



Marietta City Schools District Unit Planner

Second Grade

Unit Title	<i>Launch Unit</i>	Unit duration	<i>5-7 days</i>
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GSE Standards

Standards

Review Standards from First Grade:

1.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem. Problems include contexts that involve adding to, taking from, putting together/taking apart (part/part/whole) and comparing with unknowns in all positions.

1.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Corresponding Second Grade Standards:

2.OA.2 Fluently add and subtract within 20 using mental strategies.⁸ By end of Grade 2, know from memory all sums of two one-digit numbers.

2.MD.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems¹⁰ using information presented in a bar graph.

Standards for Mathematical Practice 1-8

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Essential Questions

Why do we do Number Talks?

What will our daily math time look/sound like?
What is a mathematician? How do mathematicians use tools/toolkits appropriately?
How do mathematicians work in groups?
What does it mean to be precise?
How do mathematicians construct viable arguments in order to defend their thinking?
How do mathematicians critique the reasoning of others?
How do mathematicians show their work?
How do mathematicians make sense of problems?
How do mathematicians persevere in solving problems?
How do mathematicians connect math to the real world?
What are the procedures for rotations?

Assessment Tasks

Diagnostic Assessment(s): Savvas Readiness Test

Formative Assessment(s): Independent Tasks

Unit Overview and Rationale

Purpose and Goals of the Launch Unit

- for students to become familiar with the rituals and routines of the Mathematics Workshop, Number Talks and Guided Math.
- for teachers to be able to implement and teach the rituals and routines that allow Number Talks, Guided Math and the Mathematics Workshop to function smoothly in the classroom.

Rituals and routines that should be established in the mini-lesson include the following:

- expectations of behavior when working with a partner, small group or participating in a whole group discussion.
- signals to use for confusion, questions, or proposing alternative strategies or solutions.
- how and when movement is constrained or not constrained.
- how student work and oral participation is respected.
- what to do when an activity is completed.
- how and when to use the tools of mathematics.

Teacher Preparation Before Beginning the Launch Unit

Make decisions regarding:

- *Will students be called to a central meeting place?*
- *How will manipulatives be managed?*
- *What signals will you use to call students to the math workshop, get their attention and to begin cleanup? (bell, wind chime, music)*
- *Will you have a bulletin board dedicated to the Math Workshop? If not, how will you organize daily groups?*

- How will the teacher handle movement during workshop (bathroom, sharpening pencils, etc.)?
- Do you want to establish a “hands-off” signal for when students should stop working and listen for instructions?

Read through the unit to see what centers need to be prepared ahead of time.

Suggested Math Block: [MCS Math Framework + Savvas Observation Tool](#)

Duration	Instructional Component	Description
5-10 min.	Number Talk	<ul style="list-style-type: none"> • classroom conversation around purposefully crafted computation problems that are solved mentally • (can be done anytime throughout the day)
5-10 min.	Opening <i>Savvas Component: Solve & Share</i>	<ul style="list-style-type: none"> • Activating strategy to activate schema (problem-based learning) • Introduces standard(s), learning target(s) and success criteria, along with an emphasis on academic work • Engages students, accesses prior knowledge and makes connections • Provides explicit instruction aligned to standard(s), including skill development and conceptual understanding
5-10 min.	Transition to Work Session <i>Savvas Component: Visual Learning Bridge + Guided Practice</i>	<ul style="list-style-type: none"> • Engages students in collaborative, problem-solving tasks • Engages students in lesson-specific discussion • Models problem-solving and comprehension strategies • Asks challenging questions
30-45 min.	Work Session <i>Savvas Component: Assess & Differentiate</i>	<ul style="list-style-type: none"> • Provides small group instruction based on data (differentiated support) • Facilitates independent and small group work; scaffolds learning task • Purposefully forms collaborative groups and differentiates tasks allowing for student choice • Monitors, assesses and documents student progress and provides ongoing, standards-based feedback • Allows students to engage in productive struggle, make mistakes, and engage in error analysis
5 min.	Closing <i>Savvas Component: Quick Check</i>	<ul style="list-style-type: none"> • Clarifies misconceptions in student understanding and provides data-driven, targeted feedback • Formatively assesses student understanding • Summarizes and celebrates progress toward learning target and mastery of standard(s) • Identifies next steps for instruction based on data analysis

As you work through the math workshop for this launch unit, the times might be different than they will be as you move through the year. These are just guiding times. Your differentiated groups will later be your differentiated lessons and small group instruction time based on student needs.

