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Summer Scholars Mathematics Rising 3rd Grade

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)
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- Day 4 Student Pages (5 pages)

To **Create** a World in which **Children** Love to **Learn!**

SUMMER Scholars

Mathematics

Management Guide

Table of Contents

Table of Contents *(cont.)*

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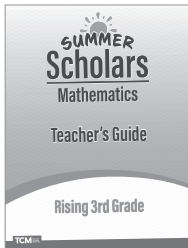
The daily lessons enhance instruction with research-based mathematics instructional practices.

Student Guided Practice Book
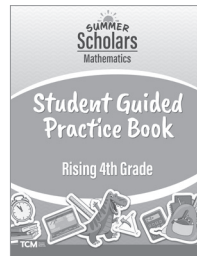
This book encourages students' mathematical fluency with multiple opportunities to apply learning.

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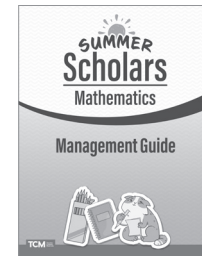
This guide helps teachers plan effectively with flexible lesson pacing and a scope and sequence designed specifically for varied summer settings.

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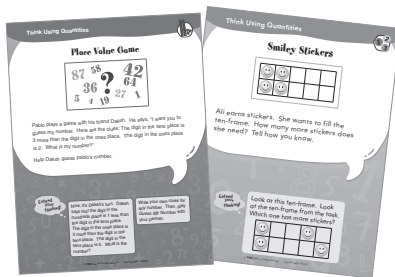
These cards provide rich problem-solving tasks for students to solve and discuss collaboratively. They are provided in both print and digital format.

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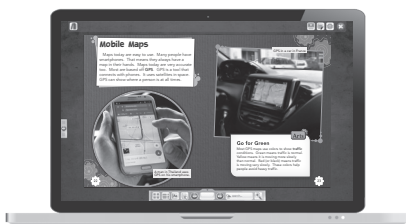
These resources increase student engagement and enhance instruction. Family Engagement Letters are provided for a strong school-home connection.

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).

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

Stopwatch icons indicate suggested durations.

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

Assessment opportunities are provided in every lesson.

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.

Construct and Critique Arguments

Building with Blocks

Sara's work	George's work

Sara says, "3 tens and 16 ones equal 46."

George says, "2 tens and 26 ones equal 46."

Are they both correct? Explain your thinking.

Extend your thinking!

Make 51 using base-ten blocks. How many different ways can you make 51?	How many ways can you make 105 using base-ten blocks?

© TCM | Teacher Created Materials   Let's Talk Math—932890

Cards can be displayed for the whole class.

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

Name: _____   Date: _____

Construct and Critique Arguments

Student 1: "How did we prove that our answers are correct?"

...agree with each other's ...cess?"

...t and critique arguments?"

Day 3

832005—Summer Scholars: Mathematics   19

Name: _____   Date: _____

Building with Blocks

Day 3

Sara's work	George's work

Sara says, "3 tens and 16 ones equal 46."

George says, "2 tens and 26 ones equal 46."

Are they both correct? Explain your thinking.

Extend your thinking!

Make 51 using base-ten blocks. How many different ways can you make 51?	How many ways can you make 105 using base-ten blocks?

18   932005—Summer Scholars: Mathematics   © TCM | Teacher Created Materials

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.

> 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.

Days 3–4 Overview

Numbers to 1,000

Learning Outcome
- Read and write numbers to 1,000 using base ten numerals a...

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

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

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 blo...
- chart paper
- constructi...

Name: _____

Date: _____

Rebuild and Refine

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?

