

Math Routines

Rising Grade 3

Week 1-5





COPYRIGHT STATEMENT

Published by Lavinia Group LLC[®].

Copyright © 2023 Lavinia Group LLC[®]. All rights reserved. No part of this work may be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying or information storage and retrieval systems—without written permission from the copyright holder, except in cases of noncommercial use for educational purposes.

Table of Contents

Implementation Guide	4
Guiding Principles	4
Rising Grade 3 Scope & Sequence	4
Priority Standards.....	5
Program Materials	6
Routines Overview	7
Count Around the Room	7
Which One Doesn't Belong	8
Quick Images	10
Number Strings	11
Today's Number.....	13
Daily Lesson Plans	15
Week 1	16
Week 2	27
Week 3	39
Week 4	50
Week 5	61
Routines Bank	73

Implementation Guide

Guiding Principles

The RISE Math Routines Curriculum is designed to build students’ mathematical fluency and conceptual understanding through targeted, discussion-based routines. These routines build fluency not by asking students to memorize a list of math facts or procedures, but rather by developing students’ number sense and relational thinking. In this way, students build automaticity with operations and concepts while keeping the “why” behind strategies front and center.

The RISE Math Routines Curriculum is designed as a 15–20 minute block filled with rich discussions and consistent mathematical routines. Teachers should lead at least one routine per day with the entire class, following the suggested scope & sequence below. Teachers can also pull from the Routines Bank to support students either whole class or in small groups with closing particular gaps.

Rising Grade 3 Scope & Sequence

	Day 1	Day 2	Day 3	Day 4	Day 5
Week 1	Count Around the Room: 2.NBT.2	Count Around the Room: 2.NBT.2	Which One Doesn’t Belong: 2.OA.2	Which One Doesn’t Belong: 2.OA.2	Count Around the Room: 2.NBT.2
Week 2	Quick Images: 2.NBT.1	Quick Images: 2.NBT.1	Number Strings: 2.NBT.5	Number Strings: 2.NBT.5	Quick Images: 2.NBT.1
Week 3	Today’s Number: 2.NBT.3	Today’s Number: 2.NBT.3	Number Strings: 2.NBT.6	Number Strings: 2.NBT.6	Today’s Number: 2.NBT.8
Week 4	Number Strings: 2.NBT.7	Number Strings: 2.NBT.7	Which One Doesn’t Belong: 2.NBT.8	Which One Doesn’t Belong: 2.NBT.8	Number Strings: 2.NBT.7
Week 5	Count Around the Room: 2.NBT.2	Quick Images: 2.NBT.1	Today’s Number: 2.NBT.3	Number Strings: 2.NBT.7	Which One Doesn’t Belong: 2.NBT.5

Priority Standards

RISE Summer Program prioritizes **10** key standards per grade to focus on during summer school. These standards have been selected from the major Common Core clusters designated by [Achieve the Core](#). These standards are addressed through a combination of math routines and Story Problems. The Rising Grade 3 prioritized standards are:

- **2.OA.A.1***: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **2.OA.B.2**: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
- **2.NBT.A.1**: Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones.
- **2.NBT.A.2**: Count within 1000; skip-count by 5s, 10s, and 100s.
- **2.NBT.A.3**: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- **2.NBT.B.5**: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **2.NBT.B.6**: Add up to four two-digit numbers using strategies based on place value and properties of operations.
- **2.NBT.B.7**: Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

Math Routines: Rising Grade 3

- **2.NBT.B.8:** Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- **2.NBT.B.9*:** Explain why addition and subtraction strategies work, using place value and the properties of operations.

**Designates standards that are covered solely through Story Problems.*

Program Materials

- Chart paper
- Chart markers
- SmartBoard or projector
- Class set of Unifix cubes
- Class set of Base 10 blocks
- Class set of whiteboards & markers OR notebooks & pencils

Routines Overview

Count Around the Room

Purpose

To develop students' fluency with counting and understanding of place value patterns. This routine also supports students in knowing how to read and write numbers.

Intellectual Preparation

Lesson Goal: Based on your student understanding and work, choose the lesson goal that you want to develop through Count Around the Room. For example:

- Rising 1-3: I can start at any number and count on by 10s, and notice that the digit in the tens place increases by one each time.
- Rising 4-6: I can use what I know about skip counting to count by fourths and notice patterns in equivalence.
- Rising 7-9: I can use what I know about rational numbers and count by fractional amounts of count on from negative number

Preparation: Strategically choose the number you want to start with and the pattern you want to count by. For example:

- Count forward or backwards by 1s, 2s, 5s, 10s, 100s, 1000s starting at the number you are counting by OR any number
- Count by fractions — $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$, $\frac{1}{6}$ — highlight whole numbers
- Count by decimals — 0.1, 0.2, 0.5, 0.10
- Count by coins — nickels, dimes, quarters
- Count by minutes — 5, 15, 30, 60 (1 hour)

Routine Structure (15 mins)

Launch: Choose a number to start with and the pattern you want to count by. Tell students that you will be counting by that number and point to the student who will start. Ask students to predict which number they will say before you start counting.

Questioning: As students share the numbers they are counting by, ask the following questions:

- What number do you think you will say?
- What number do you think ____ will say?
- What number do you think we'll end on if we go around the circle twice?
- What patterns do you notice emerging?

Representation: Write down the numbers students say, both correct and incorrect, so they can see the number patterns emerging as they are counting around the circle. Throughout the counting, stop along the way to check to see if students agree or disagree and to see if they are noticing any patterns emerging. As students share what they notice, represent their thinking on the numbers.

Check for Understanding: Assess students' ability to skip count by having them complete an exit ticket where they have to identify the pattern in which the numbers are skip counting and write down the next few numbers.



DAILY LESSON PLANS



WEEK 1



Week 1, Day 1 — Count Around the Room



Standard

2.NBT.A.2: Count within 1000; skip-count by 5s, 10s, and 100s.



Task

Count by ones and fives and notice similarities and differences between both ways of counting.



Transferable Takeaway

What big idea will students learn that they can apply to future problems?



Materials

- **Teacher:** chart paper, chart markers



Lesson Guide

- Count around the room twice: first starting at **382** and counting by **ones**, then starting at **382** and counting by **fives**.
- Represent both counts side by side.
- Possible discussion questions (during and after counting):
 - » Do you agree or disagree with this number?
 - » What pattern do you notice emerging?
 - » How did you use what we already know to figure out what number came next?
 - » What is similar about counting by ones and counting by fives?
 - » What is different about counting by ones and counting by fives?



Anticipated Strategies & Responses

How might students solve or answer the discussion questions? What strategies/responses will you highlight to help students reach the transferable takeaway?