

1st Quarter



1st Grade Mathematics Instructional Resources

Overview

District Instructional Guidelines for Math



1st Quarter Scoring Guides

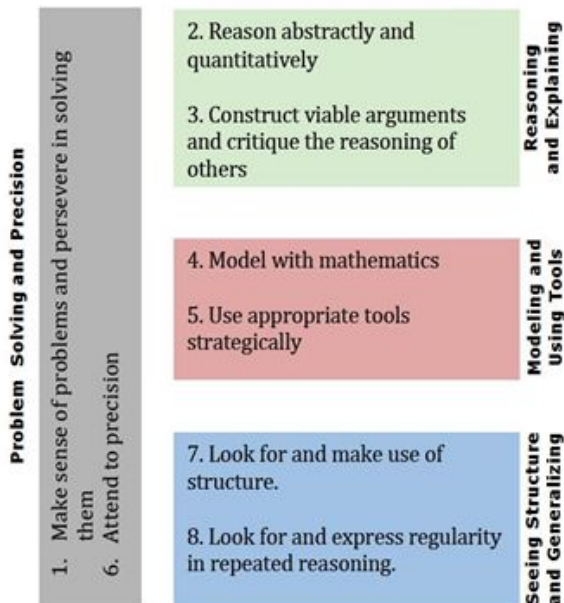
Log into your @rps30 account to access

Math - 90 min.

Students should be engaged in problem solving or investigations for a larger portion of math instruction.

	Standards Driven
• Problem Solving & Investigations in Geometry, Measurement, and Data • Number Concepts, Fluency, Inspecting Equations <i>Includes but not limited to:</i> Counting Collections, Number Talks, Number and Counting Routines, Reading and Writing Numerals, True/False statements, Examining Equality • Targeted Differentiation and Practice	• <i>AR Mathematics Standards</i> • <i>Standards for Mathematical Practice</i>

Standards for Mathematical Practice



Standards for Mathematical Practice in 1st Grade

Scoring the Practices:

[Proficiency Matrix](#)

[Student "look fors"](#)

Teacher resources:

[Teacher Question Starters](#)

[Questions to Promote the Practices](#)

[Practices w/Visual Explanations Posters Grades K-1](#)

["I Can" Statement Posters A](#)

["I Can" Statement Posters B](#)

Essential Question 1

How can I represent my thinking when solving addition/subtraction problems?

- ★ **1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions (e.g., by using objects, drawings, and *equations* with a symbol for the unknown number to represent the problem)
 - **1.OA.A.2** Solve word problems that call for addition of three *whole numbers* whose *sum* is less than or equal to 20 (e.g., by using objects, drawings, and *equations* with a symbol for the unknown number to represent the problem)
 - **1.OA.C.5** Relate counting to addition and subtraction (e.g., by *counting on* 2 to add 2)
- ★ **1.OA.C.6** Add and subtract within 20, demonstrating *computational fluency* for addition and subtraction within 10

Note: 1.OA.C.6 Computational fluency is demonstrating the method of student choice. Students should understand the strategy he/she selected and be able to explain how it can efficiently produce accurate answers. Q1 Focus: Students can use a variety of strategies to compose and decompose numbers within 10.

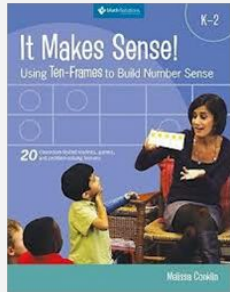
Use strategies such as:

 - Counting on
 - Making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$)
 - Decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$)
 - Using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$)
 - Creating equivalent but easier or known *sums* (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$)

→ **1.OA.C.5** Relate counting to addition and subtraction (e.g., by *counting on* 2 to add 2)
- ★ **1.OA.D.7** Understand the meaning of the equal sign and determine if *equations* involving addition and subtraction are true or false. *For example:* Which of the following *equations* are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, or $4 + 1 = 5 + 2$.

EQ 1: How can I represent my thinking when solving addition/subtraction problems?

