2rd Grade Unit 9 Priorities Document

Please see the Draft Grade 2 Math Overview and Scope and Sequence for important information about the year and emphases for each unit.

Overarching Big Ideas

• ***Less is more***	• ***Depth vs. breadth***	• ***Relationships over everything***	• ***Access for all, especially emerging bilinguals & students with disabilities***

	Window (change) April 12 - 23	**Big Idea**	**Comments**	Standards (**Priority Standards** bolded)
Unit 2.9 **Working with Figures**	2 weeks (was 15 days)	Shapes can be described uniquely by their attributes, such as the size and shape of their sides and angles. Shapes can be composed and decomposed to make new shapes.	• Reduce emphasis on reasoning with shapes and their attributes. • Reduce emphasis on partitioning shapes into equal shares.	2.G.1 2.G.2 2.G.3

Norms

Answers are important, but they are not the math. 	**Talk about each other's thinking.** 	**Errors are gifts that promote discussion.** 	**Ask questions until ideas make sense.** 	**Use multiple strategies and multiple representations.** 

2020-21 SFUSD Elementary Math Distance Learning Resources	**Gr. 2 Curriculum Portal**	**Gr 2 Learning Stations Bank**	**Math Talks Bank**

Optional Routines: • Continue the **"Number of Days in School" routine** during this week of school. See Number of Days in School (Spanish) for ideas. • Continue the **"Skip Counting" routine** begun in Unit 0. See Counting Routines for more • Do **Skip Counting on the Clock** - instructions are in each lesson • Optional Math Talks 2.9 Math Talk Visuals BLM • Daily Schedule	

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2.9 Slidedeck / Spanish This unit is intended to be taught over the course of 4-5 weeks. (Feb. 22 -- March 26)

One lesson may be spread over a couple of days. On days when there isn't a new lesson "taught", students can complete the lesson independently (Explore), consolidate their learning by viewing, discussing and reflecting on their peer's responses (the summary), and/or work independently on activities related to the unit or to their needs.

	New Learning	**Re-engagement**	**Other Resources**
Standards: 2.G.1 2.G.2 2.G.3 See note below re. these standards	• Students recognize and draw shapes having specific attributes and identify triangles, quadrilaterals, pentagons, hexagons, and cubes. • Students compare two-dimensional shapes based on their attributes. • Students describe polygons by the number of sides they have and combine polygons to form new shapes. • Students partition rectangles into rows and columns of same-size squares and count the total number of squares. • Students partition shapes into equal parts and describe them as halves, thirds, or fourths. • Students recognize that equal shares of identical wholes need not have the same shape.	In Kindergarten, students identified and described 2 and 3 dimensional shapes including squares, circles, triangles, rectangles, hexagons, and cubes. Students also identified and described squares and rectangles. In Grade 1, students distinguished between defining attributes (e.g., number of sides, corners / vertices, faces, etc.) and non-defining attributes (e.g., color, size, orientation, etc.) of shapes. Students also partitioned shapes (circles and rectangles) into two and four equal parts and used the words half, fourth, and quarter to describe them.	2.9 Technology 2.9 Podcast 2.9 Family Letter .S. .C. * S = Spanish Student Page * C = Chinese Student Page **Classwork and Homework PDFs** Student PDFs 2.9 Classwork .S. C 2.9 Homework .S. C
	Recommended Lessons - April 12 - 23	**Additional Activities and Technology Resources**	
Lesson 1	**Entry Task-** We can describe and identify two-dimensional shapes based on their attributes. **LAUNCH Whole Class or Groups:** • Notice and Wonder • Shapes Anchor Charts - Review shape names and attributes **EXPLORE Independent or Small Group:** Seesaw Lesson 1 (Spanish)- Entry Task, Don's Shapes S C Virtual Pattern Blocks (optional) Pg. 1 - Name the shapes Pg. 2 - Describe why the 1st shape is different from the other two	**Virtual manipulatives:** Students can use the virtual Pattern Block environment in the MathLearningCenter (also available for iOS devices such as iPads and Chromebooks) instead of or in addition to working with physical Pattern blocks. Note that this includes one shape (a purple right triangle) that is not part of a standard Pattern Block set. This virtual Geoboard environment from the Math Learning Center is a tool for exploring a variety of ideas related to shapes. Students stretch virtual rubber bands around pegs to form line segments and polygons.	

