathematical Discourse

### Learning Outcome

- Use appropriate tools strategically to solve problems. Understand that tools can be physical like a ruler or mental such as strategic thinking.

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## Staying Afloat

### Learning Outcome

- Build and test a boat.

### Materials

- *Student Guided Practice Book* (pages 16–27)
- *Comparing Cubes* task card
- *Staying Afloat* book
- numeral cards (numeral.pdf)
- hundreds chart (hundchart.pdf)
- dot cards (dotcards.pdf)
- teddy bears counters (or other small counters)
- paper bags
- connecting cubes
- crayons or markers

### Materials per STEAM Group

- aluminum foil
- bucket, kiddie pool, or other container
- paper
- paper bowls/cups
- plastic straws
- stapler
- tape



# Chart Away

## Warm-Up

1. Invite students to sit in a circle around you.
2. Say, "I have teddy bear (or other) counters, and I am going to practice counting them." Drop three teddy bear counters into a paper bag one by one.
3. Invite students to count along as you drop each teddy bear counter into the bag. Say, "Count with me: 1, 2, 3. We dropped three teddy bear counters into the bag."
4. Say, "Now, let's empty the bag and count the teddy bear counters that come out." Empty the bag with the teddy bear counters inside.
5. Say, "Count with me: 1, 2, 3. We emptied three counters out of the bag."
6. Next, provide students with paper bags, and have them practice dropping teddy bear counters into their own bags and emptying the bags again.
7. Say, "Drop four teddy bear counters into your bag. Let's count together: 1, 2, 3, 4. Now, empty your bag and count the teddy bear counters: 1, 2, 3, 4." Repeat this process several times with one, two, and five teddy bear counters.
8. Say, "Today, we will practice counting to 100."

## Language and Vocabulary



1. Print *Numeral Cards* from the digital resources. Post the decade numeral cards (10, 20, 30, 40, 50, 60, 70, 80, 90, 100). Explain that *decades* are numbers that represent a group of 10, or tens.
2. Say the decade number names aloud.
3. Have students chant the number names of the decades with you, beginning with 10, 20, 30, and up to 100.

# Chart Away

**I Do**  

1. Say, "Today, we'll use a hundreds chart to count by tens." Model using a large hundreds chart, or use the *Hundreds Chart* from the digital resources.
2. Say, "First, let's count to 10 together. Count with me as I point: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. We counted 10 numbers on the chart." Point to and circle the 10 on the hundreds chart.
3. Say, "There are 10 numbers in this row. How many numbers do you think will be in the next row?" (10) "How many numbers do you think will be in the row after that? I'm sure it will be 10 again. On the hundreds chart, we can count by ones and tens. We can count by tens because each row has 10; so, instead of counting each number, we can count each row."

**Support for Language Learners:** As you model, emphasize the number names, especially the decade terms. Reinforce students' understanding by asking them to count by tens to 100. Refer them to the numeral cards and hundreds chart.

4. Say, "Let's look at the numbers in the tens column."
5. Say, "Let's count by tens, moving down the column starting with 10. Count with me: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100. We counted to 100 by tens." As you count by tens, move your finger across each row of the decade term you are counting. Students should see that you are counting across 10 more numbers at each decade.

6. Say, "What do you notice about counting by tens?" (*Counting by tens is faster and has a pattern.*)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# Chart Away

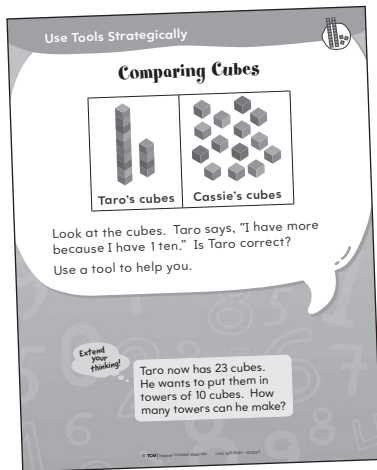
## We Do

1. Display *Chart Counting* from page 16 of the *Student Guided Practice Book*. Say, "We'll use the hundreds chart to count by tens."
2. Pair students and say, "Who can explain where to find the tens on the hundreds chart? Turn and show your partner." Invite a student to share where to find the tens on the hundreds chart.
3. Say, "Let's place a cube on each ten as we count." Start at the top with the number 10, mark it, and continue counting together to 40.
4. Say, "Now, we will count together by tens to 100: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100. Turn to your partner and tell how you counted to 100."