Routines, Number Work, Number Talks



P-1 Two Color Counters (1.OA.C.6)
p.159-166 Reproducibles A, 18

G-4 More or Less - Part 2
(1.OA.C.6) p.86-88
Reproducibles A, 7, 8

G-6 Collect Ten (1.OA.C.6)
p.100-116 Reproducibles B, 11

Log into your @rps30 account to access linked resources

Ten Frames within 10 p.96

[Ten-Frames within 10 Number Talks](#) [SMARTboard](#)

Counting All/Counting On: Dot Images p.98-100

[Dot Image Number Talks](#) [SMARTboard](#)

Counting All/Counting On: Double Ten Frames p.103-105

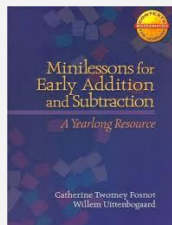
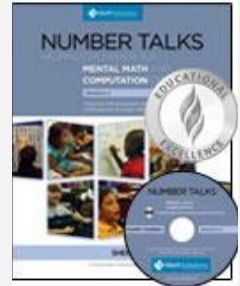
[Counting Double Ten Frame Number Talks](#) [SMARTboard](#)

Doubles/Near Doubles: Double Ten Frames p.109-110

[Doubles - Double Ten Frame Number Talks](#) [SMARTboard](#)

Making Tens: Double Ten Frames p.114-116

[Making Tens Double Ten Frame Number Talks](#) [SMARTboard](#)

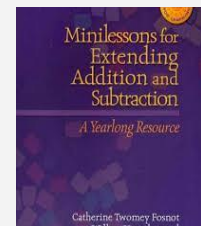


*Minilessons for Early
Addition and Subtraction*

Quick Images: Billboards
(1.OA.C.6)
p.12-16 A1-A3

*Minilessons for Extending Addition and
Subtraction*

Around the Circle (1.OA.C.6)
p.11-13 A1-A2



EQ 1: How can I represent my thinking when solving addition/subtraction problems?

Problem Solving/Problems to Pose:

Log into your @rps30 account to access

1.OA.A.1

[Join - Result Unknown](#)

[Join - Change Unknown](#)

[Separate - Result Unknown](#)

[Separate - Change Unknown](#)

[Part-Part-Whole - Whole Unknown](#)

[Problem Type Template](#)

[Bunk Bed Problem](#)

[Join \(Add To\): Change Unknown](#)

[Separate \(Take From\): Change Unknown](#)

1.OA.A.2

[Join - Result Unknown](#)

[Part-Part-Whole - Whole Unknown](#)

[Addition Problem Situations - 3 addends](#)

[Three Addends Word Problems](#)

[All Standards in EQ1](#)

[Addition/Subtraction within 10](#)

[Addition Word Problems](#)

[Subtraction Word Problems](#)

Developing Meaning Using Story Problems: [Result Unknown](#) [Change Unknown](#)

Problem Solving Resources:

[Problem Types Chart](#)

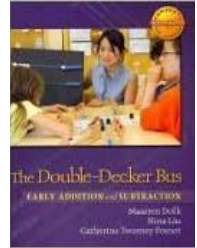
[Strategy Levels for Problem Types](#)

[Open Strategy Sharing Template](#)

Contexts for Learning:

The Double Decker Bus

(1.OA.A.1) Days 1 - 7



Lessons and Tasks:

[Digging for Dinosaurs](#)

[Wheel Shop](#)

[Comparing Connecting Cubes](#)

[More and More Buttons](#)

[Link-Cube Addition](#)

[Daisies in Vases](#)

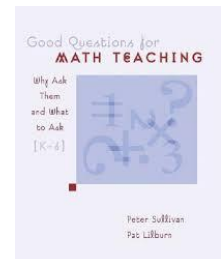
[Domino Addition](#)

[Equality Number Sentences](#)

Good Questions for Math Teaching K-6

Operations (K-2)

p. 40 Q: 2 (1.OA.A.2)



EQ 1: How can I represent my thinking when solving addition/subtraction problems?

Mastering the Basic Math Facts: Addition & Subtraction

These lessons can be referred to throughout the year according to the needs of your students.

Lessons can be modified to be taught without the literature connection, if it's not available.