Steps to Rebuild
_____
_____
_____

Changes Made While Building	Reason for Changes

Day 9

SUMMER Scholars

Mathematics

Rising 3rd Grade

Grade Level Details

Rising 3rd Grade Scope and Sequence

	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 1	Ones, Tens, and Hundreds	Understand that the digits of a three-digit number represent hundreds, tens, and ones; and use standard and expanded forms to represent three-digit numbers.	Think Using Quantities "Place Value Game"	Make sense of quantities and their relationships in problems.	*Making Maps* Define the Problem	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 2					*Making Maps* Design	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 3	Numbers to 1,000	Understand that the digits of a three-digit number represent hundreds, tens, and ones; and read and write numbers to 1,000 using standard and word form.	Construct and Critique Arguments "Building with Blocks"	Use assumptions, definitions, and previously established results to construct arguments.	*Making Maps* Build	
Day 4					*Making Maps* Test and Improve	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 5	Comparing Numbers	Use place value to compare three-digit numbers using symbols and comparative language.	Analyze the Structure "Saving Money"	Observe closely to discern a pattern or structure in a problem.	*Making Maps* Reflect and Share	
Day 6					*Piece by Piece* Learn Content, Understand the Challenge, and Brainstorm	Identify how an object made of pieces can be disassembled and made into a new object.
Day 7	Adding within 100	Use strategies to fluently add within 100.	Think Using Quantities "Pamela's Pops"	Make sense of quantities and their relationships in problems.	*Piece by Piece* Design and Build	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 8					*Piece by Piece* Test and Reflect	

Rising 3rd Grade Scope and Sequence *(cont.)*

Day	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	Subtracting within 100	Use strategies to fluently subtract within 100.	Think Using Quantities "Baseball Cards"	Make sense of quantities and their relationships in problems.	*Piece by Piece* Redesign and Rebuild	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 10					*Piece by Piece* Retest and Share	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 11	Adding within 1,000	Add within 1,000 using concrete models, drawings, or other strategies.	Use Tools Strategically "Aisha's Beads"	Consider and use available tools when solving problems.	*Living in Sunlight Extremes* Define the Problem	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 12					*Living in Sunlight Extremes* Design	Recognize and draw shapes having specified attributes.
Day 13	Subtracting within 1,000	Subtract within 1,000 using concrete models, drawings, or other strategies.	Use Tools Strategically "Donating Canned Goods"	Consider and use available tools when solving problems.	*Living in Sunlight Extremes* Build and Test	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 14					*Living in Sunlight Extremes* Improve	
Day 15	Solving Two-Step Word Problems: Same Operations	Add and subtract to solve two-step word problems within 100.	Think Using Quantities "Missing Recess"	Make sense of quantities and their relationships in problems.	*Living in Sunlight Extremes* Reflect and Share	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 16					*Volcanoes* Learn Content, Understand the Challenge, and Brainstorm	Develop a model to represent the shapes and kinds of land and bodies of water in an area.

Rising 3rd 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 17	Bar Graphs	Use and interpret bar graphs to solve problems involving addition and subtraction.	Analyze the Structure "Outside Fort"	Observe closely to discern a pattern or structure in a problem.	*Volcanoes* Design and Build	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 18					*Volcanoes* Test and Reflect	
Day 19	Measuring Length	Use appropriate tools to measure the lengths of objects in standard units, and describe the relationship between the units and the sizes of the objects.	Construct and Critique Arguments "Robert's Ruler"	Use assumptions, definitions, and previously established results to construct arguments.	*Volcanoes* Redesign and Rebuild	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 20					*Volcanoes* Retest and Share	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 21	Telling Time	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. appropriately.	Mathematize the Situation "Only Time Will Tell"	Apply mathematics to solve problems in everyday life.	*Dealing with Wildfires* Define the Problem	Make sense of problems and plan, solve, justify, and evaluate solutions.
Day 22					Dealing with Wildfires Design	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
Day 23	Shapes and Their Attributes	Recognize and draw shapes based on their defining attributes, such as the number of angles or equal sides.	Think Using Quantities "Guess Farrah's Shape"	Make sense of quantities and their relationships in problems.	*Dealing with Wildfires* Build and Test	Apply mathematics to solve problems arising in everyday life, society, and the workplace.
Day 24					*Dealing with Wildfires* Improve	
Day 25	Culminating Activity				*Dealing with Wildfires* Reflect and Share	Make sense of problems and plan, solve, justify, and evaluate solutions.

