Unit 11 Reveal Grade K

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

Unit Overview

UNIT 11 PLANNER

3-Dimensional Shapes

PACING: 10 days

LESSON	MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener Which Shape Is Different? Students think about how shapes in a group differ.					
11-1 2-Dimensional and 3-Dimensional Shapes	Students identify shapes as 2-dimensional or 3-dimensional.	Students identify and describe the difference between 2-dimensional and 3-dimensional shapes using adjectives and nouns.	Students break down a situation to identify the problem at hand.	**11-1**	Math Terms 2-dimensional shape 3-dimensional shape flat shape solid shape
Math Probe Flat Shape or Solid Shape? Students distinguish flat shapes from solids.					
11-2 Cubes	Students identify, name, and describe cubes.	Students identify, name, and describe cubes using precise adjectives and nouns specific to cubes.	Students recognize personal strengths and areas for growth through thoughtful self-reflection.	**11-2**	cube face vertex
11-3 Spheres	Students identify, name, and describe spheres.	Students identify, name, and describe spheres using precise adjectives and nouns specific to spheres.	Students exchange ideas for mathematical problem-solving with a peer, listening attentively and providing thoughtful and constructive feedback.	**11-3**	rounded surface sphere
11-4 Cylinders	Students identify, name, and describe cylinders.	Students identify, name, and describe cylinders using precise adjectives and nouns specific to cylinders.	Students set a focused mathematical goal and make a plan for achieving that goal.	**11-4**	base cylinder
11-5 Cones	Students identify, name, and describe cones.	Students identify, name, and describe cones using precise adjectives and nouns specific to cones.	Students recognize and work to understand the emotions of others and practice empathetic responses.	**11-5**	apex base cone
11-6 Describe Solids	Students describe objects using the names of shapes and their relative position.	Students use prepositional phrases such as *next to*, *above*, and *between* to describe the relative position of shapes.	Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.	**11-6**	above behind below beside in front of next to
Unit Review **Fluency Practice**					
Unit Assessment **Performance Task**					