This launch unit will focus on organizing, representing, and interpreting data with up to 4 categories AND review of addition and subtraction facts to 20. Teacher will provide guidance regarding procedures for obtaining and returning various materials, partner selection, and ending work time.

Anchor Charts for Routines and Procedures:

Anchor chart ideas are attached throughout this unit. However, the anchor charts for your class NEED to be created by the students. You can write them, but students should be involved in generating the ideas you record. The anchor charts SHOULD NOT be created prior to the lesson.

Common Learning Experiences

Day 1 Lesson

Number Talk

A Number Talk is not required today. Instead, move to the Math Workshop portion of the lesson plans. If you do feel comfortable and want to begin Number Talks with your class, please feel free.

Math Workshop

Focus: establish expectations for working with partners

Opening

Tell students that data or information is collected, organized, and displayed for a reason. The way we organize the information can make it easier to read and understand. Post “Favorite Ice Cream” graph on Smartboard. Ask students to study the information displayed on the graph. Students can discuss with elbow partner for a moment. Ask: What is the topic of this graph? What are the categories/choices? How many children voted for chocolate? Vanilla? Strawberry?

[2_day_1_graph_Favorite_Ice_Cream.pdf](#)

Work Time

Partners will work together to sort small bags of objects. (Teacher will prepare bags with three categories of objects, can be colored teddy bear counters, attribute blocks, etc. Use up to 20 objects in each bag.) After they sort the objects into three categories, the students will record the data onto a bar graph template. The teacher will monitor students as they work and assist as needed. Be sure students list an appropriate title for their graph, list the category labels, and color the bar graph accurately.

[2_Three_Category_Bar_Graph](#)

Closing

Meet back together as a whole group. Allow pairs of students to present and explain their graphs.

Teacher will ask questions to check for understanding. Use prompts like these to promote class discussion:

How many objects were in each category?

How many _____ and _____ altogether?

How many more/fewer _____ than _____?

If you had _____ more objects, how many would there be in all?

How many objects were in your bag altogether?

How many more _____ would you need to have 20?

Small Group 1**Small Group 2****Small Group 3****Day 2 Lesson****Number Talk**

A Number Talk is not required today. Instead, move to the Math Workshop portion of the lesson plans. If you do feel comfortable and want to begin Number Talks with your class, please feel free.

Math Workshop

Focus: review expectations for working with partners

Opening

Post a teacher created graph with three categories. Give the students a sticky note and put their name on it. They will then look at the question and three category choices. Each student will place their sticky note on the category that they choose. After each student has chosen a category, lead a discussion to analyze the graph.

Work Time

Students will work with partners to complete Super Source activity “Spin and Graph”. Save graphing materials from this lesson for later use as a center. Students may also choose to make a cube with the chosen shapes drawn on each face. They will roll the dice and graph the shape that comes up.

[2_SS Spin and Graph \(2\).pdf](#) [2_Spin and Graph](#) [2_SS Spin and Graph Spinner.pdf](#) [2_cube template for dice.pdf](#)

Closing

Ask for volunteers to bring up their graphs and report their results. Display each graph for all to see. Then transfer each pair’s findings to a larger graph.

Use prompts like these to promote class discussion:

What did you notice about your results?

Whose spins turned out the way they thought they would? Why do you think that was?

What does the class graph show about the shape with the most spins?

How does the class graph compare to your own?

Would you call the spinner a “fair” spinner? Explain.

Day 3 Lesson

Number Talk

A Number Talk is not required today. Instead, move to the Math Workshop portion of the lesson plans. If you do feel comfortable and want to begin Number Talks with your class, please feel free.

Math Workshop

Focus: establish expectations for working in small groups

Opening

The teacher will display a tally chart with three categories of data. Students will discuss the data with an elbow partner. Then ask students to guide you to transfer the data onto a bar graph on chart paper. Ask: Where should I list the categories? What is a good title for this graph? Where should I write the title? How can I show the total for each category? What can you tell me about this data? (record student observations on chart paper and post next to the graph when done)

Work Time

Assign students to groups of three or four. Groups will work together to sort small bag of unifix blocks (use three colors). After they sort the colors into the three categories, the students will record the data onto a bar graph template. The teacher will monitor students as they work and assist as needed. Be sure students list an appropriate title for their graph, list the category labels, and color the bar graph accurately.

