Grade 1 Mathematics – Unit 2: Geometry

Phoenixville Area School District

Stage 1 Desired Results

PA Core Standards:

CC.2.3.1.A.1 Compose and distinguish between two- and three-dimensional shapes based on their attributes.

CC.2.3.1.A.2 Use the understanding of fractions to partition shapes into halves and quarters.

Transfer

TRANSFER GOALS

Students will be able to independently use their learning to…

- Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem-solving methods, and rationale.
- Persistently apply various problem-solving strategies and organized approaches to accurately understand and solve problems.

Meaning

UNDERSTANDINGS

Students will understand that…

- A shape's characteristics (dimensionality, side measures, angle measures, faces, edges, area, perimeter, and volume) are used for identification.
- Concepts of congruency and similarity are used to relate and compare two- and three-dimensional figures.
- Points, lines, and planes are the building blocks of geometry.

ESSENTIAL QUESTIONS

Students will keep considering...

- How can I put shapes together and take them apart to form other shapes?
- How can I use attributes and properties to solve problems?
- How are geometric shapes and objects compared/classified?

Knowledge and Skills Acquisition

KNOWLEDGE

Students will know…

- Explore plane shapes
- Explore solid shapes
- Shape attributes
- Making pictures and models with shapes
- Seeing shapes around us

SKILLS

Students will be skilled at…

- Identifying plane and solid shapes by labeling pictures of shapes.
- Describing attributes of plane and solid shapes verbally and in writing.

	• Patterns with plane and solid shapes • Fractions (half, quarter, fourth) VOCABULARY • Vertex • Side • Face • Equal • Attribute	• Combining and separating plane and solid shapes to create new shapes. • Identifying plane and solid shapes in real life. • Dividing shapes into two and four equal parts. • Understanding that dividing a whole into more equal parts creates smaller parts. • Extending existing patterns • Creating patterns with plane and solid shapes.

Stage 2 – Evidence

Code A/M/T	Evaluative Criteria	Assessment Evidence	
M	*Rubric*	PERFORMANCE TASK(S) *Students will demonstrate understanding (meaning-making and transfer) through complex performance by...* **Performance Task A: Making a Masterpiece** Design and produce a masterpiece. • *Goal: The goal* is to design a real life picture using plane shapes. • *Role:* You are an artist • Audience: Museum visitors • *Situation:* You will use plane shape tracers to create a picture of something you can see in real life. • Product: You need to create a picture that puts different shapes together to make a design • *Success Criteria:* Your design must include.... -at least 3 different shapes.	Differentiation Considerations: [Work on this section after completing Stages 1-2 of all units]
		Unit 2 Test Part 1: Plane & Solid Shapes Combination of multiple choice and fill in the blank questions.	Differentiation Considerations: N/A

		• Identify shapes in real world items given a list of shape names • Identify real world items that have a specific shape • Finding a pair of shapes that are the same but different sizes • Identify shapes by attributes • Select shapes that could be put together to create a new shape • Complete shape pattern • Identify shapes that move in a certain way from a group of 3D shapes • Identify and count groups of shapes inside of a picture	
		Unit 2 Test Part 2: Fractions Combination of multiple choice and fill in the blank questions. • Given two squares, students will divide them differently to create two new shapes. • Identify shapes divided into equal portions • Color in a shape to display a specific fraction given (¼, ½) • Divide a circle into fourths and then color ¼ red and ¼ blue.	