Unit 13 Reveal Grade K

Content Area: **Math**
Course(s): **Language Arts, Art**
Time Period: **May**
Length: **2 weeks**
Status: **Published**

Unit Overview

UNIT 13 PLANNER

Analyze, Compare, and Compose Shapes

PACING: 10 days

LESSON		MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener	IGNITE More Shapes Into Shapes Students continue to explore the sizes and shapes of pattern blocks.					
						Math Terms
13-1	Compare and Contrast 2-Dimensional Shapes	Students compare and contrast 2-dimensional shapes based on defining attributes.	Students use adjectives and nouns to compare 2-dimensionsal shapes.	Students determine the strategies and analyses necessary to make informed decisions when engaging in mathematical practices.	13-1	2-dimensional shape flat shape side vertex (corner)
Math Probe	Which Shape Does Not Belong? Students determine which shape in a group does not belong.					
13-2	Build and Draw 2-Dimensional Shapes	Students draw 2-dimensional shapes.	Students use commands to draw 2-dimensional shapes.	Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.	13-2	2-dimensional shape flat shape side vertex (corner)
13-3	Compose 2-Dimensional Shapes	Students use flat shapes to form larger shapes.	Students use the phrasal verb *put together* and the verb *join* to explain how to form larger shapes out of smaller shapes.	Students explore taking different perspectives on approaches to problem solving.	13-3	2-dimensional shape flat shape
13-4	Compare and Contrast 3-Dimensional Shapes	Students compare and contrast 3-dimensional shapes based on defining attributes.	Students use adjectives to describe 2-dimensional and 3-dimensional shapes.	Students develop and execute a plan, including selecting tools for mathematical problem solving.	13-4	3-dimensional shape apex base face solid shape vertex
13-5	Build 3-Dimensional Shapes	Students build 3-dimensional shapes.	Students use commands to build 3-dimensional shapes.	Students identify and discuss the emotions experienced during math learning.	13-5	3-dimensional shape apex base build face solid shape vertex
13-6	Describe 3-Dimensional Shapes in the World	Students identify real-world objects that are shaped like cubes, cones, spheres, and cylinders.	Students identify real-world objects shaped like 3-dimensional shapes by naming common and proper nouns.	Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.	13-6	3-dimensional shape apex base face vertex
Fluency Practice **Unit Review**						
Unit Assessment **Performance Task**						