Rising 3rd Grade STEAM Challenges and Materials

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

Challenge Name	Description	Materials
Making Maps (reader)	Teams create school maps for a new student.	• colored pencils • crayons • graph paper • grid chart paper (two sheets per team) • markers • pencils
Piece by Piece	Students create building toys for kids to use.	• binder clips (10) • cardboard tubes (10) • clothespins (10) • craft sticks (20) • pipe cleaners (20)
Living in Sunlight Extremes (reader)	Teams build visors to block sunlight.	• cardboard pieces • craft sticks • glue • paper towel tubes • scissors • straws • string • tape
Volcanoes	Students build party hats for a volcano-themed birthday party.	• construction paper (various colors) • cotton balls (5–10) • tissue paper (volcano colors; 1–2 of each) • yarn and/or ribbon (volcano colors)
Dealing with Wildfires (reader)	Teams draw designs for the land around their homes that will keep them safe from wildfires.	• chart paper (two sheets per team) • drawing materials

Rising 3rd 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
The British Museum: Classify, Sort, and Draw Shapes	540L	P	Welcome to the British Museum! It is built for exploring. Look for hidden shapes in the museum and its treasures. Try to find them all as you learn more about this special place!
Earth and Moon	470L	J	Earth is always moving. The moon is always moving, too. It travels around Earth. The moon looks different each night because of its movement.
Blast Off to Camp: Time	610L	O	The countdown is on. Isabella is heading to Space Camp! It's only a week long, so she wants to make the most of her time. Blast off to camp, and find out what it takes to be an astronaut!
Fields, Rinks, and Courts: Partitioning Shapes	630L	O	Before the kickoff, jump ball, or coin toss of a game, the playing surface must be designed. After all, each sport has a surface with a purpose! Explore how partitioned shapes are important to the fields, rinks, and courts of popular sports.
Habitats	460L	N	A habitat gives shelter to plants and animals. It's a living thing's home. It also helps them survive. There are many different types of habitats on Earth.
How Sound Moves	500L	K	Sounds are all around us. Some are loud. Others are quiet. Some sounds are high. Others are low. The sounds that we hear travel as sound waves.
The Lemonade Stand: Financial Literacy	580L	Q	On a hot summer day, nothing tastes better than an ice-cold glass of lemonade. At least, that is what Juan and Rose think! But it is not all about sunshine and sugar. Juan and Rose need to learn more about starting a business. Will they make money or just make a mess?
Pollination	510L	N	Living things depend on one another. Insects, water, and wind help plants grow new plants. They have an important role in nature. They work together to keep one another alive.
Lasers: Measuring Length	550L	R	Lasers are brighter than the sun, strong enough to reach the moon, and sharp enough to cut tiny holes. Get laser-focused while you measure lengths. Find out what makes these bright beams light up.
Water Cycle	480L	O	Every living thing needs water to survive. Water is an important part of life. There is water all around us. It moves through the water cycle. It brings water to all parts of the planet.

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

SUMMER Scholars

Mathematics

Teacher's Guide

Rising 3rd Grade

TCM | Teacher Created Materials

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 difference between writing standard form numerals and number names? When can both forms be helpful?* You may wish to write the focus questions on the board or on chart paper and read them aloud to students.

Student Misconception

This lesson expands on students' previous knowledge of basic numbering skills through 100. It is common and incorrect for students to add the word *and* when reading and/or writing number names over 100. Watch and listen for this so clarification can be made. The word *and* is used to denote a decimal point, which is why the word is not correctly used within whole numbers.

. . . .

Mathematical Discourse

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 16–27)
- Number Name Cards (numname.pdf)
- base-ten blocks
- chart paper
- construction paper
- markers
- tape

Materials per STEAM Group

- colored pencils
- crayons
- graph paper
- grid chart paper (two sheets)
- markers
- pencils

Numbers to 1,000

Warm-Up 👥 (10 min)

1. Distribute base-ten blocks to students. Say, "Use your base-ten blocks to find two tens." Write *2 tens* on the board or on chart paper. Ask, "What number name do we have for two tens?" (*20*) Write the number 20 and the word *twenty* next to *2 tens*.

