

# 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

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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

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MATH.2.G.A Reason with shapes and their attributes

## Learning Targets

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- 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

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- 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

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- 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)

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

## Learning Plan (Skills and Activities)

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### IReady Unit 5 Shapes and Arrays

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

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

Days)

and their attributes

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.

Standard:

Lesson 29 (5 days)

I can describe the shares using words halves, thirds, half of, a third of, etc.

2.G.A. Reason with shapes and their attributes

Understand Partitioning Shapes into Halves, Thirds, and Fourths

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.

Standard:

Lesson 30 (5 days)

Target:

2.G.A. Reason with shapes and their attributes

Partition Rectangles

I can partition a rectangle into rows and columns of same size squares and count to find the total number of them.

Target:

Standard:

Lesson 31 (5 days)

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.

2.G.A. Reason with shapes and their attributes

Add Using Arrays

I can write an equation to express the total sum of equal addends.

	Target:
	I can determine whether a group of objects (up to 20) has an odd or even number of members.
Lesson 32 (5 Days)	Standard:
	2.G.A. Reason with shapes and their attributes
Even and Odd Numbers	I can write an equation to express an even number as a sum of two equal addends.

## **Strategies for Multilingual Learners**

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- 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**

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- 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

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- Small Group Instruction to extend concept for Enrichment

## Technology Integration

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Website Name	
Math playground	<a href="http://www.brainden.com">www.brainden.com</a>
Brain Den	<a href="http://www.adaptedmind.com">www.adaptedmind.com</a>
Fun brain	<a href="http://www.youtube.com">www.youtube.com</a>
Reflex Math	<a href="http://www.mathgametime.com">www.mathgametime.com</a>
	<a href="http://www.reflexmath.com">www.reflexmath.com</a>

- . 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

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- 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.

WRK.9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
TECH.9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
TECH.9.4.2.TL.3	Enter information into a spreadsheet and sort the information.
TECH.9.4.2.IML.1	Identify a simple search term to find information in a search engine or digital resource.
TECH.9.4.2.IML.2	Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

## **Interdisciplinary Connections**

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**Connections to Reading:** Apply comprehension strategies 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:** Incorporate time in experiments/investigations.