Unit 6 Reveal Grade 1

Content Area: **Math**
Course(s): **Math**
Time Period: **December**
Length: **3 weeks**
Status: **Published**

Unit Overview

UNIT 6 PLANNER
Shapes and Solids

PACING: 10 days

LESSON		MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener	Shape Sudoku	Use prior knowledge of shapes and color to complete mini-sudoku style puzzles.				
						Math Terms
6-1	Understand Defining Attributes of Shapes	Students describe defining attributes of 2-dimensional shapes.	Students describe defining attributes of 2-dimensional shapes using *are* and *has*.	Students discuss how a rule or routine can help develop mathematical skills and knowledge and be responsible contributors.	6-1	2-dimensional (2-D) shape attribute, closed defining attribute side, vertex
6-2	Understand Non-Defining Attributes	Students describe attributes that do not define shapes. Students draw 2-dimensional shapes given defining and non-defining attributes.	Students use *has* and *are* to describe and draw 2-dimensional shapes given defining and non-defining attributes.	Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.	6-2	2-dimensional (2-D) shape attribute closed defining attribute
Math Probe	2-Dimensional Shape Sort	Sort shapes to demonstrate understanding of triangle and rectangle attributes.				
6-3	Compose Shapes	Students put together 2-dimensional shapes to create a composite shape.	Students use *using* to explain how to put together 2-dimensional shapes to create a composite shape.	Students employ techniques that can be used to help maintain focus and manage reactions to potentially frustrating situations.	6-3	2-dimensional (2-D) shape
6-4	Build New Shapes	Students create a new 2-dimensional composite shape from an existing composite shape.	Students describe how to create a new 2-dimensional shape from an existing composite shape using *can*.	Students identify personal traits that make them good students, peers, and math learners.	6-4	2-dimensional (2-D) shape
6-5	Understand Attributes of Solids	Students describe attributes that define and do not define solids.	Students use *has* to describe attributes that define and do not define solids.	Students discuss the value of hearing different viewpoints and approaches to problem solving.	6-5	3-dimensional (3-D) shape apex base defining attribute edge, face rectangular prism
6-6	Build New Solids	Students put together solids to create a composite solid shape. Students create a new solid composite shape from an existing solid composite shape.	Students use *can* to describe how to put together solids to create a composite solid shape from an existing solid composite shape.	Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.	6-6	3-dimensional (3-D) shape rectangular prism
Unit Review **Fluency Practice**						
Unit Assessment **Performance Task**						

