Eureka Math

2nd Grade
Module 8
Lesson 10

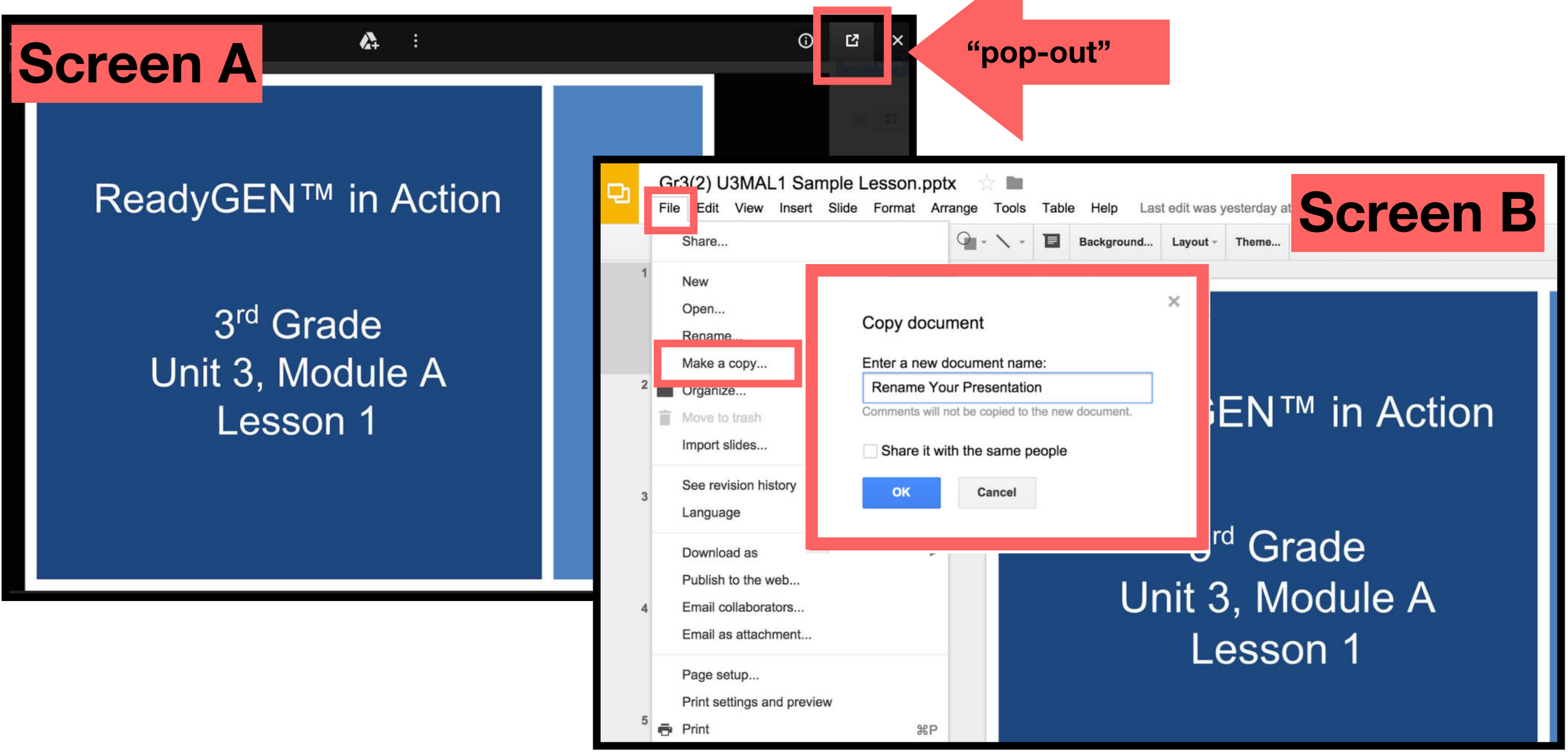
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

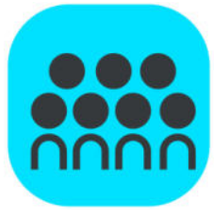
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

Small Group Time

Materials Needed:

Materials:
Fluency - Sprint: Addition patterns

Concept Development:
(T) 8 1/2 x 11 piece of paper, Cut and colored circle (Lesson 9 template 1)