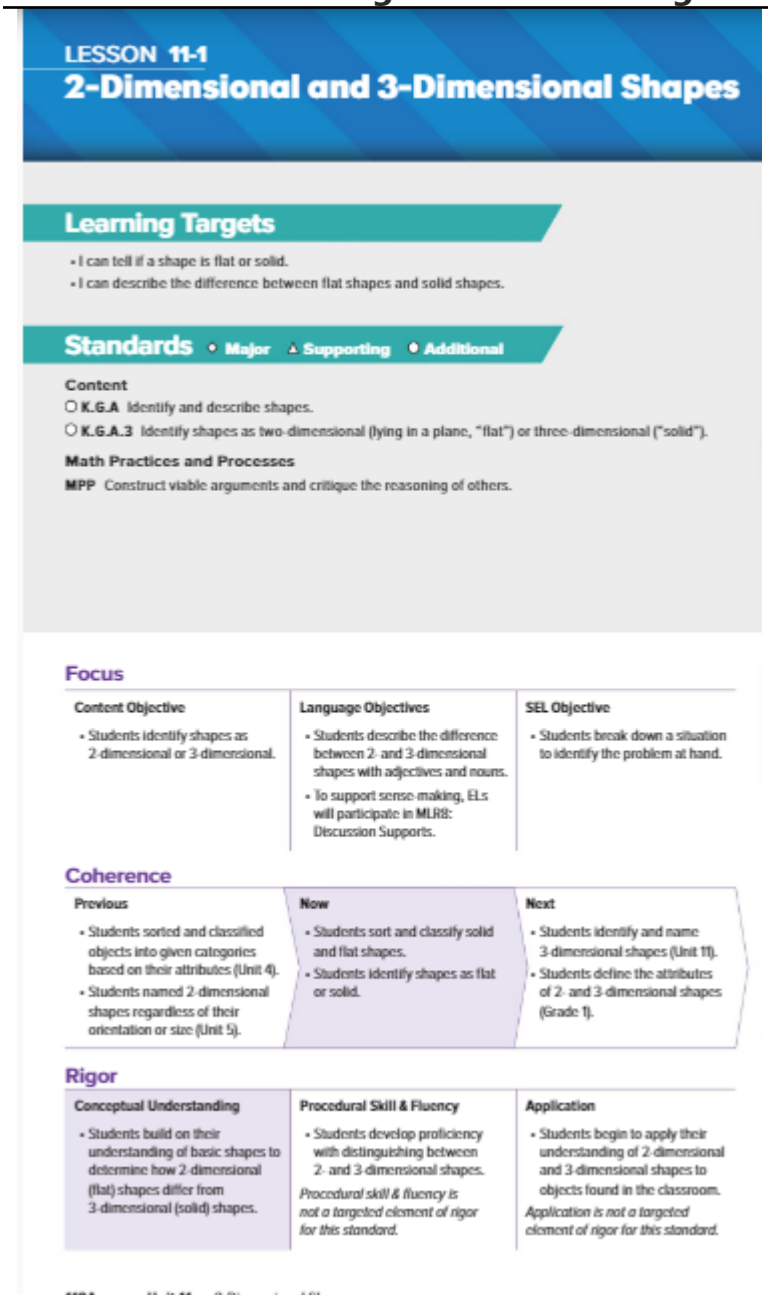
Enduring Understandings

See Above

Essential Questions

See Above

Instructional Strategies and Learning Activities



LESSON 11-1

2-Dimensional and 3-Dimensional Shapes

Learning Targets

- I can tell if a shape is flat or solid.
- I can describe the difference between flat shapes and solid shapes.

Standards ◆ Major ▲ Supporting ○ Additional

Content

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

○ **K.G.A.3** Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify shapes as 2-dimensional or 3-dimensional.	• Students describe the difference between 2- and 3-dimensional shapes with adjectives and nouns. • To support sense-making, ELs will participate in MLR8: Discussion Supports.	• Students break down a situation to identify the problem at hand.

Coherence

Previous	Now	Next
• Students sorted and classified objects into given categories based on their attributes (Unit 4). • Students named 2-dimensional shapes regardless of their orientation or size (Unit 5).	• Students sort and classify solid and flat shapes. • Students identify shapes as flat or solid.	• Students identify and name 3-dimensional shapes (Unit 11). • Students define the attributes of 2- and 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students build on their understanding of basic shapes to determine how 2-dimensional (flat) shapes differ from 3-dimensional (solid) shapes.	• Students develop proficiency with distinguishing between 2- and 3-dimensional shapes. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students begin to apply their understanding of 2-dimensional and 3-dimensional shapes to objects found in the classroom. *Application is not a targeted element of rigor for this standard.*

LESSON 11-2

Cubes

Learning Targets

- I can identify and name a cube.
- I can describe a cube.

Standards ◆ Major ▲ Supporting ● Additional

Content

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

○ **K.G.A.2** Correctly name shapes regardless of their orientations or overall size.

Math Practices and Processes

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify, name, and describe cubes.	• Students identify, name, and describe cubes using precise adjectives and nouns specific to cubes. • In order to support and optimize output, ELs will participate in MLR7: Compare and Connect.	• Students recognize personal strengths and areas for growth through thoughtful self-reflection.

Coherence

Previous	Now	Next
• Students sorted and classified objects (Unit 4). • Students named 2-dimensional shapes regardless of their orientation or size (Unit 5).	• Students recognize and name a cube.	• Students recognize and name other 3-dimensional objects (Unit 11). • Students identify attributes of 2-dimensional and 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students recognize characteristics of a cube, including that a cube has 6 faces and each face is a same-size square.	• Students build proficiency in recognizing cubes regardless of color, size, or position. They identify cubes among a group of non-cube objects.	• Students begin to apply their understanding of 3-dimensional shapes to real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 11-3

Spheres

Learning Targets

- I can identify and name a sphere.
- I can describe a sphere.

Standards ◆ Major ▲ Supporting ● Additional

Content

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

○ **K.G.A.2** Correctly name shapes regardless of their orientations or overall size.