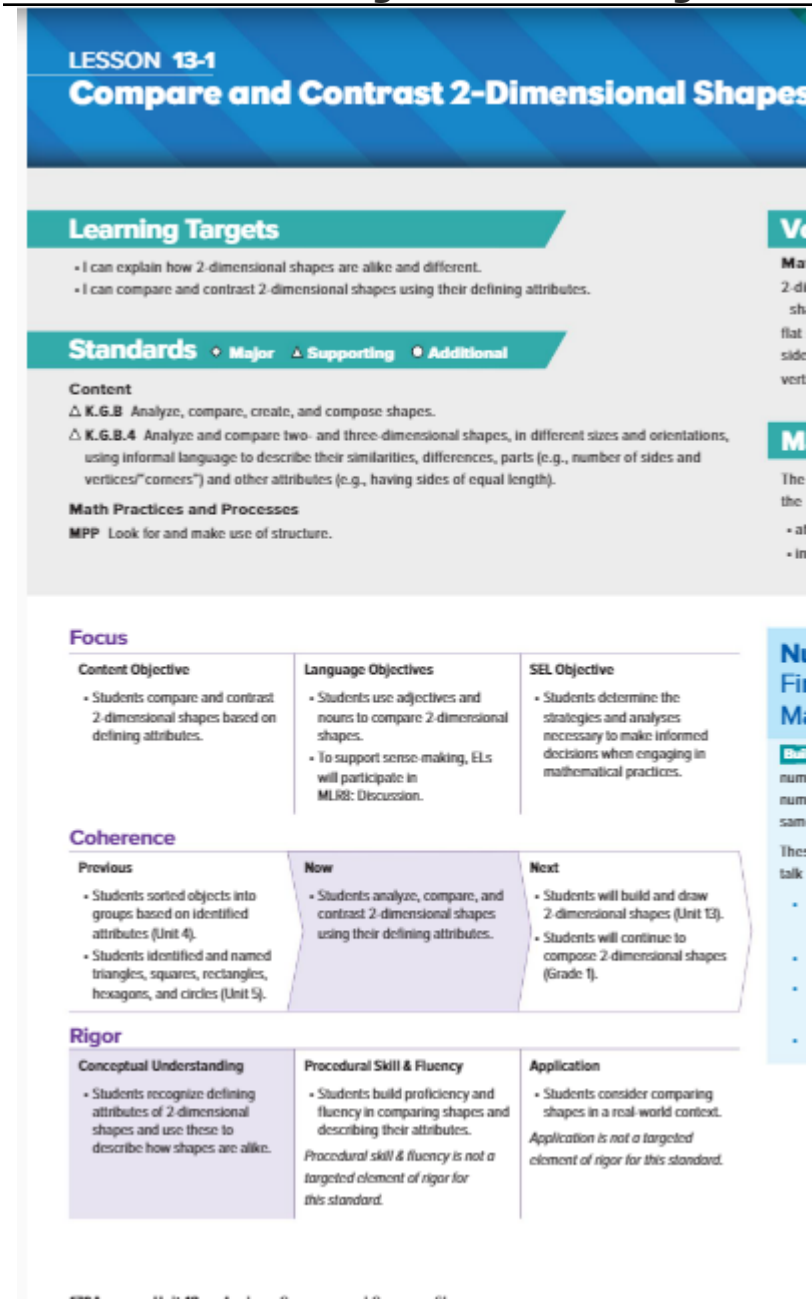
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 13-1

Compare and Contrast 2-Dimensional Shapes

Learning Targets

- I can explain how 2-dimensional shapes are alike and different.
- I can compare and contrast 2-dimensional shapes using their defining attributes.

Standards ◆ Major ▲ Supporting ● Additional

Content

▲ **K.G.B** Analyze, compare, create, and compose shapes.

▲ **K.G.B.4** Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

Math Practices and Processes

MPP Look for and make use of structure.

Focus

Content Objective

- Students compare and contrast 2-dimensional shapes based on defining attributes.

Language Objectives

- Students use adjectives and nouns to compare 2-dimensional shapes.
- To support sense-making, ELs will participate in MLR8: Discussion.

SEL Objective

- Students determine the strategies and analyses necessary to make informed decisions when engaging in mathematical practices.

Coherence

Previous

- Students sorted objects into groups based on identified attributes (Unit 4).
- Students identified and named triangles, squares, rectangles, hexagons, and circles (Unit 5).

Now

- Students analyze, compare, and contrast 2-dimensional shapes using their defining attributes.

Next

- Students will build and draw 2-dimensional shapes (Unit 13).
- Students will continue to compose 2-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding

- Students recognize defining attributes of 2-dimensional shapes and use these to describe how shapes are alike.

Procedural Skill & Fluency

- Students build proficiency and fluency in comparing shapes and describing their attributes.

Procedural skill & fluency is not a targeted element of rigor for this standard.

Application

- Students consider comparing shapes in a real-world context.

Application is not a targeted element of rigor for this standard.

LESSON 13-2

Build and Draw 2-Dimensional Shapes

Learning Targets

- I can build 2-dimensional shapes.
- I can draw flat shapes.

Standards ◆ Major △ Supporting ○ Additional

Content

△ **K.G.B** Analyze, compare, create, and compose shapes.

△ **K.G.B.5** Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Math Practices and Processes

MPP Attend to precision.