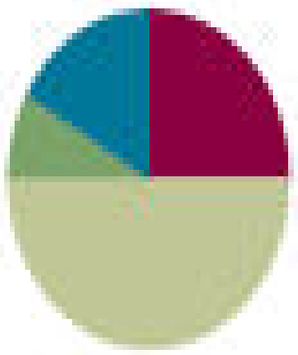
(S) 8 1/2 x 11 piece of paper, Rectangles and circles (template), whiteboard, scissors, crayons or colored pencils, Cut and colored circle (Lesson 9 template 1)

Lesson 10

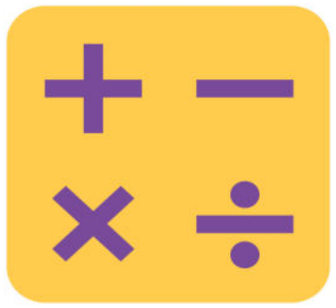
Objective: Partition circles and rectangles into equal parts, and describe those parts as halves, thirds, or fourths.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Application Problem	(5 minutes)
Concept Development	(30 minutes)
Student Debrief	(10 minutes)
Total Time	(60 minutes)



I can partition circles and rectangles into equal parts, and describe those parts as halves, thirds, or fourths.



Fluency

Rename for the Larger Unit

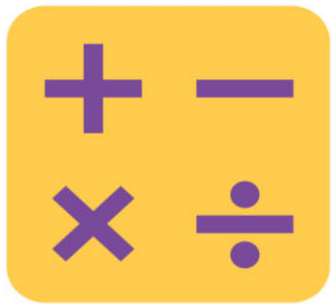
I’m going to tell you a number of ones. Tell me the largest units that can be made. Ready?

13 tens = ___hundred ___tens

26 tens 10 ones = ___hundreds ___tens

34 tens 10 ones = ___hundreds ___ten

56 tens = ___hundreds ___tens



Fluency

Rename for the Larger Unit

I’m going to tell you a number of ones. Tell me the largest units that can be made. Ready?

1 hundred 35 tens = ___hundred___ten ___ones

3 hundreds 44 tens = ___hundred___ten ___ones

7 hundreds 28 tens 10 ones = ___hundred___ten ___ones

5 hundreds 34 tens 13 ones ones = ___hundred___ten ___ones

Sprint

A

Number Correct: _____

Addition Patterns

1.	8 + 2 =	
2.	18 + 2 =	
3.	38 + 2 =	
4.	7 + 3 =	
5.	17 + 3 =	
6.	37 + 3 =	
7.	8 + 3 =	
8.	18 + 3 =	
9.	28 + 3 =	
10.	6 + 5 =	

23.	18 + 6 =	
24.	28 + 6 =	
25.	16 + 8 =	
26.	26 + 8 =	
27.	18 + 7 =	
28.	18 + 8 =	
29.	28 + 7 =	
30.	28 + 8 =	
31.	15 + 9 =	
32.	16 + 9 =	

Application Problem

Felix is passing out raffle tickets. He passes out 98 tickets and has 57 left. How many raffle tickets did he have to start?

Concept Development

Part 1: Making Thirds

Yesterday, we worked with halves. Today, let's take a look at thirds.

When something is divided into thirds, how many equal shares does it have?

Draw two lines in the top two rectangles to show two different ways to partition them into thirds.

Shade in 1 third of each rectangle. What do you notice?

Concept Development

Practice partitioning the rest of the rectangles into thirds.

Choose your rectangle that best shows thirds. Let's color each third and count as we go. Point to 1 third, and count with me. This is 1 third.

Erase your personal white boards. Now, use two vertical lines to partition the top rectangle into thirds. Then, draw one vertical line to cut the rectangle underneath it into halves. Color 1 third of the top rectangle and one half of the bottom rectangle.

Which part is larger?

Concept Development

Look at both rectangles as a whole. Which has more parts? Halves or thirds?

Thirds have more parts, but the parts are smaller. Think about that for a moment. Why do you think that is?

Let’s try that with circles.

Which is more, 1 half or 1 third? Why?

Concept Development

Part 2: Making Fourths

We already folded, colored, and labeled 1 half. Let's turn the circle over and make fourths, or quarters, on the other side. When something is divided into fourths, how many equal shares does it have?

