Eureka Math

2nd Grade
Module 6
Lesson 11

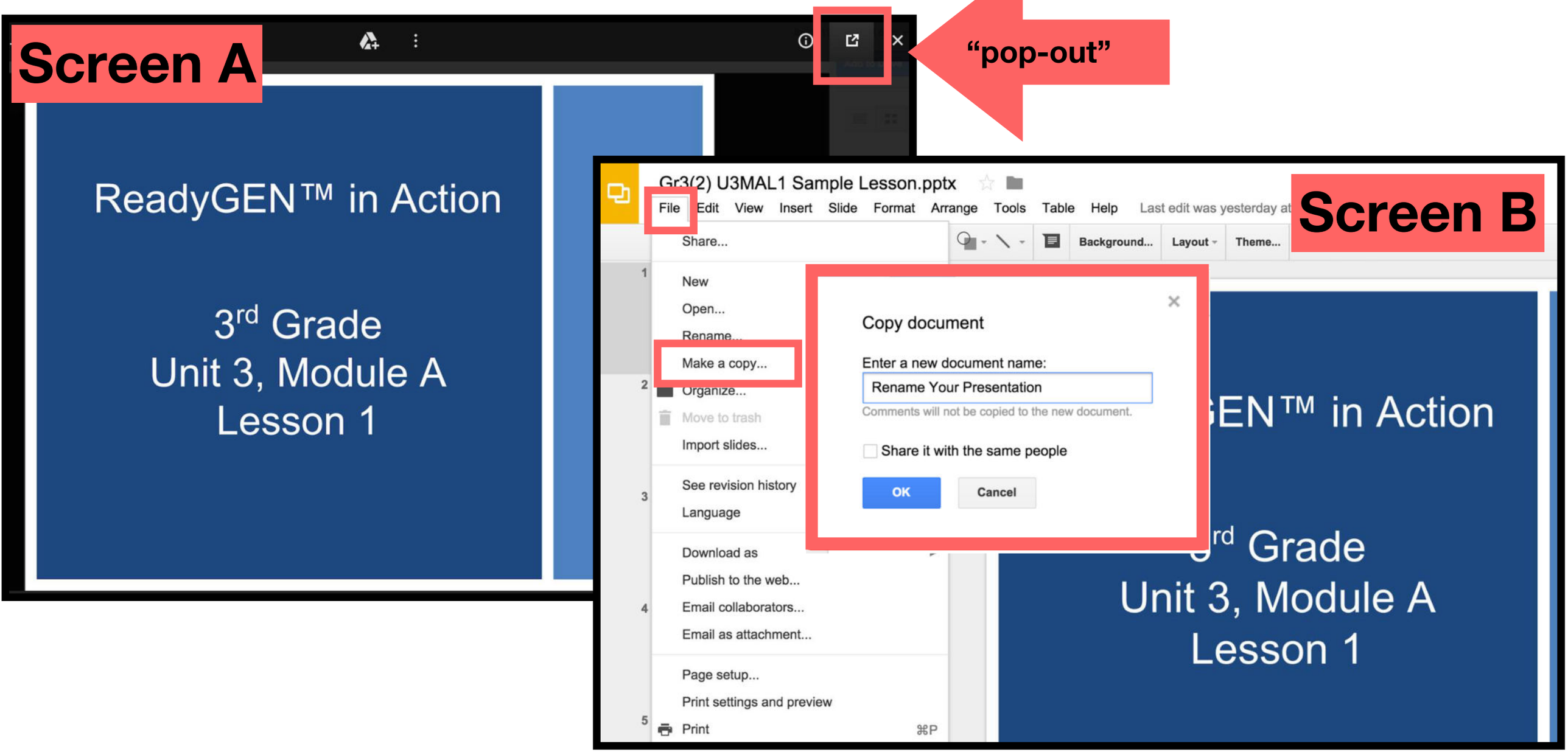
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

Directions for customizing presentations are available on the next slide.

Customize this Slideshow

Reflecting your Teaching Style and Learning Needs of Your Students

- ➢ When the Google Slides presentation is opened, it will look like Screen A.
- ➢ Click on the “pop-out” button in the upper right hand corner to change the view.
- ➢ The view now looks like Screen B.
- ➢ Within Google Slides (not Chrome), choose FILE.
- ➢ Choose MAKE A COPY and rename your presentation.
- ➢ Google Slides will open your renamed presentation.
- ➢ It is now editable & housed in MY DRIVE.