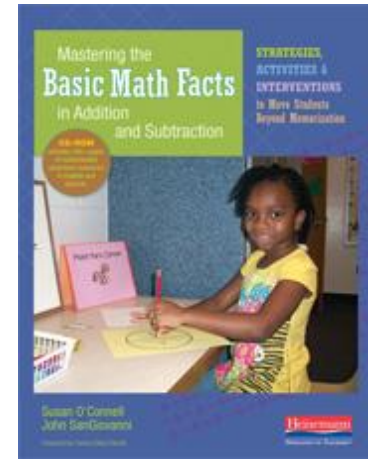
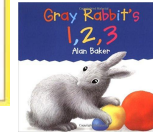
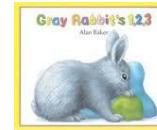
Log into your @rps30 account to access the resources listed with the lessons

Chapter 3: Adding Zero

Addition Lesson - p.51-57 Literature Connection: *Gray Rabbit's 1,2,3*

Connecting to Subtraction - p.60-61 Literature Connection: *Gray Rabbit's 1,2,3*

Teacher Resources (also found on included CD-ROM): [How Many Animals Recording Sheet](#) [Adding Zero Recording Sheet](#)



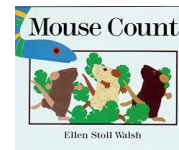
Review/Maintenance/Intervention

Chapter 2: Plus 1 and Plus 2

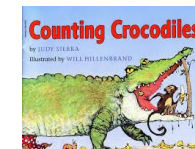
Addition Lesson - p.31-39 Literature Connection: *Mouse Count*

Connecting to Subtraction - p.46-47 Literature Connection: *Mouse Count* and *Counting Crocodiles*

Teacher Resources (also found on included CD-ROM): [Mice in a Jar Template](#) [Mice in a Jar Recording Sheet](#) [Thinking about +1, +2](#)



[YouTube read aloud](#)



[YouTube read aloud](#)

Chapter 6: Making Ten

Addition Lesson - p.93-100 Literature Connection: *Ten Apples Up on Top*

Connecting to Subtraction - p.107-108 Literature Connection: *Ten Apples Up on Top* (this is a Kindergarten Unit 2 resource - could borrow)

Teacher Resources (also found on included CD-ROM): [Apples Up On Top Recording Sheet](#) [Dropping Apples Recording Sheet](#)



[YouTube read aloud](#)

[YouTube story/song](#)

EQ 1: How can I represent my thinking when solving addition/subtraction problems?

Practice and Fluency (1.OA.6)

Mastering the Basic Math Facts: Addition & Subtraction

Log into your @rps30 account to access linked resources

*resources also available on CD-ROM included with book

Building Automaticity Activities:

+1/+2

[Dot Card Addition](#) p.44

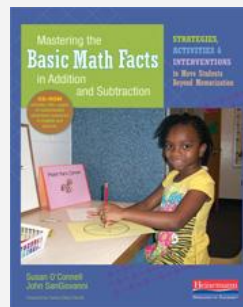
[Dot Card Subtraction](#) p.49

[Less than the Ten Frames](#) p.47

[What's in the Bag](#) p.49

[Spinner from Dot Card Subtraction](#)

[Spinning More or Less](#) p.49



Making Tens

How Many More? P.109 [Ten Frame Cards](#)

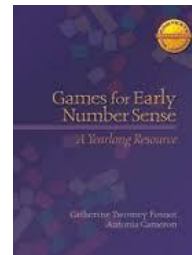
Towers of 10 p.109

Behind the Back p.109

Contexts for Learning: Games for Early Number Sense

Passenger Pairs p.23

Bus Stops p.24



It Makes Sense!

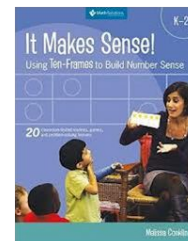
Games:

G-4 More or Less - Part 2
p.86-88

Reproducibles A, 7, 8

G-6 Collect Ten
p.100-116

Reproducibles B, 11



Tasks, Games, and Station Ideas

Log into your @rps30 account to access the following:

[Tens Go Fish](#) [Digit Cards](#)

[Plus 1 or Plus 2 Bingo](#)

[How Many Am I Hiding](#)

[Bears in a Cave](#)

[Counters in a Cup](#)

[Show One More](#) (1.OA.5)

[Show One Less](#) (1.OA.5)

Count on One: [Version 1](#) [Version 2](#)

[Domino Addition](#)

[Part-Part-Whole Cards](#)

EQ 1: How can I represent my thinking when solving addition/subtraction problems?