## You Do

1. Have students complete *Point and Count* from page 17 of the *Student Guided Practice Book*. Tell students they will take turns with partners to count to 100 by tens.
2. Allow time for students to share what they noticed about counting by tens. Students may say counting by tens is faster than counting by ones.

# Use Tools Strategically



## Understand the Strategy

The Use Tools Strategically practice/process stems from *use appropriate tools strategically*. As this practice/process is introduced, it is important that students understand that tools are not always physical. Tools can be as simple as mental math or using your brain. The word *strategically* is emphasized because sometimes mathematicians do not have access to the most appropriate tools and must rely on their strategic thinking to identify replacement tools. For example, if a ruler or tape measure is not available to measure the length of something, sticky notes or blank paper could be used to get approximate measurements. Those might not be the most appropriate tools, but with strategic thinking, the item can be measured. In these tasks, suggested tools are offered for students to consider using. Sometimes, the tasks don't allow students to use traditional tools. This forces them to think strategically.

## Procedure

1. Display the *Comparing Cubes* task card, and read aloud the text. Remind students to use the Understand and Plan, Share and Discuss, and Reflect and Write routines as they complete the task. Review these routines if needed. (See pages 21–26 in the *Management Guide*.)
2. Allow time for students to collaborate with partners as they follow the routines and work through the task from pages 18–19 of the *Student Guided Practice Book*. (Students will complete the extension on the next day.)

**Answer:** Taro is incorrect. They have the same amount because  $14 \text{ ones} = 1 \text{ ten } 4 \text{ ones}$ .

**Possible Misconception:** Because Taro's cubes are arranged in towers, students might think he has more simply because of the height of the towers.

## Language Support

- **Tier 3:** cubes
- **Tier 2:** towers, tool
- **Tier 1:** more

## Scaffolding

Provide 28 cubes for students. Ask them to put these cubes in two equal groups. Have students then compare the number of cubes by taking one cube from each pile and lining them up. Repeat until all the cubes have been matched.

# Staying Afloat

## Materials and Preparation

- Prepare all materials for the STEAM Challenge (aluminum foil, bucket or other container, paper, paper bowls/cups, plastic straws, stapler, tape).

## Read Aloud

1. Review the information from the previous day's read-aloud.
2. Play the *Staying Afloat* audiobook located in the digital resources library. Pause periodically to discuss any questions students may have.

## Build

1. Have groups review their *Team Plans* activity sheets from the previous day. Explain to students that when they build their models, they must follow their design plans. Reassure them they will have an opportunity to change and improve their design plans after they present them. Review classroom expectations for working with materials. Then, give teams time to gather materials and build boats.
2. Have students complete *Think about It* from page 20 of the *Student Guided Practice Book*. Explain that reflection is an important part of the engineering design process. Read aloud numbers 1 and 2 on the activity sheet, and have students mark their responses. Ask volunteers to share.

## Test

1. Gather teams for testing. Explain that teams will offer feedback after the test. Use *Friendly Feedback* from page 21 of the *Student Guided Practice Book* to review best practices for giving feedback.
2. Have students use *Toy Boat Test Results* from page 22 of the *Student Guided Practice Book* to record their results as a team. Allow teams to present their floating devices. Ask volunteers to give friendly feedback.
3. Ask students to reflect on their observations of other groups as well. Use the following questions to guide the discussion: What designs worked well? Why? What materials worked best for the challenge? Why? After watching the other floating devices, what designs and materials would you use if you could do the challenge again?
4. To further challenge students, ask students to identify other types of floating devices people use or places they like to float. Discuss the different types of designs that have to be created for each purpose. Discuss what would happen if something that was supposed to float did not float.

# Chart Away

## Progress Monitoring

1. Have students complete the *Quick Check* from page 23 of the *Student Guided Practice Book* to gauge student progress toward mastery of the learning outcomes.
2. Based on the results of the *Quick Check* and your observations during the lesson, identify students who may benefit from additional instruction in the learning outcomes. These students should be placed into a small group for reteaching.

## Rotations

Place students in two groups. Work with one group on the Refocus activity while the other group is completing the Practice activity. Rotate after 15 minutes. Work with the second group on the Extend activity while the first group completes the Practice activity.