Fold your circle to partition it into four equal parts. Make sure each part is equal in size. Fold so the ends of the first line come together at the edge.

Color and label 1 fourth of your circle.

Now, use your personal white boards to partition the circles on your template into fourths.
Tell your partner how you divided the circle into equal shares.

Concept Development

Choose the circle that shows the best fourths, and shade in 1 fourth.

Partition your rectangles into fourths, or quarters. There are a few different ways we can do this.

Concept Development

Part 3: Partitioning to Make Thirds and Fourths of a Sheet Cake and Pizza

We're going to use your personal white boards and the template to show equal shares. Let's pretend that the rectangles are sheet cakes and the circle is a pizza.

- It's easy to think about food when we talk about equal shares because there are so many foods we cut up to share with friends and family, like cakes, pizza, quesadillas, and candy bars!
- You're going to draw lines to cut the pizza and sheet cakes into halves, thirds, and fourths. Please show two different ways of partitioning when slicing the two sheet cakes. Then, you'll color your share.
- For example, if I say, "You get 3 fourths of the cake," show me two different ways to partition the rectangles, and color 3 fourths on each cake.

Concept Development

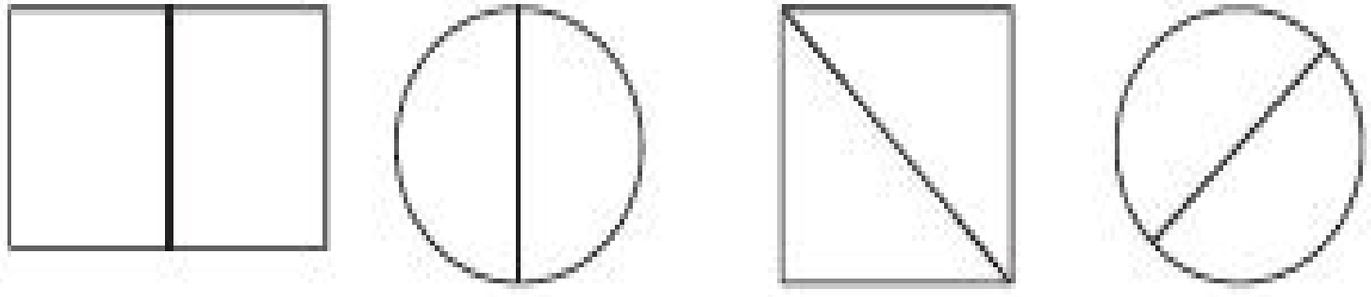
Now, listen to my story, and show me how each shape should be divided. Mary, Colleen, and Saffron share a pizza equally. Show how to slice the pizza, and label each share with their name.

Talk with your partner: What fraction of the pizza did the girls share in all?

What if Mary also eats Colleen's share of the pizza? How much has she eaten?

Name _____ Date _____

1. a. Do the shapes in Problem 1(a) show halves or thirds? _____



b. Draw 1 more line to partition each shape above into fourths.

Debrief

Review your solutions for the Problem Set

For Problem 1(a), how did you determine where to draw another line to make fourths?

For Problem 2, Jasmine looked at the shaded rectangles and exclaimed, “3 thirds equals 2 thirds plus 1 third!” Do you agree with her?Why?

For Problem 3, what is interesting about 2 fourths? Can you relate it to halves? When you shaded 3 fourths, what part was left unshaded? How about when you shaded 1 fourth?

Debrief

Review your solutions for the Problem Set

Look at Problems 4(e) and (h). How can 2 thirds be greater than 3 thirds?

How are Problems 4(a), (d), and (g) alike? How are they different? When will the fourths be exactly the same?

For Problem 5, what fraction of the pizza did Maria get? How do you know?

Exit Ticket

Name _____ Date _____

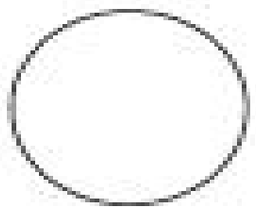
Partition and shade the following shapes as indicated. Each rectangle or circle is one whole.

1. 2 halves

2. 2 thirds

3. 1 third

4. 1 half



5. 2 fourths

6. 1 fourth