

Marietta City Schools

District Unit Planner

Kindergarten

Unit Name

Unit 2: Shapes in My World (2-D shapes)

Unit duration (Days)

3-4 Weeks

GA K-12 Standards

Students will observe shapes in their environment and describe the shapes based on the number of sides, vertices, and other attributes. They will identify basic two-dimensional shapes (squares, circles, triangles, rectangles, hexagons, and octagons) and form larger shapes by putting two or more basic shapes together. They will explain the location of shapes by saying where a shape is in relation to another shape. Students will identify a pattern created by shapes and extend the pattern. They will observe, describe, and compare the measurable attributes of objects and sort objects into categories by an attribute.

K.GSR.8 Identify, describe, and compare basic shapes encountered in the environment, and form two-dimensional shapes and three-dimensional figures.

- **K.GSR.8.1** Identify, sort, classify, analyze, and compare two and three dimensional figures, in different sizes and orientations, using informal language to describe their similarities, differences, number of sides and vertices, and other attributes.
- **K.GSR.8.2** Describe the relative location of an object using positional words.
- **K.GSR.8.3** Use basic shapes to represent specific shapes found in the environment by creating models and drawings.
- **K.GSR.8.4** Use two or more basic shapes to form larger shapes.

<u>K.MDR.7</u> Observe, describe, and compare the physical and measurable attributes of objects and analyze graphical displays of data.

- K.MDR.7.1 Compare, describe, and order objects using measurable attributes (length, weight, height, or weight)
- **K.MDR.7.2** Classify and sort into categories

K.PAR.6 Explain, extend, and create repeating patterns with a repetition, not exceeding 4 and describe patterns involving the passage of time.

• **K.PAR.6.1** Create, extend, and describe repeating patterns with numbers and shapes, and explain the rationale for the pattern.

<u>K.MP.1-8</u> 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. (It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.)

- **K.MP.1** Make sense of problems and persevere in solving them.
- K.MP.2 Reason abstractly and quantitatively.
- **K.MP.3** Construct viable arguments and critique the reasoning of others.
- **K.MP.4** Model with mathematics.

Last Revised: June 2023

- **K.MP.5** Use appropriate tools strategically.
- K.MP.6 Attend to precision.
- K.MP.7 Look for and make use of structure.
- K.MP.8 Look for and express regularity in repeated reasoning.

The <u>Framework for Statistical Reasoning</u> and the <u>Mathematical Modeling Framework</u> should be taught throughout the units. The <u>K-12 Mathematical Practices</u> 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

- (K.GSR.8.1) I can identify, classify, analyze, and compare two dimensional shapes and three dimensional figures. I can sort the shapes based on their attributes.
- (K.GSR.8.2) I can describe where an object is using positional words.
- (K.GSR.8.3) I can locate shapes in my environment by creating models and drawings.
- (K.GSR.8.4) I can use two or more shapes to form larger shapes.
- (K.MDR.7.1) I can classify and sort up to ten objects based on their attributes.
- (K.MDR.7.2) I can count the number of objects in each category and then further sort the categories.
- (K.PAR.6.1) I can create, extend, and describe repeating patterns with numbers and shapes. I can explain the pattern I used/created.

Tier II Vocabulary Words- High Frequency Multiple Meaning	Tier III Vocabulary Words- Subject/ Content Related Words
above, attribute, behind, below, beside, circle, classify, compose, describe, extend, in front of, left, interaction, next to, number, orientation, pattern, property, set, sort, spatial	Height, hexagon, length, numeral, octagon, quadrilateral, rectangle, right, square, triangle, vertices, width <u>K-12 Mathematics Glossary</u>

Assessments

Formative Assessment(s):

- MCS K-5 Activity & Assessment Collection
- K.GSR.8.1 Mini Assessment Identify Shapes
- K.GSR.8.2 Mini Assessment Identify Shapes and Positional Words
- K.GSR.8.1 Mini Assessment Sort Shapes
- K.GSR.84 Mini Assessment Compose Shapes
- MIP: Grouping by Color Formative Assessment (pg 260)
- MIP: Add to Sort Formative Assessment (pg 267)
- MIP: Attribute Blocks Sorting Formative Assessment (pg 278)