### Refocus

1. Revisit the focus question for the lesson: *How can we use a hundreds chart to count by tens? Say, "Today, we will use a hundreds chart to count by tens to 100." Explain that each row on the chart represents a group of 10, or a ten. Tell students that since there are 10 numbers in each row, each column represents another ten. Say, "Let's count by tens to 100 while looking at the hundreds chart. Count with me: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100." Invite a student to lead in counting by tens to 100. Students will then work with partners to count by tens to 100, coloring each ten. Have students take turns counting.*
2. Support students as they complete *Refocus* from page 24 of the *Student Guided Practice Book*. Say, "Let's look at the problem together." Invite a student to share where to begin counting by tens on the hundreds chart. As students count by tens, ask, "What number comes next?" Continue counting by tens to 100.

### Extend

1. Support students as they complete the *Extend Learning Task* from page 25 of the *Student Guided Practice Book*.
2. Students will further practice counting by tens to 100 by counting with dot cards. Be sure students have an understanding of decade counting.

### Practice

- **Extension Group Practice:** Have students complete *Independent Practice* from page 26 of the *Student Guided Practice Book* to reinforce their learning.

# Chart Away

## Math in the Real World



1. Display *Math in the Real World: Feed the Animals* from page 27 of the *Student Guided Practice Book*. Read the task aloud: *Fido's family gives him bones as treats. Fido gets the bones in groups of 10. How many bones does Fido have? Hint: Count in groups of 10.*
2. Ask students to think about what information they need to solve the task and what the task is asking them to do. Ask students to work with partners. Then, invite a few students to share their thinking aloud.
3. Have students work in pairs to complete the *Math in the Real World: Feed the Animals* activity sheet.
4. As students are working, circulate and ask focusing, assessing, and advancing questions:
  - What do we know about Fido?
  - What are we trying to find out about the bones?
  - How can you explain your reasoning?

### Support for Language Learners:

- *I can use \_\_\_\_\_ to help me solve this problem.*
  - *There are \_\_\_\_\_ bones.*
  - *I can solve this problem by \_\_\_\_\_.*
5. Observe how students are solving the task, and choose a few groups who solved the problem in different ways to share their solutions and reasoning. Try to have the solutions move from concrete representations to more abstract representations. Make sure students explain their reasoning as they are sharing their solutions.
  6. As groups are sharing their solution paths, reasoning, and strategies, ask questions:
    - How is this strategy similar to one we have seen in a previous task?
    - Do you agree or disagree with the solution path and reasoning? Why?

# Use Tools Strategically

## Mathematical Discourse Card Extension

1. Allow time for student to complete the routines for the *Comparing Cubes* task from the previous day.
2. Have students work in pairs to complete the extension.
  - Taro now has 23 cubes. He wants to put them in towers of 10 cubes. How many towers can he make? (*2 full towers*)

## STEAM Challenge

# Staying Afloat

## Materials and Preparation

- Review all designs.
- Prepare supplies for rebuilding (aluminum foil, bucket or other container, paper, paper bowls/cups, plastic straws, stapler, tape).

## Read Aloud

1. Review the information from the previous day's read-aloud.

## Improve

1. Have groups review the feedback they received on the previous day of instruction.
2. Provide time for teams to brainstorm ways to improve their designs based on test results and feedback. Refer students back to their *Team Plans* activity sheets. Ask them to sketch their improved designs and explain any changes. Have students submit improved designs for approval before building.
3. Have teams gather materials to improve their designs. Then, have them retest their floating devices.
4. Have students complete numbers 3 and 4 on *Think about It* from page 20 of the *Student Guided Practice Book*.



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# Contemos con tablas

**Instrucciones:** Cuenta usando la tabla de centenas.

- 1 Cuenta por decenas hasta 40.
- 2 Cuenta hasta 100 por decenas.

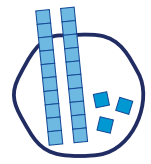
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# Señala y cuenta

**Instrucciones:** Colorea las decenas mientras las cuentas.

- 1 Cuenta por decenas hasta 20.
- 2 Cuenta por decenas hasta 50.
- 3 Cuenta por decenas hasta 100.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



# Comparar cubos



Mira los cubos. Taro dice: "Tengo más porque tengo 1 decena". ¿Taro tiene razón?  
Usa una herramienta como ayuda.

Empty rounded rectangular box for student work.

# Usa herramientas estratégicamente

## Reflexiona y escribe

**Escribe o dibuja:** Para usar herramientas estratégicamente,

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¡Amplia  
tu  
razonamiento!

Ahora, Taro tiene 23 cubos. Quiere ordenarlos en torres de 10. ¿Cuántas torres podrá armar?