Multimedia Resources

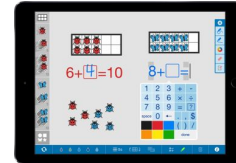
Interactive Manipulatives

[Rekenrek \(Mathrack\)](#)

[Number Frames](#)

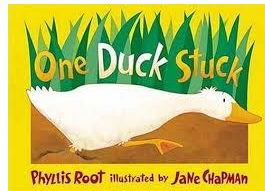
[Number Line](#)

[Free Math Apps \(for variety of platforms\)](#)



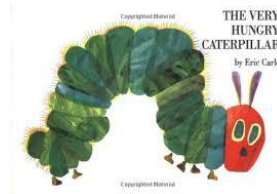
Literature Connections

Log into your @rps30 account to access the following:



[One Duck Stuck](#) by Phyllis Root

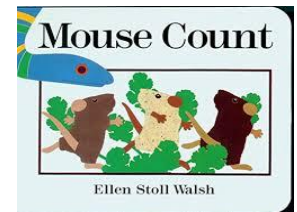
[You Tube Read Aloud](#)



[The Very Hungry Caterpillar](#) by Eric Carle

[YouTube Animated Story](#)

[Lesson/Task - Illustrative Mathematics](#)



[Mouse Count](#) by Ellen Stoll Walsh

[YouTube read aloud](#)

Essential Question 2

How can I use charts and graphs to represent information (data)?



1.MD.C.6 *Q1 focus: organizing and representing data*

- Organize, represent, and interpret data with up to three categories, using tally tables, picture graphs and bar graphs
- Ask and answer questions about the total number represented, how many in each category, and how many more or less are in one category than in another

Students need multiple experiences with a variety of graphs and charts. This quarter should focus on organizing and representing information in charts and graphs. This standard directly connects to the year-long data collection for Science 1-ESS1-2 in making observations about the amount of daylight hours (recording sunrise/sunset and hours of daylight each day).

EQ 2: How can I use charts and graphs to represent information (data)?

Lessons and Tasks:

[Introductory Graphing Ideas](#)

[Atlanta Zoo](#)

Log into your @rps30 account to access the following:

Categorical Data Organization Activities:

[Animals on the Farm](#) [Bears & Tigers](#)

[Which Has Fewer?](#)

[How Many Pockets?](#) Part 1 & Part 2 (keep for use in Quarter 2)

[Waking Up](#) Part 1 (keep for use in Quarter 2)

[Favorite Dessert](#) Part 1 (keep for use in Quarter 2)

[Data Representation Questions](#) (for use all year long)

Hands On Standards (Grades 1-2)

Bar Graphs p. 134-135

Pictographs p.136-137

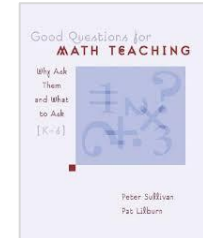


*Good Questions for
Math Teaching K-6*

Data (K-2)

p. 97

Questions 1, 2, 3, 4 & 5

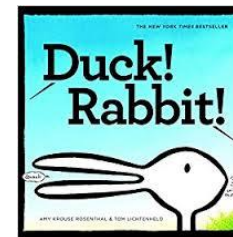


Multimedia Resources

Interactive Manipulatives & Games

[Create a Graph](#)

[Tally Charts and Bar Graphs](#) BrainPop Jr.



Literature Connections

Log into your @rps30 account to access

[*Duck! Rabbit!*](#)

by Amy Krause Rosenthal

[YouTube Animated Video](#)

[You Tube Read Aloud](#)

Essential Question 3

What are the attributes of shapes?