Math Practices and Processes

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify, name, and describe spheres.	• Students identify, name, and describe spheres using precise adjectives and nouns specific to spheres. • In order to support to optimize output, ELs will participate MLR2: Collect and Display.	• Students exchange ideas for mathematical problem-solving with a peer, listening attentively and providing thoughtful and constructive feedback.

Coherence

Previous	Now	Next
• Students named 2-dimensional shapes regardless of their orientation or size (Unit 5). • Students recognized and named cubes (Unit 11).	• Students recognize and name a sphere.	• Students recognize and name cylinders and cones (Unit 11). • Students identify attributes of 2-dimensional and 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students recognize that a sphere has a rounded surface, no faces, and can roll.	• Students build proficiency in recognizing spheres regardless of color, size, or position. They differentiate between cubes and spheres and other shapes that are not spheres.	• Students begin to apply their understanding of 3-dimensional shapes to real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 11-4

Cylinders

Learning Targets

- I can identify and name a cylinder.
- I can describe a cylinder.

Standards ◆ Major ▲ Supporting ● Additional

Content

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

○ **K.G.A.2** Correctly name shapes regardless of their orientations or overall size.

Math Practices and Processes

MPP Look for and express regularity in repeated reasoning.

Focus

Content Objective	Language Objectives	SEL Objective
• Students identify, name, and describe cylinders.	• Students identify, name, and describe cylinders using precise adjectives and nouns specific to cylinders. • To optimize output, ELs will participate in MLR1: Stronger and Clearer Each Time.	• Students set a focused mathematical goal and make a plan for achieving that goal.

Coherence

Previous	Now	Next
• Students named 2-dimensional shapes regardless of their orientation or size (Unit 5). • Students recognized and named spheres and cubes (Unit 11).	• Students recognize and name a cylinder.	• Students recognize and name cones (Unit 11). • Students recognize that cones and cylinders can be joined to form new figures (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students begin to recognize that a cylinder has two circular bases and a curved surface. They see that a cylinder can be any size or color as long as it maintains its properties.	• Students build proficiency in recognizing cylinders regardless of color, size, or position. They can identify a cylinder among cubes, spheres, and other shapes that are not cylinders.	• Students begin to apply their understanding of cylinders in real-world contexts. *Application is not a targeted element of rigor for this standard.*

LESSON 11-5

Cones

Learning Targets

- I can identify and name a cone.
- I can describe a cone.

Standards ◆ Major ▲ Supporting ● Additional

Content

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

○ **K.G.A.2** Correctly name shapes regardless of their orientations or overall size.

Math Practices and Processes

MPP Look for and express regularity in repeated reasoning.