Icons

Read, Draw, Write

Learning Target

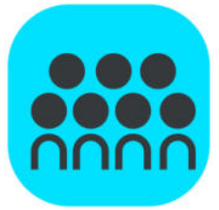
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

Small Group Time

Materials Needed:

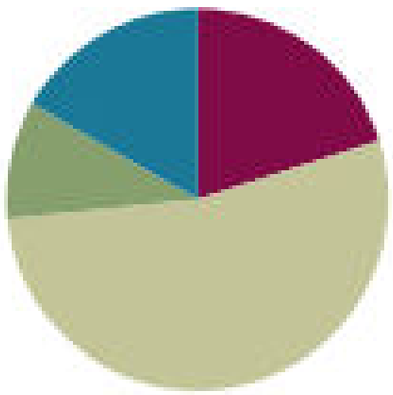
- Sprint
- (T) 5 red & 5 green tiles
- (S) 25 square tiles
- Personal whiteboards

Lesson 11

Objective: Use square tiles to compose a rectangle, and relate to the array model.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(6 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Use square tiles to compose a rectangle,
and relate to the array model.

Happy Counting by Tens
Crossing 100

Watch my fingers to know whether to count up or down. A closed hand means stop. (Show signals while explaining.)

Let’s count by **tens**, starting at 360. Ready?

Try it for 30 seconds with your partner, starting at 440. Partner B, you are the teacher today.

Sprint

A

Number Correct: _____

Subtraction Crossing Ten

1.	10 - 5 =	
2.	20 - 5 =	
3.	30 - 5 =	
4.	10 - 2 =	
5.	20 - 2 =	
6.	30 - 2 =	
7.	11 - 2 =	

23.	14 - 6 =	
24.	24 - 6 =	
25.	34 - 6 =	
26.	15 - 7 =	
27.	25 - 7 =	
28.	35 - 7 =	
29.	11 - 4 =	

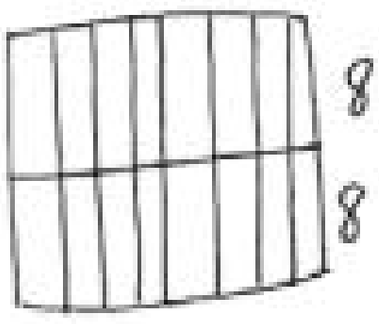
Application Problem

Ty bakes two pans of brownies. In the first pan, he cuts 2 rows of 8. In the second pan, he cuts 4 rows of 4.

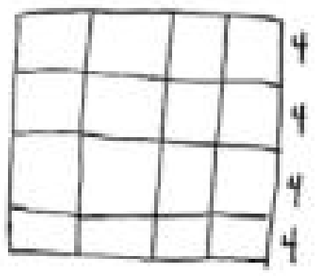
a. Draw a picture of Ty's brownie pans.

b. Write a repeated addition equation to show the total number of brownies in each pan.

c. How many brownies did Ty bake altogether? Write an equation and a statement to show your answer.



8 + 8 = 16



4 + 4 + 4 + 4 = 16

16 + 16

4 ^ 12

20 + 12 = 32

Ty made 32 brownies altogether.

Concept Development

Part 1- Compose rectangles from one row of tiles and write addition sentences to match.

How many rows do you see?

How many tiles are in the row?

Even with one row, this rectangle is an array. Who can tell me about the rows and columns of this array?

Turn & Talk- How can we rearrange these tiles to form a different rectangle?

Now how many rows do we see? How many columns?

What repeated addition sentences can represent this array?

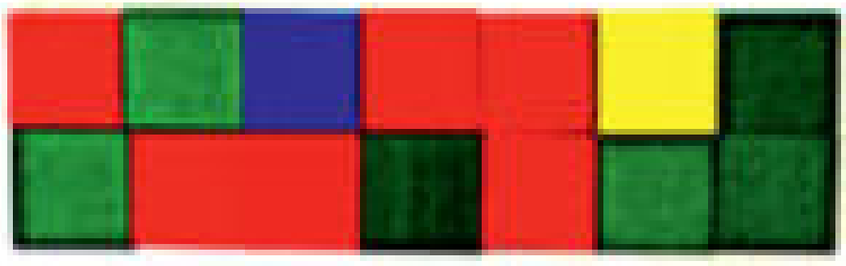
5 + 5 = 10 and 2 + 2 + 2 + 2 + 2 = 10

Concept Development

Part 1- Compose rectangles from one row of tiles and write addition sentences to match.

