

Unit 4: Reason with Shapes and their Attributes

Content Area: **Mathematics**
Course(s):
Time Period: **Generic Time Period**
Length: **6 weeks**
Status: **Published**

Standards

MA.1.1.OA.A.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
MA.1.1.G.A.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.
LA.1.RI.1.1	Ask and answer questions about key details in a text.
LA.1.RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
MA.1.1.NBT.A.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
LA.1.SL.1.2	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
LA.1.SL.1.3	Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
LA.1.SL.1.4	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
TECH.8.2.2.B.CS1	The cultural, social, economic and political effects of technology.
MA.1.1.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.
LA.1.SL.1.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
LA.1.SL.1.6	Produce complete sentences when appropriate to task and situation.
MA.1.1.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.
LA.1.SL.1.1.A	Follow agreed-upon norms for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
LA.1.SL.1.1.B	Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
LA.1.SL.1.1.C	Ask questions to clear up any confusion about the topics and texts under discussion.
MA.1.1.NBT.C.4	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models (e.g., base ten blocks) or drawings and strategies based on place value, properties of

operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

MA.1.1.OA.C.6

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

TECH.8.2.2.B.1

Identify how technology impacts or improves life

Learning Objectives

Chapter 11 Learning Objective: SWBAT identify and describe three-dimensional shapes

Lesson 11.1 Learning Objective: SWBAT identify and describe three dimensional shapes

Lesson 11.2 Learning Objective: SWBAT compose a new shape by combining three dimensional shapes

Lesson 11.3 Learning Objective: SWBAT use composite three dimensional shapes to build new shapes

Lesson 11.4 Learning Objective: SWBAT identify three-dimensional shapes used to build a composite shape using the strategy act it out

Lesson 11.5 Learning Objective: SWBAT identify two-dimensional shapes on three dimensional shapes

Chapter 12 Learning Objective: SWBAT sort and describe two-dimensional shapes

Lesson 12.1 Learning Objective: SWBAT use defining attributes to sort shapes

Lesson 12.2 Learning Objective: SWBAT describe attributes of two dimensional shapes

Lesson 12.3 Learning Objective: SWBAT use objects to compose new two-dimensional shapes

Lesson 12.4 Learning Objective: SWBAT compose a new shape by combining two-dimensional shapes

Lesson 12.5 Learning Objective: SWBAT make new shapes from composite two-dimensional shapes using the strategy act it out

Lesson 12.6 Learning Objective: SWBAT decompose combined shapes into shapes

Lesson 12.7 Learning Objective: SWBAT decompose two-dimensional shapes into parts

Lesson 12.8 Learning Objective: SWBAT identify equal and unequal parts in two-dimensional shapes

Lesson 12.9 Learning Objective: SWBAT partition circle and rectangles into two equal shares

Lesson 12.10 Learning Objective: SWBAT partition circle and rectangles into four equal shares

Essential Questions

Chapter 11 Essential Question: How do you identify and describe three-dimensional shapes?

Lesson 11.1 Essential Question: How can you identify and describe three-dimensional shapes?

Lesson 11.2 Essential Question: How can you combine three-dimensional shapes to make new shapes?

Lesson 11.3 Essential Question: How can you use a combined shape to build a new shape?

Lesson 11.4 Essential Question: How can acting it out help you take apart combined shapes?

Lesson 11.5 Essential Question: What two-dimensional shapes do you see on the flat surfaces of three dimensional shapes?

Chapter 12 Essential Question: How do you sort and describe two-dimensional shapes?

Lesson 12.1 Essential Question: How can you use attributes to classify and sort two-dimensional shapes?

Lesson 12.2 Essential Question: What attributes can you use to describe two-dimensional shapes?

Lesson 12.3 Essential Question: How can you put two-dimensional shapes together to make new two-dimensional shapes?

Lesson 12.4 Essential Question: How can you combine two-dimensional shapes to make new shapes?

Lesson 12.5 Essential Question: How can acting out help you make new shapes from combined shapes?

Lesson 12.6 Essential Question: How can you find shapes in other shapes?

Lesson 12.7 Essential Question: How can you take apart two-dimensional shapes?