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 last Revised: June 2023

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 Menu		Differentiation Considerations
K.GSR.8 Identify, describe, and compare basic shapes encountered in the environment, and form two-dimensional shapes and three-dimensional figures.	GA DOE Learning Plans Counting Routines In this learning plan, students have the opportunity to practice counting forward and backward. Note: The activities in this learning plan are intended to be used at the beginning of a math block and can be interspersed at the discretion of the teacher. • Teacher Guidance • Student Reproducibles What Shape is This? *Also includes MDR.7.2 In this learning plan, students will use given shapes to explore ways in which shapes can be sorted. (Suggested time frame 1-2 days).	Savvas Envision Topic 12: Identify and Describe Shapes Topic 12 formally introduces many geometric ideas by asking students to: (1) identify shapes as two - dimensional (flat). (2) Name squares, circles, triangles, rectangles, hexagons regardless of orientation and size, (3) use terms such as "above," "below," "beside," "next to," "in front of," and "behind" to describe the relative position of shapes in their environments Lesson 12-1:Two-Dimensional (2D) and Three-Dimensional (3D) Shapes Lesson 12-2: Circles and Triangles Lesson 12-3: Squares and Other Rectangles Lesson 12-4: Hexagons	Changing Shape: Sort objects by their spatial features, with justification. Compose and decompose shapes. Getting To School: Conduct investigations using the framework for statistical reasoning: ask, collect, analyze and interpret results using whole-number data.
	 Teacher Guidance Student Reproducibles Shapes All Around *Also includes K.GSR.8 In this learning plan, students will identify various two-dimensional shapes within their world. (Suggested time frame 2-3 days). Teacher Guidance Student Reproducibles Shapes and Positional Words 	MIP: Module 12: Introducing Geometry The key ideas focused on in this module include: distinguishing between flat and solid shapes naming and describing flat and solid shapes accurately using words that show position like above, below, next to, in front of, and behind. Introducing Shapes with Attribute Blocks p. 272 Sorting Attribute Blocks by Shape p. 274 Class Shape Chart p. 276 Develop Positional Terms p, 289 Positional Puppets p, 290 Parking Cars p. 290 Your Partner Says p. 296	

*Also includes K.GSR.8

In this learning plan, students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They will identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., different sizes and orientations). Students will develop spatial reasoning through the exploration of relative positions of objects to one another.

- Teacher Guidance
- Student Reproducibles

K.MDR.7 Observe, describe, and compare the physical and measurable attributes of objects and analyze graphical displays of data.

GADOE Learning Plan:

Shape Attributes:

*Also includes K.GSR.8, K.MDR.7

In this learning plan, students will explore twodimensional shapes and their attributes. Students will use attributes to classify two-dimensional shapes. (Suggested time frame 3-4 days)

- Teacher Guidance
- Student Reproducibles

Composing Shapes:

*Also includes K.GSR.8

In this learning plan, students will practice using two-dimensional shapes to compose (put together) larger shapes. (Suggested time frame 2-3 days)

- Teacher Guidance
- Student Reproducibles

Savvas Envision Topic 13: Analyze, Compare, and Create Shapes

Topic 13 deepens geometric understandings of two- and threedimensional shapes. Students analyze and compare attributes of shapes shown in different sizes and orientations. Students build shapes using concrete materials, and use them to draw other shapes. Students also compose simple shapes to form larger shapes.

- Lesson 13-1: Analyze and Compare Two-Dimensional (2D) Shapes
- Lesson 13-5: Make Two-Dimensional Shapes (2D) from other two-dimensional shapes (2D)
- Lesson 13-6: Build 2D Shapes

MIP: Module 13 Exploring Geometry

The key ideas focused on in this module include: analyzing and comparing two-dimensional and three-dimensional shapes through discussions and modeling combining simple shapes to form larger shapes through models and drawings.

- Alike and Different p. 301
- Triangle or Not Triangle p. 303
- Creating Shapes p. 306
- Cover My Shape p. 312

K.PAR.6 Explain, extend, and create repeating patterns with a repetition, not exceeding 4 and describe patterns involving the passage of time.

Patterns In Our World

*Also includes K.PAR.6, K.GSR.8

In this learning plan, students will create, extend and describe patterns using one or more attributes such as color, shape, size, position, texture, number, etc. Students should begin with simple patterns using one attribute and then move to more challenging patterns using more than one attribute.

- Teacher Guidance
- Student Reproducibles

Content Resources GA DOE Links: Additional Resources: • Number Corner or Calendar Time Unit 2: 2D Shapes in My World GA DOE Grade K Comprehensive Grade Level Overview Number Talks GA DOE Kindergarten Guide for Effective Mathematics Instruction • Estimation Activities/Estimation 180 K-5 Georgia Mathematics Strategies Toolkit Which One Doesn't Belong? Mathematics to Support English Language Learners Same or Different? Georgia Numeracy Project Splat! K-12 Mathematical Modeling Framework K-12 Statistical Reasoning Framework K-12 Mathematical Practices