Focus

Content Objective	Language Objectives	SEL Objective
• Students draw 2-dimensional shapes.	• Students use commands to draw 2-dimensional shapes. • To optimize output, ELs will participate in MLR1: Stronger and Clearer Each Time.	• Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.

Coherence

Previous	Now	Next
• Students compared and contrasted 2-dimensional shapes using their defining attributes (Unit 13).	• Students apply their knowledge of 2-dimensional shapes to draw shapes with specific attributes.	• Students compose new 2-dimensional shapes (Unit 13). • Students continue to build and draw 2-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students use their knowledge of defining attributes of 2-dimensional shapes to draw shapes.	• Students build proficiency and fluency in naming 2-dimensional shapes and their attributes. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of 2-dimensional shapes to draw shapes. *Application is not a targeted element of rigor for this standard.*

LESSON 13-3

Compose 2-Dimensional Shapes

Learning Targets

- I can use 2-dimensional shapes to form larger 2-dimensonal shapes.
- I can explain how to use shapes to form larger shapes.

Standards ◆ Major △ Supporting ○ Additional

Content

△ **K.G.B** Analyze, compare, create, and compose shapes.

△ **K.G.B.6** Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"

Math Practices and Processes

MPP Look for and make use of structure.

Focus

Content Objective

- Students use flat shapes to form larger shapes.

Language Objectives

- Students use the phrasal verb *put together* and the verb *join* to explain how to form larger shapes out of smaller shapes.
- To optimize output, ELs will participate in MLR3: Critique, Correct, and Clarify.

SEL Objective

- Students explore taking different perspectives on approaches to problem solving.

Coherence

Previous

- Students identified 2-dimensional shapes (Unit 5).
- Students built and drew 2-dimensional shapes (Unit 13).

Now

- Students apply their understanding of 2-dimensional shapes to compose larger shapes from smaller shapes.

Next

- Students model shapes in a real-world context (Unit 13).
- Students compose 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding

- Students build on their understanding of shapes to build larger 2-dimensional shapes from smaller shapes.

Procedural Skill & Fluency

- Students build proficiency and fluency in naming 2-dimensional shapes and their attributes.

Procedural skill & fluency is not a targeted element of rigor for this standard.

Application

- Students apply their understanding of 2-dimensional shapes to build models of shapes.

Application is not a targeted element of rigor for this standard.

LESSON 13-4

Compare and Contrast 3-Dimensional Sha

Learning Targets

- I can explain how 3-dimensional shapes are alike and different.
- I can compare and contrast 3-dimensional shapes using their defining attributes.

Standards ◆ Major △ Supporting ○ Additional

Content

△ **K.G.B** Analyze, compare, create, and compose shapes.

△ **K.G.B.4** Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/corners) and other attributes (e.g., having sides of equal length).

Math Practices and Processes

MPP Look for and make use of structure.

Focus

Content Objective	Language Objectives	SEL Objective
• Students compare and contrast 3-dimensional shapes based on defining attributes.	• Students use adjectives to describe 2-dimensional and 3-dimensional shapes. • To support sense-making, ELs will participate in MLR2: Collect and Display.	• Students develop and execute a plan, including selecting tools for mathematical problem solving.

Coherence

Previous	Now	Next
• Students differentiated between 2-dimensional and 3-dimensional shapes (Unit 11). • Students compared flat shapes using their defining attributes (Unit 13).	• Students apply their understanding of 3-dimensional shapes to compare and contrast 3-dimensional shapes using their defining attributes.	• Students build 3-dimensional shapes (Unit 13). • Students compose 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students recognize defining attributes of 3-dimensional shapes and use these to describe how shapes are alike and different.	• Students develop proficiency with identifying attributes of solid shapes and using those attributes to compare shapes. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students compare and contrast a variety of 3-dimensional shapes. *Application is not a targeted element of rigor for this standard.*

LESSON 13-5

Build 3-Dimensional Shapes

Learning Targets

- I can build 3-dimensional shapes.
- I can explain how to build solid shapes.