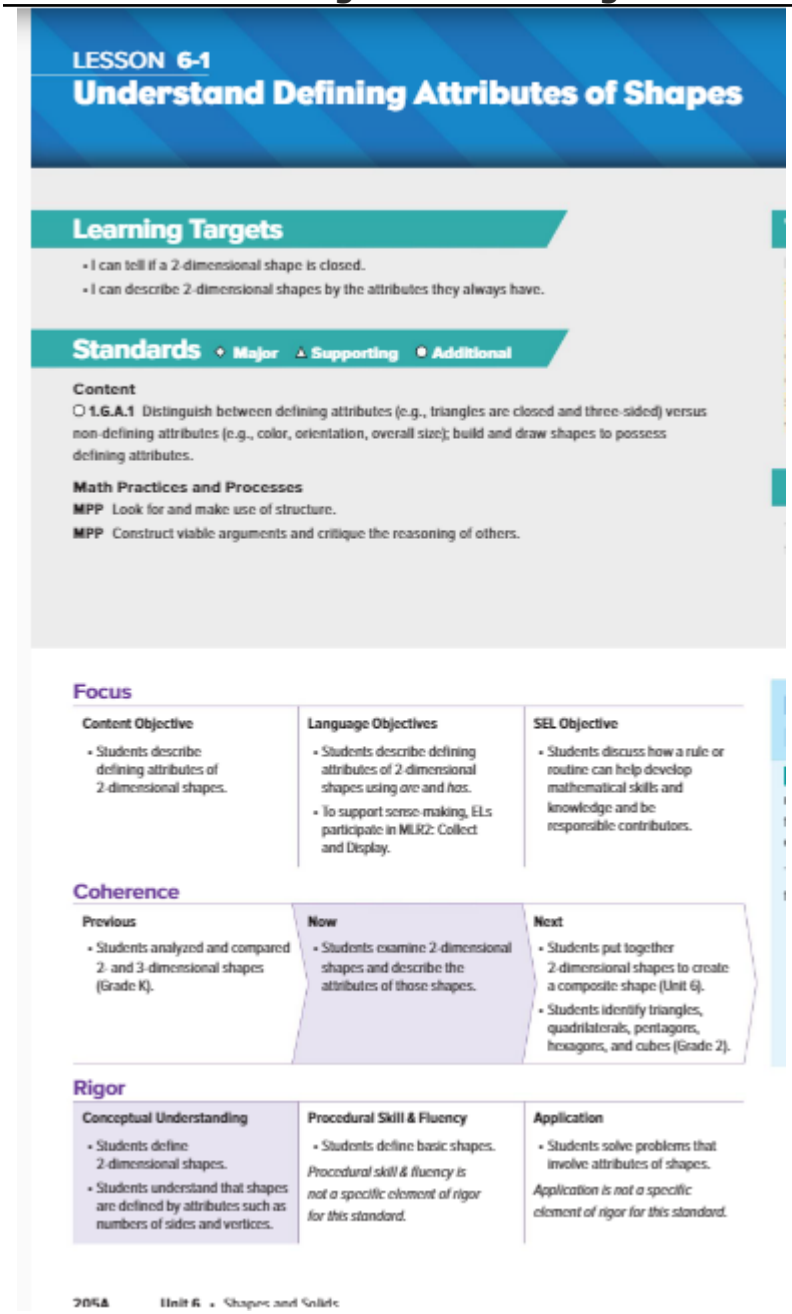
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 6-1

Understand Defining Attributes of Shapes

Learning Targets

- I can tell if a 2-dimensional shape is closed.
- I can describe 2-dimensional shapes by the attributes they always have.

Standards ◆ Major △ Supporting ○ Additional

Content

○ **1.G.A.1** Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Construct viable arguments and critique the reasoning of others.

Focus

Content Objective	Language Objectives	SEL Objective
• Students describe defining attributes of 2-dimensional shapes.	• Students describe defining attributes of 2-dimensional shapes using *are* and *has*. • To support sense-making, ELs participate in MLR2: Collect and Display.	• Students discuss how a rule or routine can help develop mathematical skills and knowledge and be responsible contributors.

Coherence

Previous	Now	Next
• Students analyzed and compared 2- and 3-dimensional shapes (Grade K).	• Students examine 2-dimensional shapes and describe the attributes of those shapes.	• Students put together 2-dimensional shapes to create a composite shape (Unit 6). • Students identify triangles, quadrilaterals, pentagons, hexagons, and cubes (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students define 2-dimensional shapes. • Students understand that shapes are defined by attributes such as numbers of sides and vertices.	• Students define basic shapes. *Procedural skill & fluency is not a specific element of rigor for this standard.*	• Students solve problems that involve attributes of shapes. *Application is not a specific element of rigor for this standard.*

LESSON 6-2

Understand Non-Defining Attributes

Learning Targets

- I can identify 2-dimensional shapes of different colors, sizes, and direction.
- I can explain why changing the color, size, or direction does not change the type of shape.

Standards ◆ Major △ Supporting ○ Additional

Content

○ **1.G.A.1** Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Construct viable arguments and critique the reasoning of others.

Focus

Content Objectives	Language Objectives	SEL Objective
• Students describe attributes that do not define shapes. • Students draw 2-dimensional shapes given defining and non-defining attributes.	• Students use *has* and *are* to describe and draw 2-dimensional shapes given defining and non-defining attributes. • To optimize output, ELs participate in MLR4: Information Gap.	• Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.