Extension: Students can create their own questions as a group to survey the students.

Closing

Meet back together as a whole group. Allow pairs of students to present and explain their graphs.

Use prompts like these to promote class discussion:

How many _____ and _____ altogether?

What strategy did you use to answer this?
How many more/fewer _____ than _____?
How many more _____ would you need to have 20?

Small Group 1

Small Group 2

Small Group 3

Day 4 Lesson

Number Talk

Set up Number Talks classroom routines and procedures. Refer to the following links or to Chapter 2 of Number Talks by Sherry Parrish.

[K-2 Number Talks](#) [K-2 Number Talks Videos and Examples](#)

Math Workshop

Focus: review expectations for working in small groups

Opening

Display the Counting Colors spinner. Invite children to describe what they see and how they might use the spinner.

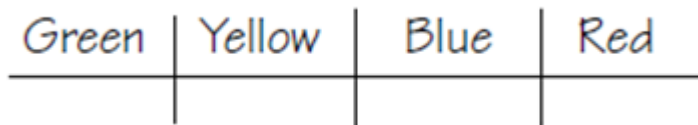
Explain to children that they are going to use the spinner and record how many times they spin each color.

Draw these headings on the chalkboard and have children copy them on the top of long sheets of paper.

Call on a volunteer to spin the spinner. Have each child place a Color Tile on his or her paper in the column that corresponds to the color that comes up on the spinner.

Choose more volunteers to spin the spinner. Continue having children record each spin by placing Color Tiles in the corresponding column on their papers.

Elicit that by putting down tiles in this way, children have built a graph. Call on volunteers to “read” their graphs aloud.



Work Time

Assign groups of three or four students to complete the “On Their Own” portion of Super Source activity. Save graphing materials from this lesson for later use as a center.

[2_Counting Colors.pdf](#) [2_Counting Colors Spinner.pdf](#) [2_Counting Colors Graph](#)

Closing

Invite pairs to post their graphs and report their results. Then compile everyone’s findings into a larger class graph.

Use prompts such as these to promote class discussion:

What did you notice about your results?

Whose guesses turned out to be correct? Why did you guess that color?
What does the class graph show about the Color Tile with the most spins?
How does the class graph compare to your own graph?
Would you call the spinner a "fair" spinner? Explain.

Small Group 1
Spin and Graph (from day 2)

Small Group 2
Fact Fluency (flash cards, dice games, domino addition)

Small Group 4
Computer (i.e. Odyssey)

Day 5 Lesson

Number Talk

Review routines and expectations for Number Talks
"Making Tens" (review from first grade) (found on p. 117 in Number Talks by Sherry Parrish)

Math Workshop

Focus: establish expectations and procedures for centers

Opening

Preview coins- penny, nickel, dime, and quarter. Post model coins on an anchor chart labeled with their names.

Read aloud story, [The Three Silly Billies](#).

After reading the story, go back through the book together and record on a tally chart the total number of each coin that was collected.

Work Time

Students will then work independently to complete a bar graph to display the information.

[2. Three Billy Goat Graph](#)

Closing

Invite students to share facts about their graphs. Teacher will ask questions to check for understanding. Questions may include:

How many _____ and _____ altogether?

What strategy did you use to answer this?

How many more/fewer _____ than _____?

Small Group Rotations/Centers

Establish routines and expectations for center rotations. Students will spend approximately 15 minutes at each center. Allow time between each rotation to clean up materials and review procedures. Divide students into four groups. Two groups will complete centers #1 and #2 today. The other two groups will complete centers #3 and #4 today. Students will complete the other two centers tomorrow.

Small Group 1 Spin and Graph (from day 2)	Small Group 2 Fact Fluency (flash cards, dice games, domino addition)	Small Group 4 Computer (i.e. Odyssey)
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Day 6 Lesson

Number Talk
Continue “Making Tens” number talk (found on p. 117 in Number Talks by Sherry Parrish)

Math Workshop
Focus: review expectations for working with partners and at centers

Opening
Teacher will read aloud the story, [The Shape of Things](#) (or use the hyperlinked video). While reading/listening, discuss the attributes of the different shapes used in the story.

Work Time
Let students choose a partner for this activity. Give partners a set of four types of pattern blocks. They will work together to create a picture with their blocks (can be animal, robot, building, person, etc.). Then they will color, cut, and glue pattern blocks to copy their design. Partners will work together to graph how many of each type of pattern block they used to create their picture. Then they must write at least two facts about their graph data.