# Piénsalo

**Instrucciones:** Tilda *sí* o *no*. Encierra las palabras. Completa los espacios en blanco.

1. En mi equipo nos escuchamos.  *sí*  *no*

2. Di ideas para el diseño.  *sí*  *no*

3. Nuestro primer plan (funcionó/no funcionó) porque

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Nuestro segundo plan fue (mejor/peor).

5. Aprendí

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. Fue difícil cuando

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Nombre: \_\_\_\_\_ Fecha: \_\_\_\_\_

# Crítica constructiva

**Instrucciones:** Haz preguntas. Da ideas. Usa estas oraciones para empezar.

Día 3

## Aclarar

¿Cómo hiciste para \_\_\_\_\_  
\_\_\_\_\_?

## Comentarios cálidos

Me gusta \_\_\_\_\_ porque \_\_\_\_\_.

## Comentarios tibios

Tal vez quieras intentar \_\_\_\_\_  
\_\_\_\_\_.

Nombre: \_\_\_\_\_ Fecha: \_\_\_\_\_

# Botes de juguete: resultados de las pruebas

**Instrucciones:** Marca la tabla de la prueba sobre los botes de juguete. Encierra *sí* o *no*.

Equipo	¿El bote flota?		¿Flota cinco minutos?	
1	sí	no	sí	no
2	sí	no	sí	no
3	sí	no	sí	no
4	sí	no	sí	no

Dibuja el mejor bote de juguete.





# Repaso rápido

**Instrucciones:** Cuenta hasta 100 por decenas. Colorea las decenas con un color diferente.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Nombre: \_\_\_\_\_ Fecha: \_\_\_\_\_

# Concéntrate

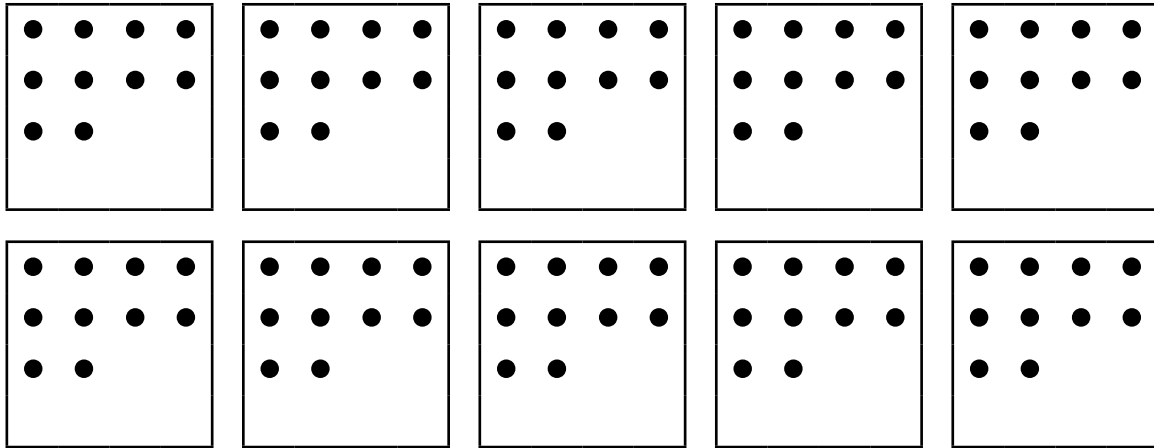
**Instrucciones:** Cuenta hasta 100 por decenas. Encierra en un círculo las decenas mientras cuentas.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

# Tarea de aprendizaje continuo

**Instrucciones:** Cuenta los puntos. Después, completa el marco de la oración.

1



¿Cuántos hay? \_\_\_\_\_

2 Conté hasta 100 por decenas. Usé \_\_\_\_\_ tarjetas para llegar a 100.

# Práctica independiente

**Instrucciones:** Toma turnos con un compañero para formar grupos de 10 con fichas.

- 1 Forma 2 grupos de 10.
- 2 Forma 3 grupos de 10.
- 3 Forma 4 grupos de 10.
- 4 Forma 5 grupos de 10.

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# Alimenta los animales

La familia de Fido le da huesos como premios. Le dan los huesos en grupos de 10. ¿Cuántos huesos tiene Fido?  
**Pista:** Cuenta en grupos de decenas.

**Muéstralo**

10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10	10	10

**Resuélvelo**

**Explicalo**