Coherence

Previous	Now	Next
• Students analyzed and compared 2- and 3-dimensional shapes (Grade K). • Students described defining attributes of 2-dimensional shapes (Unit 6).	• Students distinguish between attributes that define shapes and those that do not. • Students are given attributes of 2-dimensional shapes to draw the shapes.	• Students put together 2-dimensional shapes to create a composite shape (Unit 6). • Students identify triangles, quadrilaterals, pentagons, hexagons, and cubes (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that shapes have defining and non-defining attributes.	• Students describe non-defining attributes of basic shapes. *Procedural skill & fluency is not a specific element of rigor for this standard.*	• Students solve problems that involve defining and non-defining attributes of shapes. *Application is not a specific element of rigor for this standard.*

LESSON 6-3

Compose Shapes

Learning Targets

- I can use 2-dimensional shapes to make other 2-dimensional shapes.
- I can explain how to use shapes to make other shapes.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **1.G.A.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) and three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Math Practices and Processes

MPP Attend to precision.

MPP Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objectives	SEL Objective
• Students put together 2-dimensional shapes to create a composite shape.	• Students use *using* to explain how to put together 2-dimensional shapes to create a composite shape. • To cultivate conversation, ELs participate in MLR8: Discussion Supports.	• Students employ techniques that can be used to help maintain focus and manage reactions to potentially frustrating situations.

Coherence

Previous	Now	Next
• Students composed simple shapes to form larger shapes (Grade K).	• Students make composite shapes by putting together 2-dimensional shapes.	• Students recognize and draw shapes with specified attributes (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that shapes can be joined to create new shapes with different properties.	• Students build composite shapes. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students use shapes to build composite shapes. *Application is not a targeted element of rigor for this standard.*

LESSON 6-4

Build New Shapes

Learning Targets

- I can take shapes apart and put them together to make a new shape.
- I can explain how to take shapes apart and put them together to make a new shape.

Standards ◆ Major ▲ Supporting ○ Additional

Content

○ **1.G.A.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) and three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Math Practices and Processes

MPP Model with mathematics.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
• Students create a new 2-dimensional composite shape from an existing composite shape.	• Students describe how to create a new 2-dimensional shape from an existing composite shape using *can*. • To maximize linguistic and cognitive meta-awareness, ELs participate in MLR7: Compare and Connect.	• Students identify personal traits that make them good students, peers, and math learners.

Coherence

Previous	Now	Next
• Students composed simple shapes to form larger shapes (Grade K).	• Students break apart an existing shape to create a new 2-dimensional shape.	• Students recognize and draw shapes with specified attributes (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that shapes can be joined to create new shapes with different properties.	• Students draw composite shapes. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students use shapes to build composite shapes. *Application is not a targeted element of rigor for this standard.*

LESSON 6-5

Understand Attributes of Solids

Learning Targets

- I can describe 3-dimensional shapes by the attributes they always have.
- I can recognize that color, size, and direction are non-defining attributes of 3-dimensional shapes.

Standards ◆ Major ▲ Supporting ○ Additional

Content

○ **1.G.A.1** Distinguish between defining attributes (e.g, triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

Math Practices and Processes

MPP Look for and make use of structure.

MPP Use appropriate tools strategically.