2. Repeat this process with three tens, writing *3 tens*, *30*, and *thirty*.

3. Say, "With a partner, use your base-ten blocks to keep making numbers, counting by tens. Be ready to tell the class how many tens you used and the number name for your model."

4. Elicit student responses, recording the number of tens, the standard form number, and the number name on the board or on chart paper.

Language and Vocabulary 👥 (10 min)

1. Write the following vocabulary terms on the board or on chart paper:

   number name   standard form

   numeral

2. Say, "A numeral is a number written using digits. That is called standard form. Number names are how we say numbers using words."

3. Say, "Let's play a game. You are going to give me a number up to 1,000. I will write the number name, the exact words you are saying. Then, you can write the digits of your number, or the standard form."

4. On the board or on chart paper, go through several examples. Remember, you write the words (number name), and the student writes the standard form or numeral. The chart below serves as an example.

Standard Form	Number Name
3	three
17	seventeen
46	forty-six
50	fifty
94	ninety-four
237	two hundred thirty-seven
609	six hundred nine

Numbers to 1,000

I Do ⏱ 15 min

1. Create a three-column word wall on chart paper with these three headings:

numbers 1–20	numbers 21–29	numbers 30 or greater

2. Distribute copies of precut number name cards (available in the digital resources). These are printed with number names and a blank for the standard form numeral. Here is an example: _____ *eleven*. Distribute two or three cards to each student until all are assigned. Say, "You have been given a number name in words with a blank in front of it. Read it to yourself, and write the standard form numeral in the blank. That is the number in digits. Check your answer with a partner. Then, tape your card to the poster in the correct column." You may wish to complete one card as a class example. Allow time for students to complete the task. As they are taping their notes to the chart paper, check for accuracy, and help to order the cards from least to greatest.

3. After the chart is completed, ask, "What patterns or similarities do you see?" Make sure students mention "–teen" suffixes, hyphens between tens and ones, and the use of the word *hundred*.

Numbers to 1,000

We Do 👥 ⏱️(15 min)

1. Display *What's in a Name?* from page 16 of the *Student Guided Practice Book*. Say, "Look at the number 29."

2. Say, "We will use our chart to write the number name for 29. How many tens are there?" (*two*) "Since it's in the tens place, we have to say the number name for two tens. What is that?" (*twenty*) "If you are not sure how to spell the word, refer to the chart we made. Finally, we need to say and write the number from the ones place. (*nine*) Who remembers something else that I need to write but haven't yet? Here's a hint: It's not a number or letter." (*the hyphen between twenty and nine*) "You should have written *twenty-nine* on your activity sheet for Question 1." Write the number name on the board or on chart paper.

3. Say, "Look at Question 2. It has three digits: 2, 4, and 7. The 2 is in what place?" (*hundreds*) "So, the place value of the 2 means our number starts with the words *two hundred*." Give students time to write. "Now, read the last two digits, and write the number name for them. Watch your spelling by checking the chart. How do we say that number, with a 4 in the tens place and a 7 in the ones place?" (*forty-seven*) "Our number name is written as *two hundred forty-seven*." Write the number name on the board or on chart paper.

4. Say, "Now, complete Question 3 on your own." Review the correct answer. (*two hundred seventy-four*)

5. Say, "The next section says to write the standard-form numeral for the number name. Sometimes, it helps to hear yourself say the number. Read Question 4 aloud, but in a whisper. Think about what that number would look like. You see the number name *five*. Write that digit." (*5*) "Next, it says

hundred. That word is telling us what the place value is for the five. Since we see *hundred*, how many digits will there be?" (*three*) "So the rest of the words will tell us the rest of the digits. It says *sixty-one*. What do those digits look like?" (*a 6, then a 1: 61*) The final answer should be the three digits together: 5, 6, and 1." Write the number on the board or on chart paper.

Support for Language Learners: Students who struggle to write the number in words would benefit from a word bank or chart, such as the one completed earlier in the lesson. Also, these students should be encouraged to read the numeral out loud before trying to write it in words.

