Marietta City Schools
District Unit Planner

1st Grade

Unit Name	**Unit 3:** Sorting, Sifting, Shifting Shapes, and Patterns	**Unit duration (Days)**	***3-4 weeks***

GA K-12 Standards

In this unit, students will identify, describe, build, and compare shapes based on attributes. They will also partition circles and rectangles into two (halves) and four (fourths/quarters) equal parts. Students will also identify and describe real-life patterns based on the attributes of the pattern. Students will explore repeating patterns, inclusive of number strings, shapes, and operations, define and describe attributes, as well as create repeating, shrinking, and growing patterns based on attribute, or repeated addition (by 1s, 2s, 5s and 10s)

1.PAR.3 Identify, describe, extend and create repeating patterns, growing patterns, and shrinking patterns.

- **1.PAR.3.1** Investigate, create, and make predictions about repeating patterns with a core of up to 3 elements resulting from repeating an operation, as a series of shapes, or a number string
- **1.PAR.3.2** Identify, describe, and create growing, shrinking, and repeating patterns based on the repeated addition or subtraction of 1s, 2s, 5s and 10s.

1.GSR.4 Compare shapes, analyze the attributes of shapes, and relate their parts to the whole

- **1.GSR.4.1** Identify common two-dimensional shapes and three-dimensional figures, sort and classify them by their attributes and build and draw shapes that possess defining attributes.
- **1.GSR.4.2** Compose two-dimensional shapes (rectangles, squares, triangles, half-circles, and quarter-circles) and three-dimensional figures (cubes, rectangular prisms, cones, and cylinders) to create a shape formed of two or more common shapes and compose new shapes from the composite shape.
- **1.GSR.4.3** Partition circles and rectangles into two and four equal parts

1.MDR.6: Use appropriate tools to measure, order, and compare intervals of length and time, as well as denominations of money to solve real-life, mathematical problems and analyze graphical displays of data to answer relevant questions.

- **1.MDR.6.1** Estimate, measure, and record lengths of objects using non-standard units, and compare and order up to three objects using the recorded measurements. Describe the objects compared.
- **1.MDR.6.4** Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to compare and order whole numbers.

1.MP.1-8 Display perseverance and patience in problem-solving. Demonstrate skills and strategies needed to succeed in mathematics, including critical thinking, reasoning, and effective collaboration and expression. Seek help and apply feedback. Set and monitor goals.

- **1.MP.1** Make sense of problems and persevere in solving them.

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

The Framework for Statistical Reasoning and the Mathematical Modeling Framework should be taught throughout the units. The K-12 Mathematical Practices should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

Essential Questions/ I CAN Statements
● I can name shapes based on their attributes. ● I can build and draw shapes. ● I can describe equal shares using words such as halves, fourths, quarters, half of, fourth of, and quarter of. ● I can partition circles and rectangles into two and four equal shares. ● I can investigate repeating patterns to make predictions. ● I can create repeating patterns.

Tier II Vocabulary Words- High Frequency Multiple Meaning	**Tier III Vocabulary Words-** Subject/ Content Related Words
Repeating, growing, shrinking, pattern, partition, composite, defining attribute, non-defining attribute, quadrilateral, equal, whole, halves, quarters, one-half, one-fourth, length	Two-dimensional shape, three-dimensional figure, rectangle, square, triangle, circle, half-circle, and quarter-circle, cube, rectangular prism, sphere, cone, cylinder K-12 Mathematics Glossary

Assessments	
Formative Assessment(s): ● MCS K-5 Activity & Assessment Collection	**Summative Assessment:**

***It is the responsibility of each schools' grade level PLC to identify appropriate instructional lessons and resources, based on data and student needs, using the suggested pacing duration**. The following learning tasks have been vetted to align to the standards included in this unit. The GA Dept. of Education strongly recommends that any additional tasks, resources, and/or assessments used for instruction should be vetted using the Quality Assurance Rubric, to ensure alignment to the state standards.*

Objective or Content	**Learning Experiences**	**Differentiation Considerations**

<table>
<tr>
<td>1.PAR.3
Identify, describe, extend and create repeating patterns, growing patterns, and shrinking patterns.</td>
<td colspan="2"><u>Fractions! Easy As Pie</u>
*Also includes 1.GSR.4
In this learning plan, students will identify common two-dimensional shapes and three-dimensional figures and sort and classify them by their attributes. (Suggested timeframe 3-4 days)
● Teacher Guidance
● Student Reproducibles
● Blackline Masters

<u>Exploring Patterns</u>
In this learning plan, students will identify, create, and make predictions about repeating patterns. (Suggested timeframe 3-4 days)
● Teacher Guidance
● Student Reproducibles
● Blackline Masters</td>
<td>Hit The Spot - Solve problems using skip counting by twos, fives, and tens

Number Strips - Solve problems using skip counting by twos, fives, and tens</td>
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<tr>
<td>1.GSR.4
Compare shapes, analyze the attributes of shapes, and relate their parts to the whole</td>
<td><u>GA DOE Learning Plans</u>

<u>Circus Trip</u>
In this learning plan, students will identify common two-dimensional shapes and sort and classify them by their attributes. (Suggested timeframe 2-3 days)
● Teacher Guidance
● Student Reproducibles
● Blackline Masters