Focus

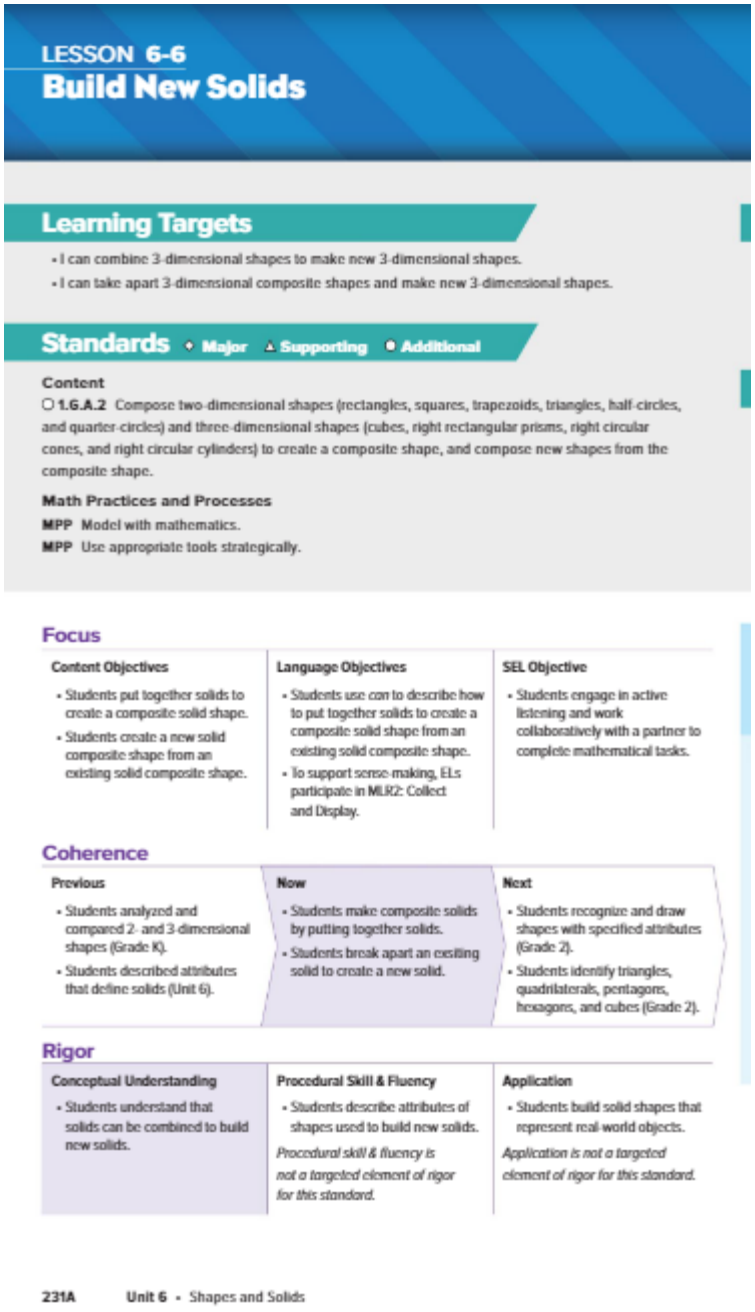
Content Objective	Language Objectives	SEL Objective
• Students describe attributes that define and do not define solids.	• Students use *has* to describe attributes that define and do not define solids. • To optimize output, ELs participate in MLR5: Co-Craft Questions and Problems.	• Students discuss the value of hearing different viewpoints and approaches to problem solving.

Coherence

Previous	Now	Next
• Students analyzed and compared 2- and 3-dimensional shapes (Grade K). • Students described attributes that define shapes (Unit 6).	• Students distinguish between attributes that define solids and those that do not.	• Students create a solid from an existing solid (Unit 6). • Students recognize and draw shapes with specified attributes (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that solid shapes have defining and non-defining attributes.	• Students describe attributes of cubes, cylinders, cones, and rectangular prisms. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students solve problems that involve sorting solid shapes. *Application is not a targeted element of rigor for this standard.*



LESSON 6-6

Build New Solids

Learning Targets

- I can combine 3-dimensional shapes to make new 3-dimensional shapes.
- I can take apart 3-dimensional composite shapes and make new 3-dimensional shapes.

Standards ◆ Major ▲ Supporting ● Additional

Content

○ **1.G.A.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) and three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Math Practices and Processes

MPP Model with mathematics.

MPP Use appropriate tools strategically.

Focus

Content Objectives	Language Objectives	SEL Objective
• Students put together solids to create a composite solid shape. • Students create a new solid composite shape from an existing solid composite shape.	• Students use *can* to describe how to put together solids to create a composite solid shape from an existing solid composite shape. • To support sense-making, ELs participate in MLR2: Collect and Display.	• Students engage in active listening and work collaboratively with a partner to complete mathematical tasks.