Make a row of 14 tiles of your personal whiteboard.

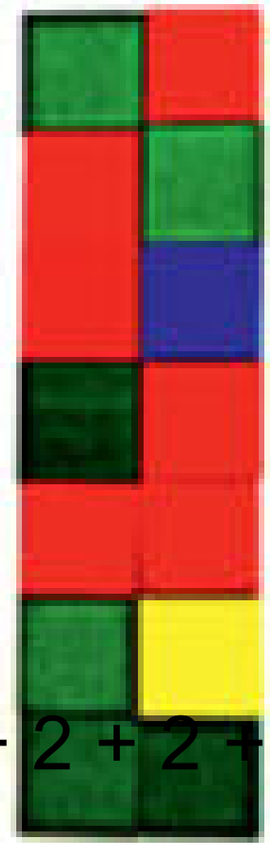
Now, rearrange the tiles another way.



What equations can you write to match these arrays?

7 + 7 = 14

2 = 14

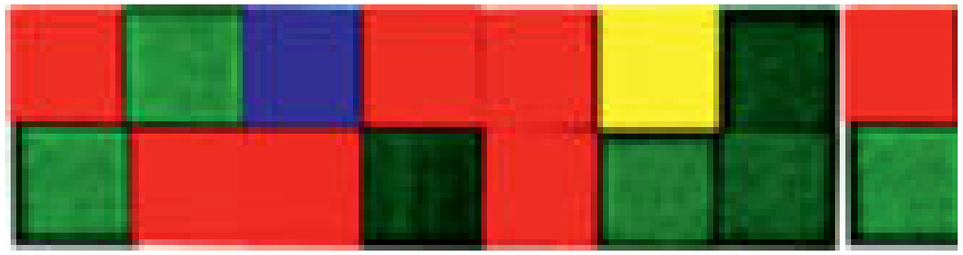


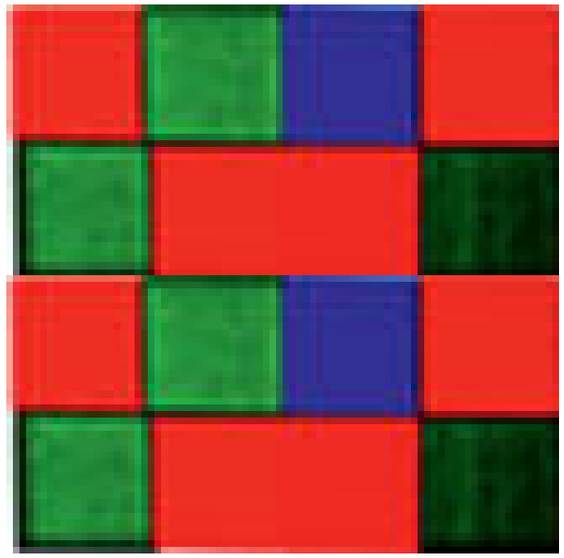
2 + 2 + 2 + 2 + 2 + 2 +

Concept Development

Part 2- Compose varied rectangles from a given number of tiles.

Is there another rectangle we can make using the **same** 16 tiles?





Count out **12** tiles.

Arrange them in a row.

With your partner, make two different rectangle arrays using 12 tiles each.

Write repeated addition sentences for each rectangle.

*How are the rectangles similar? How are they different?

Name _____ Date _____

Use your square tiles to construct the following arrays with no gaps or overlaps. Write a repeated addition equation to match each construction.

1. a. Place 8 square tiles in a row.

b. Construct an array with the 8 square tiles.

c. Write a repeated addition equation to match the new array.

_____

Debrief

Can we call the arrangement in problem 1 an array? How can you describe it in terms of both rows and columns?

For problem 1, how is knowing how to make equal groups helpful in constructing a rectangle with 8 tiles? Explain how your equation matches your array.

What strategy did you use in problem 2 to construct a rectangle with 12 tiles? How are your two rectangles different? How are they similar? How did your rows and columns change when you rearranged your tiles to create a new rectangle for problem 3?

Debrief

For problem 4, explain how you know that 3 + 3 = 2 + 2 + 2

You constructed two rectangles with 10 tiles for problem 5. Is it possible to do the same with 11 tiles?

Exit Ticket

Name _____ Date _____

a. Construct an array with 12 square tiles.

b. Write a repeated addition equation to match the array.

_____