<u>Attributes of Shapes</u>
*Also includes 1.MDR.6
In this learning plan, students will identify common two-dimensional shapes and three-dimensional figures and sort and classify them by their attributes. (Suggested timeframe 3-4 days)
● Teacher Guidance
● Student Reproducibles
● Blackline Masters

<u>Pattern Block Pictures</u>
*Also includes 1.MDR.6
In this learning plan, students will identify common two-dimensional shapes sort and classify them by their</td>
<td><u>MCS Curriculum Resources</u>

<u>SAVVAS enVision Topic 14: Reason with Shapes and Their Attributes</u>
Students explore attributes of two and three dimensional shapes. They divide shapes into two and four equal shares to build a conceptual foundation for fractions.
● Lesson 14-1: Use Attributes to Define 2-D Shapes
● Lesson 14-2: Defining and Non-Defining Attributes of 2-D Shapes
● Lesson 14-4: Compose 2-D Shapes
● Lesson 14-5: Compose New 2-D Shapes from 2-D Shapes
● Lesson 14-6: Use Attributes to Define 3-D Shapes
● Lesson 14-7: Defining and Non-Defining Attributes of 3-D Shapes
● Lesson 14-8: Compose with 3-D Shapes

<u>SAVVAS enVision Topic 15: Equal Share of Circles and Rectangles</u>
Students explore attributes of two and three dimensional shapes. They divide shapes into two and four equal shares to build a conceptual foundation for fractions.
● Lesson 15-1: Make Equal Shares</td>
<td>Naming Flat Shapes and Identifying Features - Sort objects by their spatial features, with justification.

Equal Groups - Find halves and quarters of sets, regions, and objects by sharing

Creating Fractions - Find simple fractions of regions

Same But Different - Find simple fractions of regions</td>
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	attributes. In this learning plan, students will also collect, organize, and represent data. Students will use their collected data to ask and answer questions. (Suggested timeframe 3-4 days) • Teacher Guidance • Student Reproducibles • Blackline Masters **Hands on Fractions** *In this learning plan, students will identify equal shares. (Suggested timeframe 2-3 days)* • Teacher Guidance • Student Reproducibles • Blackline Masters	• Lesson 15-2: Make Halves and Fourths of Rectangles and Circles • Lesson 15-3: Understand Halves and Fourths	
1.MDR.6: Use appropriate tools to measure, order, and compare intervals of length and time, as well as denominations of money to solve real-life, mathematical problems and analyze graphical displays of data to answer relevant questions. *Only MDR.6.1 and MDR.6.4 this unit	**Attributes of Shapes** ***Also includes 1.GSR.4*** *In this learning plan, students will identify common two-dimensional shapes and three-dimensional figures and sort and classify them by their attributes. (Suggested timeframe 3-4 days)* • Teacher Guidance • Student Reproducibles • Blackline Masters **Pattern Block Pictures** ***Also includes 1.GSR.4*** *In this learning plan, students will identify common two-dimensional shapes sort and classify them by their attributes. In this learning plan, students will also collect, organize, and represent data. Students will use their collected data to ask and answer questions. (Suggested timeframe 3-4 days)* • Teacher Guidance • Student Reproducibles • Blackline Masters	**SAVVAS enVision Topic 12: Measure Lengths** *Students use indirect measurement to compare two lengths. They measure length using nonstandard units.* • Lesson 12-1: Compare and Order by Length **MIP Module 10: Measuring Lengths with Indirect Comparisons** *The key ideas focused on in this module include comparing and ordering three objects by length, comparing the length of two objects based on a third object, measuring length by lining up objects end to end, understanding that the measurement of an object differs when different-size units are lined up.* • Shorter or Longer, p. 234 • Comparing Measurement with String, p. 239 • Measuring with Square Color Tiles, p. 241-242 **MIP Module 14: Understanding and Describing Shapes and Defining Attributes** *The key ideas focused on in this module include recognizing the defining attributes of flat and solid shapes , describing*	Playing Favourites - Pose, plan, analyze data

		and drawing shapes based on their attributes, and putting together shapes to make composite shapes. ● Sorting Two-Dimensional Shapes by Varying Attributes, p. 305-306 ● Secret Sort, p. 306-308 ● Pattern Block Puzzle, p. 314 ● Pattern Block Shapes, p. 316 ● Introducing Solid Figures, p. 317-318 ● Eliminate It, p. 311 ● Builders, p. 321-322 **MIP Module 15: Partitioning Shapes into Halves and Fourths** *The key ideas focused on in this module include partitioning shapes in halves and fourths in different ways, describing a whole by talking about its parts using words like halves, fourths, and quarters, understanding that when decomposing a whole into equal parts, and the parts get smaller.* ● Equal Parts of a Square, p. 329-330 ● Twins Share a Sheet Cake, p. 330-331 ● Brownie Sharing, p. 333-335	

Content Resources	
MCS Links: ● MCS Math GR1 Curriculum Map ● MCS Math Instructional Framework **GA DOE Links:** *Access all GADOE Curriculum Resources at the following site: GaDOE Inspire.*	**Additional Resources:** ● Suggested Tools: 2D shapes, 3D shapes, nonstandard measurement tools, pennies, nickels, dimes, quarters