

Eureka Math

2nd Grade Module 6 Lesson 20

At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

Directions for customizing presentations are available on the next slide.



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Reflecting your Teaching Style and Learning Needs of Your Students

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- The view now looks like Screen B.
- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
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- It is now editable & housed in MY DRIVE.

Screen A

ReadyGEN™ in Action

3rd Grade
Unit 3, Module A
Lesson 1

“pop-out”

Screen B

Gr3(2) U3MAL1 Sample Lesson.pptx

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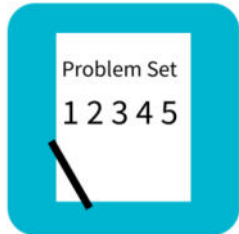
Read, Draw, Write



Learning Target



Personal White Board



Problem Set



Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



Small Group Time



Materials Needed:

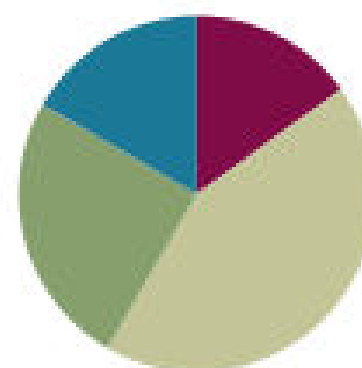
- Core Fluency Practice Sets (Lesson 12)
- Premade even and odd poster
- 25 tiles per student
- Personal white board

Lesson 20

Objective: Use rectangular arrays to investigate odd and even numbers.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Concept Development	(26 minutes)
■ Application Problem	(15 minutes)
■ Student Debrief	(10 minutes)
Total Time	(60 minutes)



Fluency Practice (9 minutes)

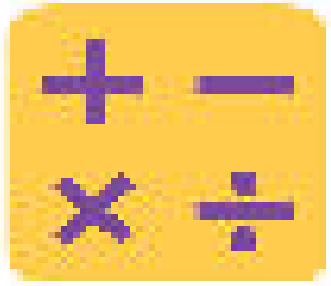
- Skip-Counting by Twos **2.OA.3** (4 minutes)
- Grade 2 Core Fluency Practice Sets **2.OA.2** (5 minutes)

Skip-Counting by Twos (4 minutes)

Note: This fluency activity is foundational to understanding the relationship between skip-counting and



- I can use rectangular arrays to investigate odd and even numbers.



Skip-Counting by Twos

On my signal count by ones from 0 to 20 in a whisper. Ready?

Did anyone notice what I was doing while you were counting?

Now let's count only when we knock. Ready?

Continue this routine up to 20 and back down again.



Core Fluency Practice Sets

A STORY OF UNITS

Lesson 1 Core Fluency Practice Set A 2•6

A STORY OF UNITS

Lesson 1 Core Fluency Practice Set B 2•6

A STORY OF UNITS

Lesson 1 Core Fluency Practice Set C 2•6

A STORY OF UNITS

Lesson 1 Core Fluency Practice Set D 2•6

Name _____

Date _____

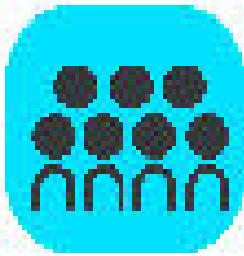
1.

$19 - 9 =$

21.

$16 - 7 =$

Concept Development



Partner A, make 2 rows of 3.

Partner B, make 2 rows of 4.

How many tiles does partner A have?

Is 6 even or odd?

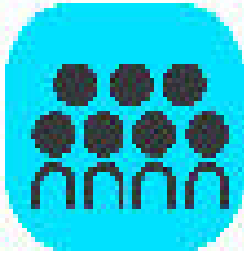
How many tiles does partner B have?

Is 8 even or odd?

Partners, combine your two arrays that you made. How many do you have all together? Is that even or odd?



Concept Development



When we add an even number and an even number, do we get an even or odd number?

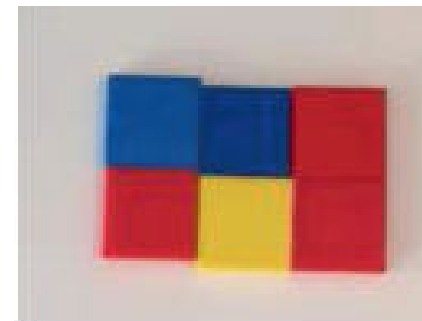
Even + Even =

Even + Odd =

Odd + Odd =

Now, let's see what happens when we add an even and an odd!

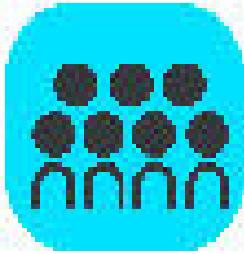
Partner A, make an array with 2 rows of 3. Partner B, make 2 rows of 3, and then add 1 tile on the top row on the right.



Is 6 even or odd?

Is 7 even or odd?

Concept Development



Now put your tiles together!

How many tiles do you have altogether?

Is that even or odd?

How do you know?

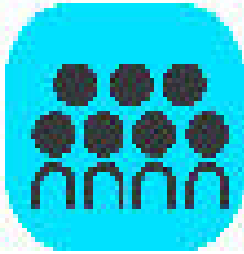


$$\text{Even} + \text{Even} = \boxed{\text{Even}}$$

$$\text{Even} + \text{Odd} = \boxed{\text{Odd}}$$

$$\text{Odd} + \text{Odd} = \boxed{\phantom{\text{Even}}}$$

Concept Development



Now, let's see what happens when we add an odd number to another odd number!