You Do 🧑 ⏱️(10 min)

1. Have students complete *Name That Number* from page 17 of the *Student Guided Practice Book*. Remind students to look at the chart previously made in the lesson to help them with spelling and to identify patterns in naming numbers.

2. Have students share their number names. If students have difficulty explaining their reasoning, remind them to use the vocabulary terms.

Construct and Critique Arguments
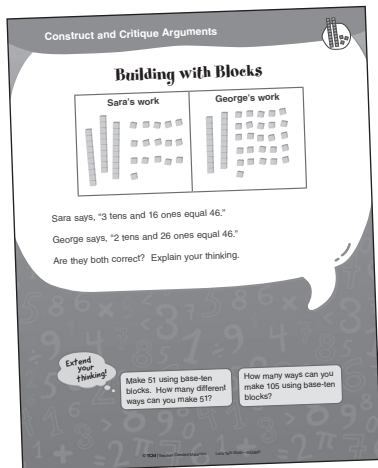
Understand the Strategy

The Construct and Critique Arguments practice/process stems from *construct viable arguments and critique the reasoning of others*. As this practice/process is introduced, it is important that students understand how to justify their thinking by providing evidence and respectfully critiquing someone else's thinking. While tasks in this practice offer opportunities for students to explain their work and show their reasoning, tasks have also been strategically built to allow them to critique someone else's thinking. Generally, students are accustomed to having to explain their own thinking, but rarely are they given the chance to explain someone else's thinking (correct or incorrect) or to evaluate someone else's work using kind and respectful words. This practice/process is intended to support the development of these skills.

Procedure

1. Display the *Building with Blocks* 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 extensions on the next day.)

Answer: Yes, they are both correct, since 46 can be made both ways. Explanations will vary.

Possible Misconception: Students may think that because 46 has the digit 4 in the tens place, there must be 4 tens. While the number 46 has the digit 4 in the tens place, it can be made up of different groupings of tens.

Language Support

*   **Tier 3:** base-ten blocks, tens, ones
*   **Tier 1:** correct

Scaffolding

Provide students with base-ten blocks, and ask them to make a smaller value than 46, such as 12. Then, ask them to make 24. Ask them what they notice about the different ways to make these numbers using the blocks.

Making Maps

Materials and Preparation

- Prepare all materials for the STEAM Challenge (colored pencils, crayons, graph paper, 2 sheets of grid chart paper, markers, pencils).

Read Aloud 🕔 5 min

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

2. Read another section or a few pages of the *Making Maps* book for about five minutes. Pause periodically to discuss new information and any questions students may have.

Build 👥 20 min

1. Have groups review their *Team Designs* activity sheets from the previous day. Explain that when students draw their maps, they must follow their design plans. Reassure them that they will have the opportunity to change and improve their designs after they present them. Review classroom expectations for working with materials. Then, give students time to create maps.

2. Display *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 write their responses. Ask volunteers to share. The rest of the activity sheet will be completed later.

Test 👥 20 min

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 *Can You Find It? Test Results* from page 22 of the *Student Guided Practice Book* to record their results as a team. Allow time for teams to present their maps. For each map, ask volunteers from other teams to find an important place at your school on the map. A successful map will allow a user to locate specific spots or areas within the school quickly. Ask volunteers to give friendly feedback.

3. To further challenge students, ask this question: *How might color-coding on a map be helpful to a viewer?* Guide students to the idea that different colors for different areas or specific spots on a map might make it easier to read, understand, and follow.

Numbers to 1,000

Progress Monitoring 👤 ⏱️(5 min)

1. Have students complete the *Quick Check* from page 23 of the *Student Guided Practice Book* to gauge their progress toward mastery of the learning objectives.

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 👤 👥 ⏱️(30 min)

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. Tell students they are going on a "matching scavenger hunt." (A Refocus presentation is provided in the digital resources for this activity.) Give each student a list of 10 numbers in standard form. Have the word names of these numbers written on construction paper, displayed around the room, and identified by a letter. Encourage each student to read aloud the number on their paper and find the word name posted in the classroom. Once students find the word names that match, they write the identifying letters so the matches can be checked. Review all answers once students have had time to circulate and find the matches.

