Unit 5 (IReady) Shapes and Arrays (Partitioning and Tiling Shapes, Arrays, Evens and Odds)

Content Area: **Mathematics**
Course(s): **Mathematics 2**
Time Period: **May**
Length: **29 Instructional Days**
Status: **Published**

Unit Overview

In unit 5, students will learn to:

- Recognize and draw different shapes.
- Break up a rectangle into squares.
- Divide shapes into equal parts.
- Find the total number of squares used to tile a rectangle by counting them.
- Use addition to find the total number of objects in an array.
- Find even and odd numbers.

Priority Standards

2.G.A	Reason with shapes and their attributes

Learning Targets

- I can describe the shares using words halves, thirds, half of, a third of, etc.
- I can describe the whole as two halves, three thirds, four fourths.
- I can determine whether a group of objects (up to 20) has an odd or even number of members.
- I can identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- I can partition a rectangle into rows and columns of same size squares and count to find the total number of them.
- I can partition circles and rectangles into two, three, or four equal shares.
- I can recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.
- I can recognize that equal shares of identical wholes need not have the same shape.
- I can use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns.
- I can write an equation to express an even number as a sum of two equal addends.
- I can write an equation to express the total sum of equal addends.

Essential Questions

- How can I make arrays using rows and columns?
- How can I use what I know about addition and skip-counting to find the number of objects in an array?
- How can I use what I know about dividing a shape into equal parts to show halves, thirds, and fourths?
- How can knowing the number of sides and angles a shape has help me identify the shape?

Materials and Resources

- Additional Math Journal
- Array charts
- Base-10 blocks
- Data Math Games
- Fraction tiles
- Geoboards
- Non-standard units of measurement
- Ready Math Program

Unit Assessments (Required)

- Lesson Quizzes
- Mid-Unit Assessment
- My Learning Path weekly progress
- Unit Assessment

Learning Plan (Skills and Activities)

IReady Unit 5 Shapes and Arrays

(Partitioning and Tiling Shapes, Arrays, Evens and Odds)

Time Frame	Lesson	Standard(s)	Target
IReady Unit 5 (About 23 Days)	Lesson 28 (6 Days) Recognize and Draw Shapes	Standard: 2.G.A. Reason with shapes and their attributes	Target: I can recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.

		I can identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
		Target: I can partition circles and rectangles into two, three, or four equal shares.
Lesson 29 (5 days) Understand Partitioning Shapes into Halves, Thirds, and Fourths	Standard: 2.G.A. Reason with shapes and their attributes	I can describe the shares using words halves, thirds, half of, a third of, etc. I can describe the whole as two halves, three thirds, four fourths. I can recognize that equal shares of identical wholes need not have the same shape.
Lesson 30 (5 days) Partition Rectangles	Standard: 2.G.A. Reason with shapes and their attributes	Target: I can partition a rectangle into rows and columns of same size squares and count to find the total number of them.
Lesson 31 (5 days) Add Using Arrays	Standard: 2.G.A. Reason with shapes and their attributes	Target: I can use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. I can write an equation to express the total sum of equal addends.
Lesson 32 (5 Days)	Standard:	Target:

Even and Odd Numbers	2.G.A. Reason with shapes and their attributes	I can determine whether a group of objects (up to 20) has an odd or even number of members. I can write an equation to express an even number as a sum of two equal addends.

Strategies for Multilingual Learners

- Communicating High Expectations for Each Student to Close the Achievement Gap
- Establishing & Maintaining Effective Relationships in a Student Centered Classroom
- Helping Students Engage in Cognitively Complex Tasks
- Helping Students Examine their Reasoning
- Helping Students Practice Strategies, Skills, & Processes
- Helping Students Process New Content
- Helping Students Revise Knowledge
- Identifying Critical Content from the Standards
- Organizing Students to Interact with Contact
- Previewing New Content
- Providing Feedback & Celebrating Success
- Reviewing Content
- Using Engagement Strategies
- Using Formative Assessment to Track Progress
- Using Questions to Help Students Elaborate on Content

Strategies for Students in Need of Intervention

- Provide a list of keywords in word problems. For example: "In all, altogether means addition"
- Small Group Instruction based on strategy
- Small group instruction for Fact Fluency
- Small group instruction for word problems
- Extended pacing of lessons

- Hands on manipulatives
- Provide grid paper
- Reduce the amount of problems
- Small Group Instruction to extend concept for Enrichment
- Use of a number line
- Use of approaching level materials/assignments
- Use of hundreds chart
- Use of visual aids for vocabulary building

Strategies for Enrichment

- Small Group Instruction to extend concept for Enrichment

Technology Integration

Website Name	www.brainden.com
Math playground	www.adaptedmind.com
Brain Den	www.youtube.com
Fun brain	www.mathgametime.com
Reflex Math	www.reflexmath.com

- . 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose.
- 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

21st Century Skills or Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
9.4.2.IML.1	Identify a simple search term to find information in a search engine or digital resource.
9.4.2.IML.2	Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).
9.4.2.IML.4	Compare and contrast the way information is shared in a variety of contexts (e.g., social, academic, athletic) (e.g., 2.2.2.MSC.5, RL.2.9).

9.4.2.TL.3	Enter information into a spreadsheet and sort the information.

Interdisciplinary Connections

Connections to Reading: Apply comprehension startegies to solve word problems. Incorporate literature relating to the math skill in lesson, such as, books on time.

Connections to Writing: Students write descriptions of composite shapes they have made.

Connections to Science: Incoporate time in experiments/investigations.