Coherence

Previous	Now	Next
• Students analyzed and compared 2- and 3-dimensional shapes (Grade K). • Students described attributes that define solids (Unit 6).	• Students make composite solids by putting together solids. • Students break apart an existing solid to create a new solid.	• Students recognize and draw shapes with specified attributes (Grade 2). • Students identify triangles, quadrilaterals, pentagons, hexagons, and cubes (Grade 2).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that solids can be combined to build new solids.	• Students describe attributes of shapes used to build new solids. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students build solid shapes that represent real-world objects. *Application is not a targeted element of rigor for this standard.*

Integration of Career Readiness, Life Literacies and Key Skills

PFL.9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
PFL.9.1.2.CR.2	List ways to give back, including making donations, volunteering, and starting a business.
PFL.9.1.2. FI.1	Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).
PFL.9.1.2.FP.1	Explain how emotions influence whether a person spends or saves.
PFL.9.1.2.FP.3	Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).

PFL.9.1.2.PB.1	Determine various ways to save and places in the local community that help people save and accumulate money over time.
PFL.9.1.2.PB.2	Explain why an individual would choose to save money.
TECH.9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).
TECH.9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
TECH.9.4.2.CT.2	Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).
TECH.9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
TECH.9.4.2.DC.3	Explain how to be safe online and follow safe practices when using the internet (e.g., 8.1.2.NI.3, 8.1.2.NI.4).
TECH.9.4.2.DC.6	Identify respectful and responsible ways to communicate in digital environments.
TECH.9.4.2.DC.7	Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).
TECH.9.4.2.TL.2	Create a document using a word processing application.
TECH.9.4.2.TL.5	Describe the difference between real and virtual experiences.
TECH.9.4.2.TL.6	Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).
TECH.9.4.2.TL.7	Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

Technology and Design Integration

CS.K-2.8.1.2.AP.4	Break down a task into a sequence of steps.
CS.K-2.8.1.2.AP.5	Describe a program's sequence of events, goals, and expected outcomes.
CS.K-2.8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
CS.K-2.8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
CS.K-2.8.1.2.DA.3	Identify and describe patterns in data visualizations.
CS.K-2.8.1.2.DA.4	Make predictions based on data using charts or graphs.
CS.K-2.8.2.2.ITH.4	Identify how various tools reduce work and improve daily tasks.

Interdisciplinary Connections

LA.RI.1.1	Ask and answer questions about key details in a text.
LA.RI.1.2	Identify the main topic and retell key details of a text.
LA.RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.
LA.RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
LA.RI.1.5	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
LA.RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
LA.RI.1.7	Use the illustrations and details in a text to describe its key ideas.

LA.RI.1.8	Identify the reasons an author gives to support points in a text and explain the application of this information with prompting as needed.
LA.RI.1.9	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
LA.RI.1.10	With prompting and support, read informational texts at grade level text complexity or above.
LA.W.1.5	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and self-reflection, and add details to strengthen writing and ideas as needed.
LA.SL.1.1	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
LA.L.1.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.

- **Definitions of Differentiation Components**:

    - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
    - Process – how the student will acquire the content information.
    - Product – how the student will demonstrate understanding of the content.
    - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

Differentiation occurring in this unit:

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Modifications and Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMOCATIONS spreadsheet in this discipline.

Modifications and Accommodations used in this unit:

Benchmark Assessments

Benchmark Assessments are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

Schoolwide Benchmark assessments:

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

Additional Benchmarks used in this unit:

Reveal Unit assessments

Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

Formative Assessments used in this unit:

Teacher observation

Checklists

Questioning and Discussion

Quizzes

Summative Assessments

summative assessments evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

Summative assessments for this unit:

End of Unit assessments

Standards

MATH.1.G.A.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
MATH.1.G.A.2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.