2. Assign one of the numbers to each student. Their task is to build their number using base-ten blocks, display it to the group, and explain why the number's name matches the model.

3. Support students as they complete Question 1 on *Refocus* from page 24 of the *Student Guided Practice Book*.

Extend 👥

1. Have students write 5,342 in word form.

2. Support students as they complete the *Extend Learning Task* from page 25 of the *Student Guided Practice Book*.

Practice 👤

- **Refocus Group Practice:** Have students solve question 2 on *Refocus* from page 24 of the *Student Guided Practice Book* to reinforce their learning.

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

Numbers to 1,000

Math in the Real World

[icons] (25 min)

1. Display *Math in the Real World: Cracking the Code* from page 27 of the *Student Guided Practice Book*. Have a student read the task aloud. Tell students to explain or summarize the task to their partners. Have a few students share their summaries.

2. Ask students to think about what information they will need to solve the task and what the task is asking them to do. Then, have them share with partners. Ask a few students to share aloud. Have students work in groups of two or three to complete the task.

3. As students are working, circulate and ask focusing, assessing, and advancing questions:

   • What information do you know? What are you trying to find out?

   • How many numbers are in the combination? How many digits are in each number?

   • In what form are the numbers written in the problem?

   • Where do hyphens usually go? Between which place values?

   • How can you decide where one three-digit number ends and the next begins?

   • Can the vocabulary chart we made earlier help you to write the number words in standard form?

Support for Language Learners:

• *I put _____ between the tens number and the ones number.*

• *I put _____ before the next hundreds number.*

4. Observe how students are solving the task, and choose a few groups who solved the task 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 share solutions.

5. As groups are sharing their solution paths, reasoning, and strategies, ask questions:

   • Who can explain _____'s idea another way?

   • Is there another way to solve the problem?

   • How is this solution similar to _____'s solution?

Construct and Critique Arguments

Mathematical Discourse Card Extensions 👥 ⏱15 min

1. Allow time for students to complete the routines for the *Building with Blocks* task from the previous day.

2. Have students work in pairs to complete the extensions.

   • Make 51 using base-ten blocks. How many different ways can you make 51? (*6 ways*)

   • How many ways can you make 105 using base-ten blocks? (*12 ways*)

Making Maps

Materials and Preparation

• Review all designs.

• Prepare all materials for the STEAM Challenge (colored pencils, crayons, graph paper, 2 sheets of grid chart paper, markers, pencils).

Read Aloud 👥 ⏱5 min

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

2. Read another section or a few pages of the *Making Maps* book for about five minutes. Pause periodically to discuss new information and any questions students may have.

Improve 👥 ⏱40 min

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 Designs* activity sheets. Ask them to sketch their improved designs and explain any changes.

   • Challenge successful teams with additional constraints or criteria for the second design (e.g., create a 3D map of the school, create a digital version of the map).

3. Have students gather materials to improve their designs. Then, have them make their improvements and present their maps again. Remind students that a successful map will allow a user to locate specific spots or areas within the school quickly.

4. Have students complete numbers 3 and 4 on *Think about It* from page 20 of the *Student Guided Practice Book*.

SUMMER Scholars

Mathematics

Student Guided Practice Book

Rising 3rd Grade

What's in a Name?

Directions: Write the number names or standard numeral.

Write the number name for each standard numeral.

1 29

_____

2 247

_____

3 274
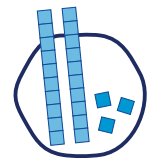
_____

Write the standard numeral for the number name.

4 five hundred sixty-one _____

Name That Number

Directions: Write the number names or standard numerals.

Write the number name for each standard numeral.

1 395

_____

2 938

_____

3 651

_____

Write the standard numeral for each number name.