Standards ◇ Major △ Supporting ○ Additional

Content

△ **K.G.B** Analyze, compare, create, and compose shapes.

△ **K.G.B.5** Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

Focus

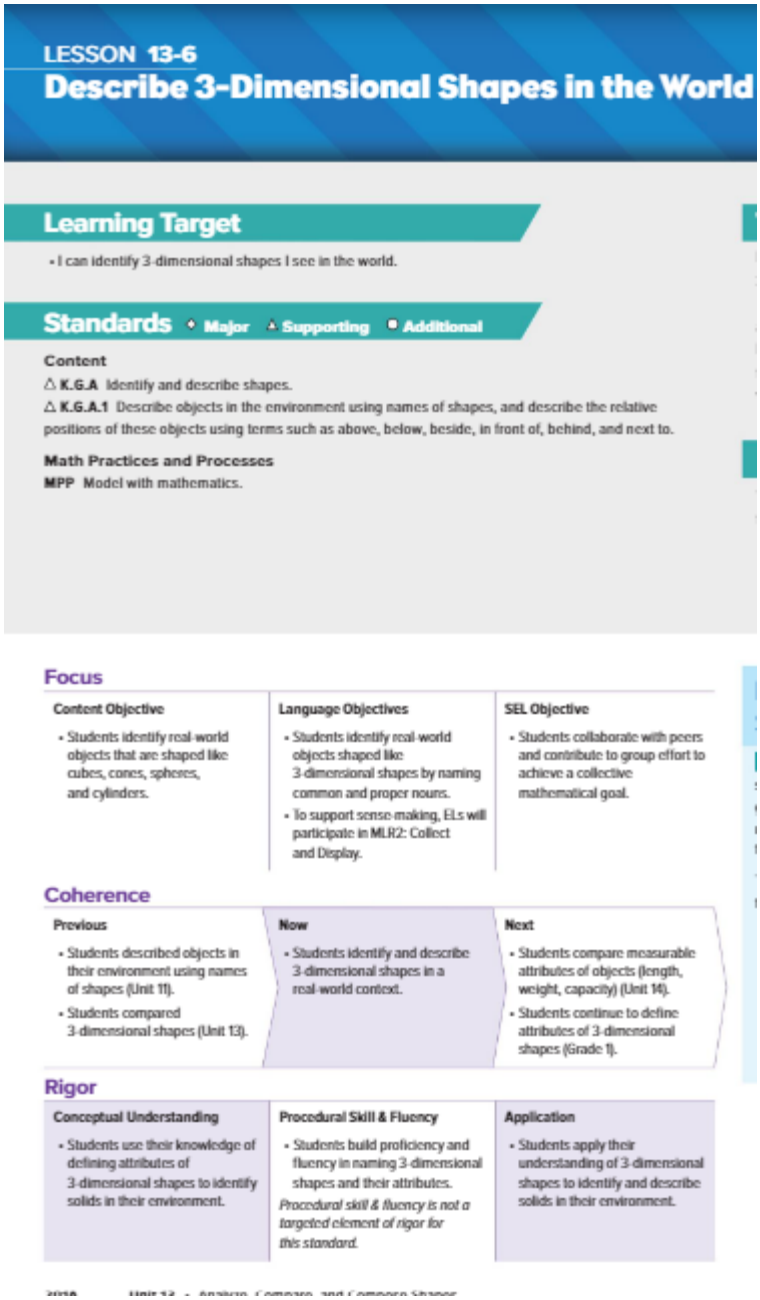
Content Objective	Language Objectives	SEL Objective
• Students build 3-dimensional shapes.	• Students use commands to build 3-dimensional shapes. • To optimize output, ELs will participate in MLR1: Stronger and Clearer Each Time.	• Students identify and discuss the emotions experienced during math learning.