Lesson 12.8 Essential Question: How can you identify equal and unequal parts in two-dimensional shapes?

Lesson 12.9 Essential Question: How can a shape be separated into two equal shapes?

Lesson 12.10 Essential Question: How can a shape be separated into four equal shapes?

Materials

Print Resources

Student Edition Chapter 11

Student Edition Chapter 12

Chapter 11 Resources (including reteach and enrich)

Chapter 12 Resources (including reteach and enrich)

Grab and Go Center Kit

Practice and Homework in Student Edition (lesson checks and spiral reviews)

3-D shape models, vocabulary cards, 2-D shape models

Math Boards

Technology/ Digital Resources:

-iStudent Edition

-eTeacher Edition

- Interactive Student Edition

-Personal Math Trainer

-Math on the Spot Videos

-HMH Mega Math

-Digital Management System

-Animated Math Models

-iTools

-multimedia eGlossary

- digital assessments

- professional development videos

Achieve the Core:

<http://achievethecore.org/page/2853/go-math-k-5-guidance-documents>

Activities

Vocabulary Reader: On the Move

Project: My Shape Coloring Book

Chapter 11 Activities

Lesson 11.1 hands on- three dimensional shapes (vocabulary- cone, cube, curved surface, cylinder, flat surface, rectangular prism, sphere)

Lesson 11.2 hands on- combine three dimensional shapes

Lesson 11.3 hands on- make new three dimensional shapes

Lesson 11.4 problem solving- take apart three dimensional shapes

Lesson 11.5 hands on- two-dimensional shapes on three dimensional shapes

Chapter 12 Activities

Lesson 12.1 sort two-dimensional shapes (vocabulary- circles, rectangles, sides, square, triangles, vertices)

Lesson 12.2 hands on- describe two-dimensional shapes (vocabulary- hexagon, trapezoid)

Lesson 12.3 hands on- combine two dimensional shapes

Lesson 12.4 combine more shapes

Lesson 12.5 problem solving- make new two dimensional shapes

Lesson 12.6 find shapes in other shapes

Lesson 12.7 take apart two-dimensional shapes

Lesson 12.8 equal and unequal parts (vocabulary- equal parts, equal shares, unequal parts, unequal shares)

Lesson 12.9 halves (vocabulary- half of, halves)

Lesson 12.10 fourths (vocabulary- fourth of, fourths, quarter of, quarters)

Other Activities:

[1.G.A.1 All vs. Only some](#)

[1.G.A.1 3-D Shape Sort](#)

[1.G.A.2 Make Your Own Puzzle](#)

[1.G.A.2 Overlapping Rectangles](#)

[1.G.A.3 Equal Shares](#)

[1.OA.A.1 Twenty Tickets](#)

[1.NBT.A.1 Where Do I Go?](#)

Assessment

MAP Assessment

-Show What You Know

-On Your Own Activities

-ThinkSmarter

-Math Journals

- Response to Essential Questions
- Practice and Homework Activities
- Diagnostic Interview Tasks
- Digital Personal Math Trainer
- Lesson Quick Checks
- Mid-Point Chapter Checkpoints
- Chapter Reviews
- Chapter Tests
- Performance Assessment Tasks

Fact Fluency

- Games (Student Edition)
- Fluency Standard Lessons (Student Edition)
- Fluency Builder(Teacher Edition)
- Strategies and Practice for Skills and Facts Fluency- Primary, GK-3
- Teacher Resource Book
- HMH Mega Math
- Personal Math Trainer: Standards Quizzes
- Animated Math Models
- Fastt Math
- Flash Cards
- Mad Minutes
- Xtra Math

Accomodations and Modifications

Materials and Resources that provide opportunities to accommodate and modify include:

*Personal Math Trainer (adaptive assessment and intervention system)

*Interactive Student Edition

*Leveled Quizzes, Tests, and Performance Tasks

*Grab & Go Differentiated Centers

*Intensive Intervention Resource

*Strategic Intervention Resource

*Reteach Activities

*RTI Tiered Resources and Activities

*Math on the Spot Videos

*Extra Math/ Fastt Math

Others/ Notes