4 seven hundred ninety-six _____

5 eight hundred eighteen _____

6 one hundred eighty-three _____

Building with Blocks
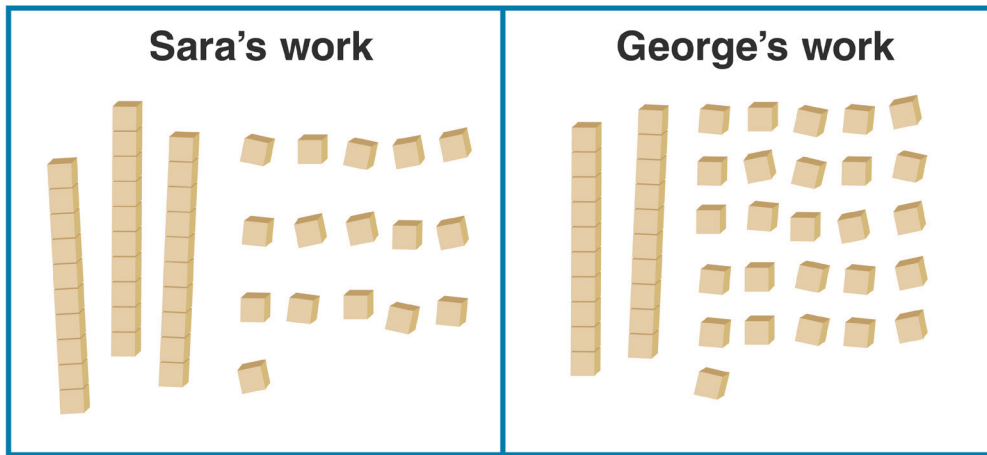
Sara's work	George's work

Sara says, "3 tens and 16 ones equal 46."

George says, "2 tens and 26 ones equal 46."

Are they both correct? Explain your thinking.

Extend your thinking!

Make 51 using base-ten blocks. How many different ways can you make 51?

How many ways can you make 105 using base-ten blocks?

Construct and Critique Arguments

Reflect and Write

Student 1: "How did we prove that our answers are correct?"

Student 2: Respond.

Student 2: "Do we agree or disagree with each other's problem-solving process?"

Student 1: Respond.

Both reflect: "How did we construct and critique arguments?"

Both write (select one):

We constructed arguments by _____

_____

_____

_____

Or

We critiqued arguments by _____

_____

_____

_____

Name: _____ Date: _____

Think about It

1. It was (hard/easy) to create one team design because _____

_____

_____ .

2. I helped my team by _____

_____ .

3. Our design (failed/passed) the test because_____

_____ .

To improve our design, we_____

_____ .

4. Our improved design (worked/did not work). I know this because _____

_____ .

5. During this challenge, I learned_____

_____ .

My favorite part was _____

_____ .

Name: _____ Date: _____

Friendly Feedback

Directions: Feedback from others can help people improve their work. Use these sentence stems to give feedback to your peers.

Clarify

Can you explain _____?

Why did you choose to _____?

How did you _____?

Warm Feedback

I like _____ because _____ .

It is interesting that _____ .

_____ is a good idea because _____ .

Cool Feedback

Have you thought about _____?

I wonder if _____ .

You might want to try _____ .

Name: _____ Date: _____

Can You Find It? Test Results

Directions: Check boxes to tell whether the maps met the constraints and criteria. Rate how clear and easy-to-use each map is on a scale of 3 to 1. Then, answer the question.

Team	Constraints and Criteria	Rating 3 = Very clear 2 = Kind of clear 1 = Not clear at all
	❏ drawn from a bird's-eye view ❏ colorful ❏ has a legend and a compass rose	
	❏ drawn from a bird's-eye view ❏ colorful ❏ has a legend and a compass rose	
	❏ drawn from a bird's-eye view ❏ colorful ❏ has a legend and a compass rose	
	❏ drawn from a bird's-eye view ❏ colorful ❏ has a legend and a compass rose	
	❏ drawn from a bird's-eye view ❏ colorful ❏ has a legend and a compass rose	
	❏ drawn from a bird's-eye view ❏ colorful ❏ has a legend and a compass rose	

Which map is easiest to follow? Why?