Partner A, make 2 rows of 3. Then add 1 tile to the top row on the right.



Partner B, make 2 rows of 4 on your board. Then add 1 tile to the bottom row on the left.

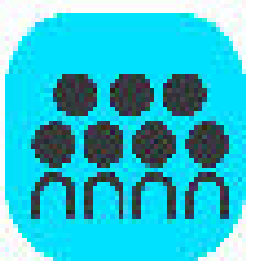


Is 7 even or odd?

Is 9 even or odd?

Now put them together! What do you have? Is that even or odd?

Concept Development



What do we get when we add an even and an even?

What do we get when we add an even and an odd?

Is 10 even or odd?

Is 12 even or odd?

What is $10+12$?

Is 22 even or odd?

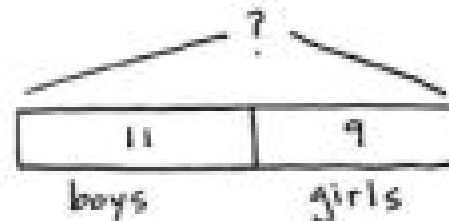
Repeat with $22+4$, $22+3$, $21+5$, $22+14$, $22+13$, $21+15$



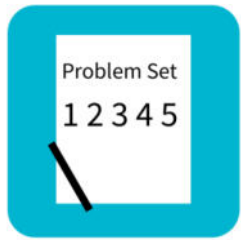
Application Problem

Mrs. Boxer has 11 boys and 9 girls at a Grade 2 party.

- Write the equation to show the total number of people.
- Are the addends even or odd?
- Mrs. Boxer wants to pair everyone up for a game. Does she have the right number of people for everyone to have a partner?



- $11 + 9 = 20$
- 11 - odd 9 - odd
- An odd number plus an odd number makes an even number, so yes, Mrs. Boxer has the right number to make partners.
 $10 + 10 = 20$ so there will be 10 sets of partners.



Problem Set

A STORY OF UNITS

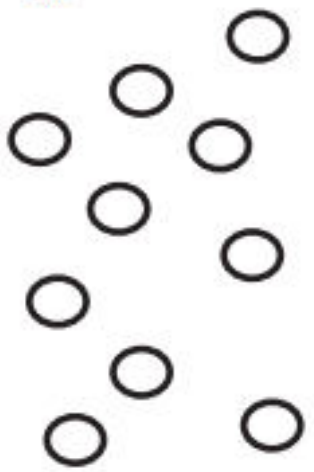
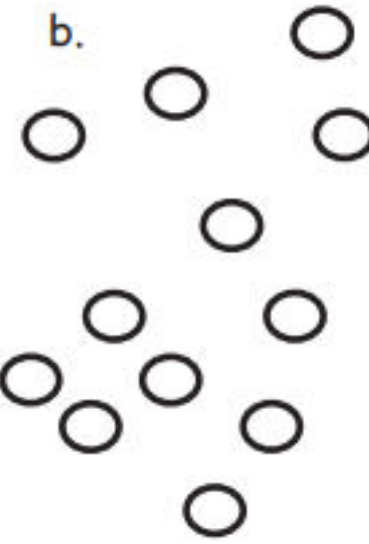
Lesson 20 Problem Set

2•6

Name _____

Date _____

1. Use the objects to create an array.

a. 	Array There are an even/odd (circle one) number of circles.	Redraw your picture with 1 <i>less</i> circle. There are an even/odd (circle one) number of circles.
b. 	Array There are an even/odd (circle one) number of circles.	Redraw your picture with 1 <i>more</i> circle. There are an even/odd (circle one) number of circles.



Debrief

For Problem 1(a), what is the difference between your two drawings? Can you make an array with 2 rows or columns for an odd number of objects? Can you group the circles differently and still make an array?

For Problem 1(b), must your array show 2 equal rows or columns for a number to be even? What about 4 rows of 3? Can you split that array into groups of 2?



Debrief

If you have rows of 3, is it true that the number must be odd? When will the number be even?

What have you learned about the total when adding different combinations of even and odd addends? How does this connect to the 1 more/1 less circle on the first page of the Problem Set?

Can you only build rectangular arrays for even numbers? (Think about 15.) How do you know?



Exit Ticket

A STORY OF UNITS

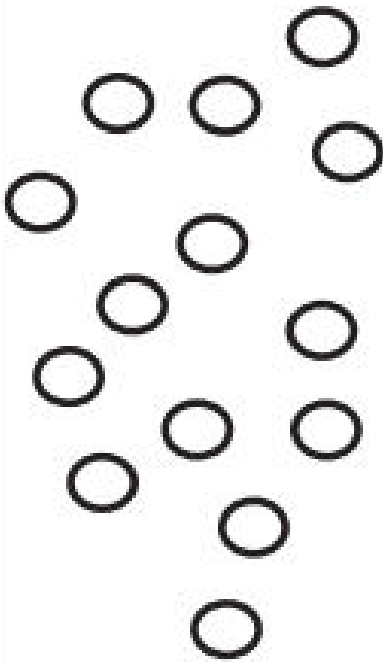
Lesson 20 Exit Ticket

2•6

Name _____

Date _____

Use the objects to create an array.

	Array There are an even/odd (circle one) number of circles.	Redraw your picture with 1 <i>less</i> circle. There are an even/odd (circle one) number of circles.
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