Focus

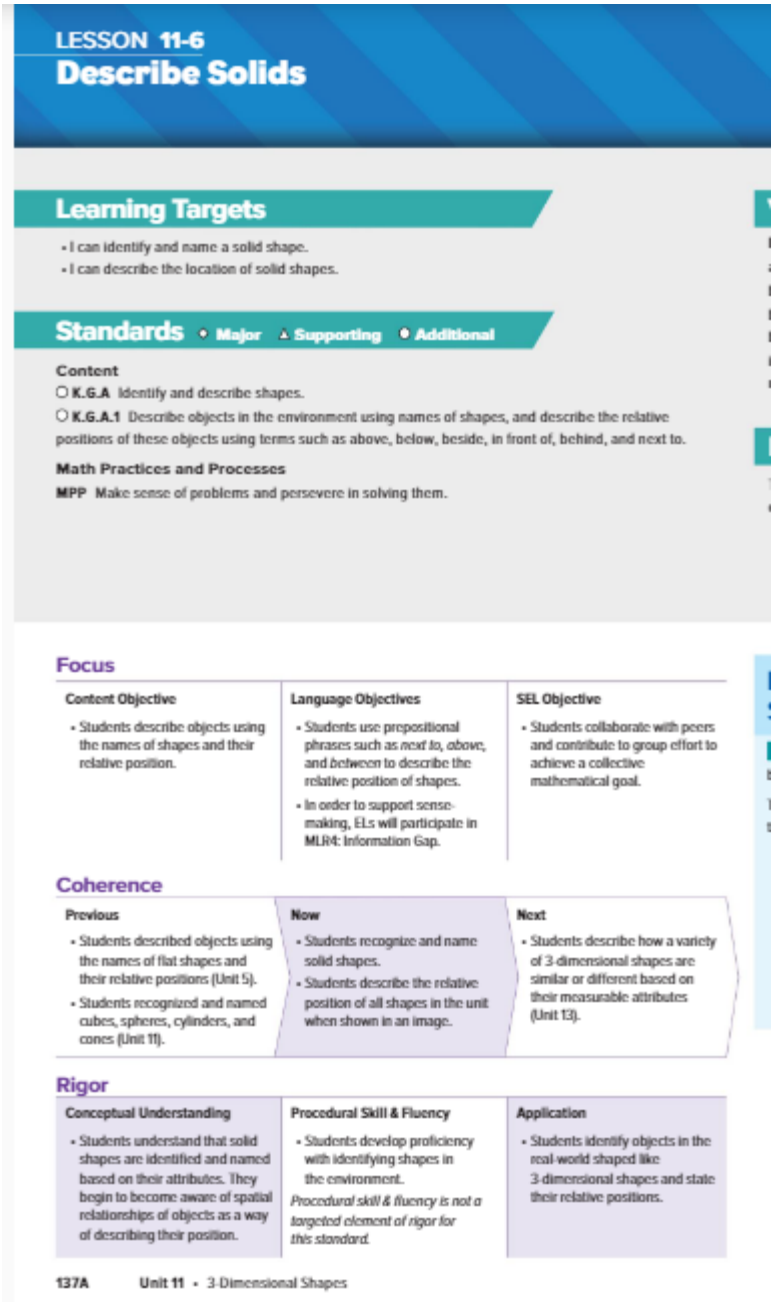
Content Objective	Language Objectives	SEL Objective
• Students identify, name, and describe cones.	• Students identify, name, and describe cones using precise adjectives and nouns specific to cones. • In order to support and optimize output, ELs will participate in MLR2: Collect and Display.	• Students recognize and work to understand the emotions of others and practice empathetic responses.

Coherence

Previous	Now	Next
• Students named 2-dimensional shapes regardless of their orientation or size (Unit 5). • Students recognized and named cubes, spheres, and cylinders (Unit 11).	• Students recognize and name a cone.	• Students describe objects in the environment using the names of shapes and describe the relative positions of objects (Unit 11). • Students study the attributes of 2-dimensional and 3-dimensional shapes (Grade 1).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students begin to recognize that a cone is a 3-dimensional shape that has one curved surface, a circular base, and one apex. A cone can be any size or color or in any position as long as it maintains its unique properties.	• Students build proficiency in recognizing cones regardless of color, size, or position. They can identify a cone among cylinders, cubes, and spheres.	• Students will informally apply their understanding of cones to real-world contexts. *Application is not a targeted element of rigor for this standard.*



LESSON 11-6

Describe Solids

Learning Targets

- I can identify and name a solid shape.
- I can describe the location of solid shapes.

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 Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objectives	SEL Objective
• Students describe objects using the names of shapes and their relative position.	• Students use prepositional phrases such as *next to*, *above*, and *between* to describe the relative position of shapes. • In order to support sense-making, ELs will participate in MLR4: Information Gap.	• Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.

Coherence

Previous	Now	Next
• Students described objects using the names of flat shapes and their relative positions (Unit 5). • Students recognized and named cubes, spheres, cylinders, and cones (Unit 11).	• Students recognize and name solid shapes. • Students describe the relative position of all shapes in the unit when shown in an image.	• Students describe how a variety of 3-dimensional shapes are similar or different based on their measurable attributes (Unit 13).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
• Students understand that solid shapes are identified and named based on their attributes. They begin to become aware of spatial relationships of objects as a way of describing their position.	• Students develop proficiency with identifying shapes in the environment. *Procedural skill & fluency is not a targeted element of rigor for this standard.*	• Students identify objects in the real-world shaped like 3-dimensional shapes and state their relative positions.

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	Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
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.A.2	Correctly name shapes regardless of their orientations or overall size.
MA.K.G.A.3	Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).