_____

_____

Quick ✔ Check

Directions: Solve.

Choose the number name that matches each standard numeral.

1 926   _____

2 962   _____

3 960   _____

4 916   _____

A nine hundred sixty

B nine hundred twenty-six

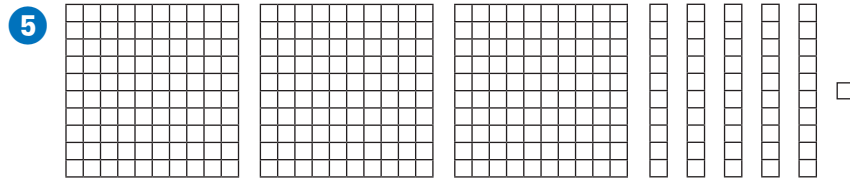**C** nine hundred sixteen

D nine hundred sixty-two

Write the name for the base-ten pictures, using standard form numerals and the number name in words.

5

_____

_____

_____

Name: _____ **Date:** _____

Refocus

Directions: Solve.

1 Draw lines to match the standard form numerals with their number.

49   four hundred nine

409   forty-nine

490   four hundred ninety

2 Write the standard form.

_____

_____
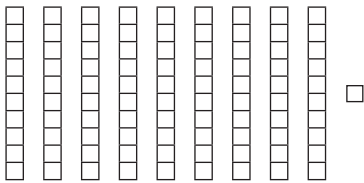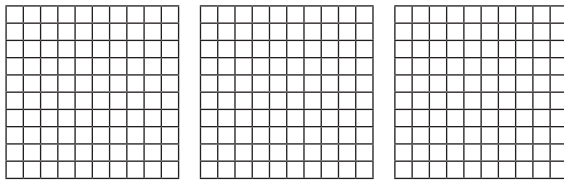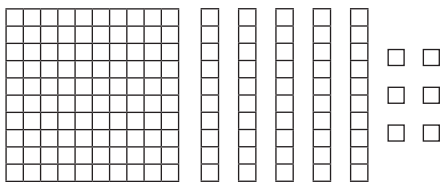
Extend Learning Task

Directions: Fill in the chart.

Place Value	Standard Form	Number Name
3 tens, 6 ones		
	82	
		one hundred seventy-seven
9 hundreds		
1 ten, 5 ones		
	541	
		two hundred twelve
		six hundred seventeen

Create your own place value description. Then, write the standard form and number name.

_____   _____   _____

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.

1 485 _____

_____

2 652 _____

_____

Using the base-ten picture, write the standard numeral and the number name in words.

3

_____

_____

_____

Math in the Real World
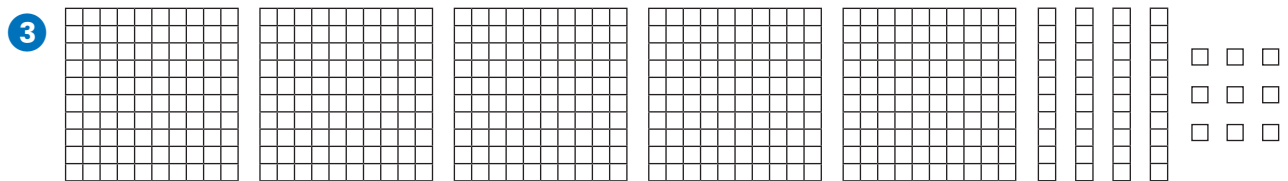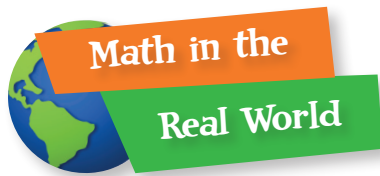
Cracking the Code

Can you guess the combination in digits for a bike lock? The combination is three numbers, and each number has three digits. Use the clue written in the words of the three numbers.

Clue: eight hundred seventy six, five hundred fourteen, three hundred two

Hint: It would help to put the hyphens and commas where they belong!

Unpack the Problem

Make a Plan

Solution

Look Back and Explain