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	Pg. 3 Use the pattern blocks to create a robot and name the shapes **SUMMARIZE** **Whole Class or Groups:** Use the samples or share actual student work. Design a robot using Virtual Pattern Blocks **Core Math to Emphasize:** Two-dimensional shapes can be described and identified based on their attributes.	This virtual Isometric dot paper can be used to draw 2- and 3-dimensional shapes. Lines can be made with different colors, and after drawing they can be rotated. 3-D shapes and be rotated and viewed from different angles. **Teacher resources:** This Pattern Blocks Resource can be used by you to create examples and new problems for students. You can also create copies of it for your students to manipulate.
Lesson 2	**LS 1 Day 1 -** Students describe attributes of two-dimensional shapes and sort them based on these attributes. **LAUNCH** **Whole Class or Groups:** Optional Video: The Greedy Triangle by Marilyn Burns tinyurl.com/o5gmjqq ● Math Talk - *Which One Doesn't Belong?* **EXPLORE** **Independent or Small Group:** Seesaw Lesson 2 (Spanish)- Shape Sort ● Look at all the shapes and their attributes. ● Try to sort them into two, three, or four groups so that every shape has a category it fits into. ● Drag the shapes into one of the sort boxes and name why those shapes belong there. **SUMMARIZE** **Whole Class or Groups:** **The summary could take a few different directions depending on what your students do.** Options include: **1 - Develop vocabulary.** Look at a few sorts and discuss the language they used to describe their categories. Have all students practice precise math language . *See the unit front matter for terms.* **2 - Compare and contrast 2 sorts.** This might include bringing forth misunderstandings, or holding a	**Other activities:** Board Block - An interactive game that combines higher-order thinking (in terms of developing a strategy) with reinforcing the properties of a triangle. Triangle Edges - An interactive activity to investigate the question of how many triangles you can make using sticks that are 3cm, 4cm and 5cm long. Shapes Shoot - Basic practice in naming polygons and other shapes in a game environment. **Video:** Learning Shapes This video talks about the attributes of quadrilaterals, triangles, pentagon and hexagons. **Other activities:** This 3-Act Task from Graham Fletcher is a great context for 2.OA.4 - Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. ● Cover the Floor

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	discussion to further students thinking about what defining attributes of a shape are. **Core Math to Emphasize:** Triangles, quadrilaterals, and hexagons can be recognized and sorted based on their attributes, including number of sides and angles.		
Lesson 3	**LS 2 Day 1 & 2** Students build different rectangles with the same number of colored tiles. Students determine the number of squares that make up a mystery rectangle. They build rectangles based on a description of the number of rows, columns, and/or total number of squares. **LAUNCH Whole Class or Groups:** ● Math Talks - Partitioning rectangles into rows and columns ● Fill the rectangles with the tiles **EXPLORE Independent or Small Group:** Seesaw Lesson 3 (Spanish)- Rectangles Pg. 1-3 Make as many rectangles as you can with 12 tiles Pg. 4 Connect the marks across the rectangle and find the total number of squares. **SUMMARIZE Whole Class or Groups:** *What are some methods students used to count the total?* ● *Is it a square? How do you know?* ● *How many tiles could you add **or** subtract to make it a square?* **Core Math to Emphasize** Rectangles can be partitioned into equal-sized squares arranged in rows and columns. There are different ways to count the total number of squares.		

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Lesson 4	**LS 3 Day 1 & 2 -** Students partition rectangles, circles and squares into halves. **LAUNCH Whole Class or Groups:** Tell students that they are going to be thinking about equal shares for the rest of this unit. Remind students of the brownie pan from Lesson Series 2 • Share brownie designs and ask: *Which ones show 2 equal shares of brownies?* **EXPLORE Independent or Small Group:** Seesaw Lesson 4(Spanish) - Halves, Not Halves, Blank Rectangles BLM, Blank Circles BLM, Halves and Not Halves S C • Review all pages for partitioning shapes into Halves and Not Halves • Clarify any vocabulary terms or questions **SUMMARIZE Whole Class or Groups:** Look at student work or premade samples and discuss: *Do these show partition into 2 parts?* *Are the parts equal? How do you know?* *What are the parts called?* **Core Math to Emphasize** • Rectangles and circles can be partitioned into 2 equal shares called halves. • There's more than one way to partition a square to make halves. • Two halves make one whole. • Equal shares of identical wholes need not have the same shape.		•
Lesson 5	**LS 3 Day 3 & 4 -** Students partition squares into fourths and thirds. **LAUNCH Whole Class or Groups:** Math Talks- Equal		•

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	Shares • Notice and Wonder - Halves, Fourths and Thirds **EXPLORE** **Independent or Small Group:** Seesaw Lesson 5 (Spanish) - Fourths and Thirds, LS3 Extra Practice BLM S C • Review all pages for partitioning shapes into Fourths and Thirds • Clarify any vocabulary terms or questions **SUMMARIZE** **Whole Class or Groups:** Share student work samples or use the samples provided • Review ways to partition rectangles into halves, fourths and thirds. • *How many parts is this circle divided into? What is each one called?* **Core Math to Emphasize** • There's more than one way to partition a shape to make fourths and thirds. Four fourths make one whole and Three thirds make one whole. Equal shares of identical wholes need not have the same shape.		
Lesson 6	**Milestone Task-** We can reason about shapes in many different ways. **LAUNCH** **Whole Class or Groups:** Which one would you rather have? Notice and Wonder **EXPLORE** **Independent or Small Group:** **Seesaw Lesson 6 (Spanish)-** Milestone Task Milestone Task: Working with Figures BLM S C • Review all pages for Working with Figures • Clarify any vocabulary terms or questions		

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	SUMMARIZE Whole Class or Groups: Working with Figures Answer Guide Teacher Working with Figures Rubric Teacher Look at student work or premade samples and discuss. **Core Math to Emphasize** Polygons can be drawn based on their attributes. Rectangles can be partitioned into rows and columns of squares. Shapes can be partitioned into equal shares in different ways. They need not have the same shape.		

Standards in this unit	**Emphasis for Distance Learning**
Geometry **Reason with shapes and their attributes.**	Distance Learning as recommended by the Achieve the Core.
2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.[5] Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. [5]Sizes are compared directly or visually, not compared by measuring.	
2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	
2.G.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	

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