[2 Pattern Blocks template.jpg](#)

Extension: Students that finish early can incorporate a writing piece about their pattern block picture. What they built, a name, story, etc.

Closing
Students will present their pictures and graphs. Display students’ work when finished.

Small Group Rotations/Centers

Review routines and expectations for center rotations. Students will spend approximately 15 minutes at each center. Allow time between each rotation to clean up materials and review procedures. Using the same four student groups from yesterday, the students will complete the other two centers.

Small Group 1 Color Graph (from day 4)	Small Group 2 Fact Fluency (flash cards, dice games, domino addition, etc.)	Small Group 4 Computer (i.e. Odyssey)
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Day 7 Lesson

Number Talk
Continue “Making Tens” number talk (found on p. 117 in Number Talks by Sherry Parrish)

Math Workshop
Focus: review expectations for working with partners and at centers

Opening
Present Exemplar: Collecting Seashells. Use the “More Accessible” version of the task as an introduction:

Paul and Amy love to collect seashells. The 1st time they went to the beach they each found 5 shells.
 The 2nd time they went to the beach, Paul found 2 shells and Amy found 3 shells.
 The 3rd time they went to the beach Paul found 3 shells and Amy found 2 shells.
 Who found the most shells? Show how you know.
 Discuss various strategies for solving and communicating the results.

Work Time

Assign partners or let students choose a partner for this Exemplar activity. Post the following task on Smartboard:

Collecting Seashells

Paul and Amy love to collect seashells. The 1st time they went to the beach, they each found 5 shells. The 2nd time they went to the beach, Paul found 6 shells and Amy found 4 shells. The 3rd time they went to the beach, Paul found 3 shells and Amy found 7 shells. The 4th time they went to the beach, Paul found 4 shells and Amy found 2 shells. Amy said that she found the most shells, while Paul argued that they both had found the same number of shells. Who was right? Show how you know.

Closing

Meet back together as a whole group to discuss the task. Allow students to share their strategies for solving.

Centers

Review routines and expectations for center rotations. Students will spend approximately 15 minutes at each center. Allow time between each rotation to clean up materials and review procedures. Divide students into four groups. Two groups will complete centers #1 and #2 today. The other two groups will complete centers #3 and #4 today. Students will complete the other two centers tomorrow.

Teacher Group: Introduce math journals- Glue copy of the “More Challenging” version of Collecting Seashells exemplar into math journal. Students will solve and record their thinking in their math journal. Teacher will give support as needed. [2 Collecting Seashells Exemplar](#)

Small Group 1

Fact Fluency (flash cards, dice games, domino addition, etc.)

Small Group 2

A Bag of Cubes (teacher will print and prepare this center) [2 Bag of Cubes Center](#)

Small Group 3

Computer (i.e. Odyssey)

Materials Needed		
Day 1 Lesson	Day 2 Lesson	Day 3 Lesson
<ul style="list-style-type: none"> small bag of objects per pair of students (3 categories of items for graphing- ex: teddy bear counters, attribute blocks, etc.) student graph 	<ul style="list-style-type: none"> teacher-created graph on chart paper one sticky note per student spinner for game (see link to print) student graph 	<ul style="list-style-type: none"> teacher-prepared tally chart chart paper bags of unifix cubes for graphing (three colors) student graph
Day 4 Lesson	Day 5 Lesson	Day 6 Lesson
<ul style="list-style-type: none"> Counting Colors spinner (attached) blank paper for each student 	<ul style="list-style-type: none"> large demonstration coins chart paper 	<ul style="list-style-type: none"> book: The Shape of Things bags of pattern blocks (four colors per bag)

<ul style="list-style-type: none"> ● color tiles ● Counting Colors student graph (attached) 	<ul style="list-style-type: none"> ● book, The Three Silly Billies ● student graph ● Spin and Graph materials ● Counting Colors graphing materials ● fact fluency materials (flash cards, dice, dominoes, etc.) 	<ul style="list-style-type: none"> ● pattern blocks templates to color and cut ● paper, student graph, “Spin and Graph” materials ● Counting Colors graphing materials ● fact fluency materials (flash cards, dice, dominoes, etc.)
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Day 7 Lesson

- math journal for each student
- one copy of “Collecting Seashells” Exemplar for each student to glue into math journal (see link to print)
- fact fluency materials
- “A Bag of Cubes” math center materials (see link to print)