Coherence

Previous	Now	Next
• Students recognized and named 3-dimensional shapes (Unit 11). • Students built and drew 2-dimensional shapes (Unit 13).	• Students apply their understanding of shapes to build 3-dimensional shapes.	• Students identify 3-dimensional shapes in the world (Unit 13). • Students continue to compose 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students use their knowledge of defining attributes of 3-dimensional shapes to build shapes.	• Students develop proficiency in naming 3-dimensional shapes and their attributes while building those shapes. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of 3-dimensional shapes to build representations of shapes. *Application is not a targeted element of rigor for this standard.*



LESSON 13-6

Describe 3-Dimensional Shapes in the World

Learning Target

- I can identify 3-dimensional shapes I see in the world.

Standards ◆ Major △ Supporting ▢ Additional

Content

△ **K.G.A** Identify and describe shapes.

△ **K.G.A.1** Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

Math Practices and Processes

MPP Model with mathematics.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify real-world objects that are shaped like cubes, cones, spheres, and cylinders.	• Students identify real-world objects shaped like 3-dimensional shapes by naming common and proper nouns. • To support sense-making, ELs will participate in MLR2: Collect and Display.	• Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.

Coherence

Previous	Now	Next
• Students described objects in their environment using names of shapes (Unit 11). • Students compared 3-dimensional shapes (Unit 13).	• Students identify and describe 3-dimensional shapes in a real-world context.	• Students compare measurable attributes of objects (length, weight, capacity) (Unit 14). • Students continue to define attributes of 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students use their knowledge of defining attributes of 3-dimensional shapes to identify solids in their environment.	• Students build proficiency and fluency in naming 3-dimensional shapes and their attributes. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students apply their understanding of 3-dimensional shapes to identify and describe solids in their environment.

Integration of Career Readiness, Life Literacies and Key Skills

9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
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).
9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
9.1.2.CR.2	List ways to give back, including making donations, volunteering, and starting a business.
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).
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).

9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
9.1.2.FP.1	Explain how emotions influence whether a person spends or saves.
9.1.2.FP.3	Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).
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).
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.
9.1.2.PB.2	Explain why an individual would choose to save money.
9.4.2.DC.6	Identify respectful and responsible ways to communicate in digital environments.
9.4.2.DC.7	Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).
9.4.2.TL.2	Create a document using a word processing application.
9.4.2.TL.5	Describe the difference between real and virtual experiences.
9.4.2.TL.6	Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).
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

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.
8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
8.1.2.DA.3	Identify and describe patterns in data visualizations.
8.1.2.DA.4	Make predictions based on data using charts or graphs.
8.1.2.AP.4	Break down a task into a sequence of steps.
8.1.2.AP.5	Describe a program’s sequence of events, goals, and expected outcomes.
8.2.2.ITH.4	Identify how various tools reduce work and improve daily tasks.

Interdisciplinary Connections

LA.RL.K.4	Ask and answer questions about unknown words in a text.
LA.RI.K	Reading Informational Text
LA.RI.K.1	With prompting and support, ask and answer questions about key details in a text.
LA.RI.K.2	With prompting and support, identify the main topic and retell key details of a text.
LA.RI.K.3	With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
LA.RI.K.4	With prompting and support, ask and answer questions about unknown words in a text.
LA.RI.K.7	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
LA.RI.K.8	With prompting and support, identify the reasons an author gives to support points in a text.

LA.RI.K.10	Actively engage in group reading activities with purpose and understanding.
LA.W.K.5	With guidance and support from adults, strengthen writing through response and self-reflection using questions and suggestions from peers (e.g., adding details).
LA.SL.K	Speaking and Listening
LA.SL.K.1	Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
LA.SL.K.2	Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
LA.SL.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

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

Instructional Materials

See above

Standards

MA.K.G.A.1	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
MA.K.G.B.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
MA.K.G.B.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
MA.K.G.B.6	Compose simple shapes to form larger shapes.