- ★ **1.G.A.1** Distinguish between defining *attributes* (e.g., triangles are closed and three-sided) versus non-defining *attributes* (e.g., color, orientation, overall size); build and draw shapes to possess defining *attributes*. *Q1 focus: understanding attributes of shapes and exploring the difference between defining and nondefining attributes.*

EQ 3: What are the attributes of shapes?

Lessons and Tasks:

[Circus Trip](#)

[What Are Attributes?](#)

[Investigating Shapes - triangles](#)

Log into your @rps30 account to access the following:

[Shape Attribute Anchor Charts/Posters](#)

[Shapes Attributes SMARTboard](#)

[Sorting Shapes SMARTboard](#)

Blackline Masters of shapes

[Triangles 1](#); [Triangles 2](#)

[Quadrilaterals 1](#); [Quadrilaterals 2](#)

[Tangrams 1](#); [Tangrams 2](#); [Tangram Pieces](#)

[Pentagons](#) [Hexagons](#) [Cubes](#) [Squares](#)

[Attribute Blocks](#) [3D "skeletons"](#)

Pattern Blocks: [Color](#) [Grayscale](#)

Polygons: [Sheet A](#) [Sheet B](#) [Sheet C](#)

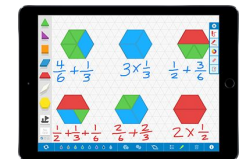
Multimedia Resources

Interactive Manipulatives & Games

[Geometric Solids](#)

[Shape Tool](#)

[Pattern Shapes](#) (pattern blocks)



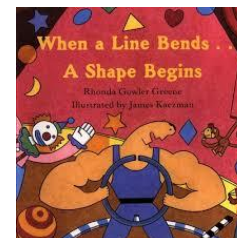
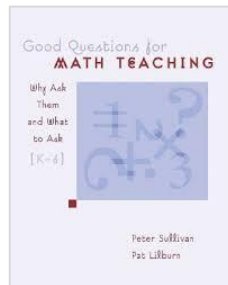
Good Questions for Math Teaching K-6

2-D Shapes (K-2)

p. 78 Questions 1, 2 & 4

3-D Shapes (K-2)

p. 85 Questions 5 & 6



Literature Connections

Log into your @rps30 account to access

[When a Line Bends...a Shape Begins](#)

by Rhonda Gowler Greene
[YouTube Read Aloud](#)

Additional Standards

- **1.NBT.A.1** *Students need to be able to count forwards beyond 120 (in order to understand crossing decade numbers) and backwards from 120.*
 - Count to 120, starting at any number less than 120
 - In this range, read and write numerals and represent a number of objects with a written numeral.

- **1.MD.B.4** Identify and know the *value* of a penny, nickel, dime, and quarter
Q1 Expectation: Recognize both sides of a coin and know its value.

Additional Standards

1.NBT.A.1

- Count to 120, starting at any number less than 120
- In this range, read and write numerals and represent a number of objects with a written numeral.

Routines/Number Work

[Number of the Day](#)

[Counting Circles II](#)

[Choral Counting II](#)

Lessons, Tasks, Activities:

[Creating a Number Line](#)

[Hundred Chart Digit Game](#)

[Missing Number Grids 1-50](#) *Log into your @rps30 account to access*

Counting and Number Resources:

[Number Cards 0-100](#)

Number Chart 0-99: [Completed](#) [Blank](#) [4/page](#)

[Dot Cards 1-12](#)

[Dominoes](#)

[Ten-Frame Blank - Blackline Master](#)

[Counting Collections Recording Sheet](#)

Log into your @rps30 account to access

1.MD.B.4

Identify and know the *value* of a penny, nickel, dime, and quarter

[Introduction to Money](#) - Betterlesson.com

[Introduction to Coins](#) - Betterlesson.com

[Which Coin is Which?](#) - Betterlesson.com

[Mystery Coins](#)

[Identifying Coins and Exploring their Relationships](#)

[Coins and Their Values with Kevin the Minion](#) - SMARTboard

[Making Sense with Cents](#)

[Money Pieces](#) - interactive visual

[Learning Coins](#) - Learn and sort interactive

Coins 'printables' (use for instruction/anchor charts):

[Penny](#) [Nickel](#) [Dime](#) [Quarter](#)