Eureka Math

2nd Grade
Module 2
Lesson 9

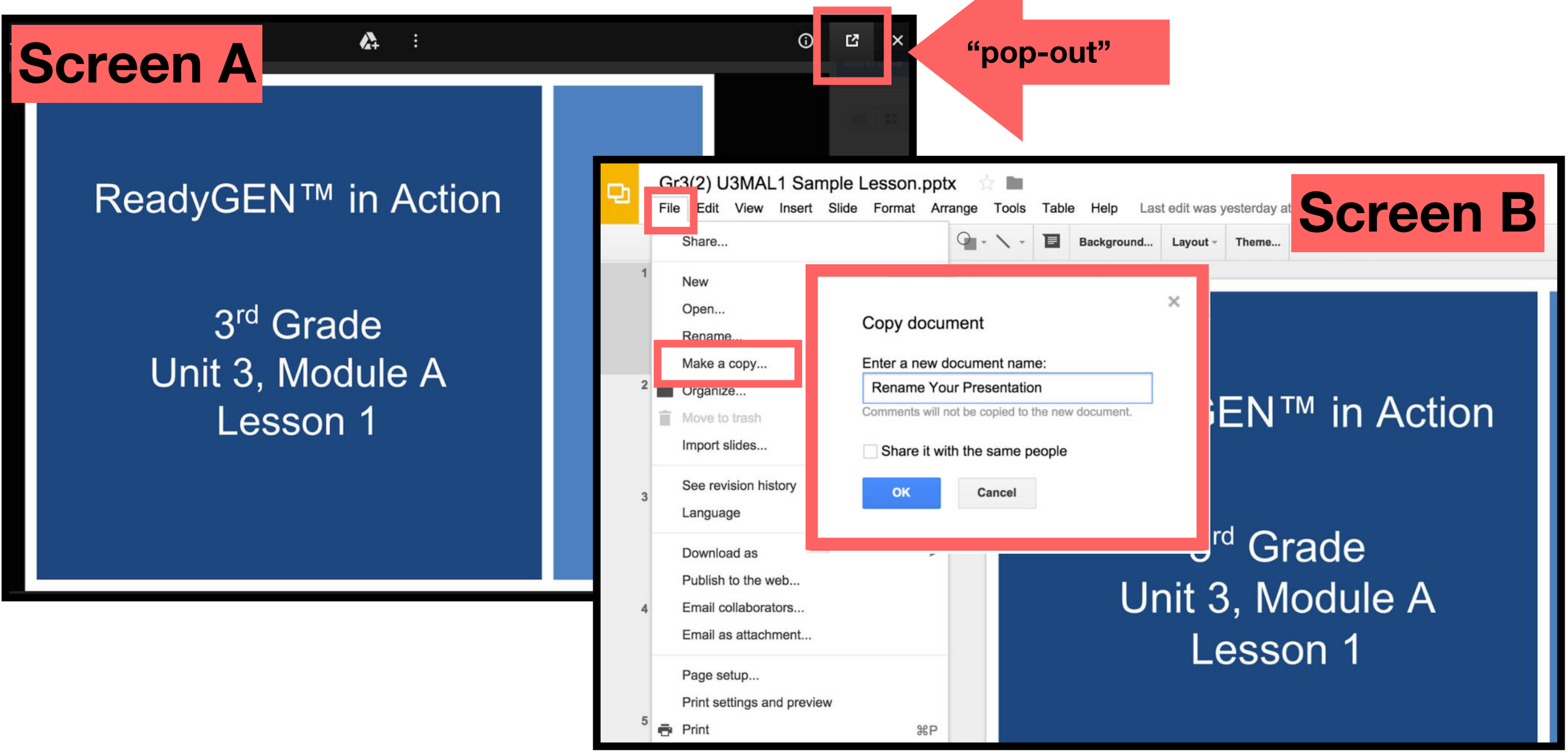
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

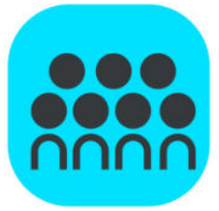
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

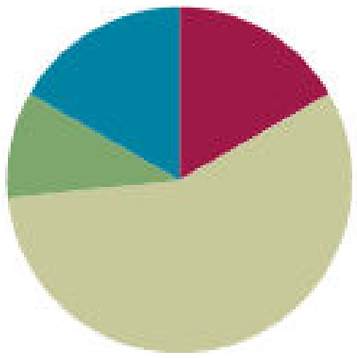
Small Group Time

Lesson 9

Objective: Measure lengths of string using measurement tools, and use tape diagrams to represent and compare lengths.

Suggested Lesson Structure

Fluency Practice	(10 minutes)
Application Problem	(6 minutes)
Concept Development	(34 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Materials Needed:

Fluency:

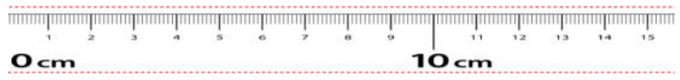
(S) Meter Strip (Lesson 6 Template)

Concept Development:

- (T) 2 lengths of string in two different colors (3 m and 2 m)
- (T) meter stick
- (T) masking tape
- (S) 1 meter strip
- (S) 50 cm piece of string
- Personal whiteboard

I can measure lengths of string using measurement tools, and use tape diagrams to represent and compare lengths.

Meter Strip Addition

Take out your meter strip. 

Put your finger on 0 to start. I'll say the whole measurement. Slide up to that number. Add 10 centimeters and tell me how many centimeters your finger is from 0.

Let's try one. Fingers at 0 centimeters! 30 centimeters.

Remember to add 10.

How far is your finger from 0?

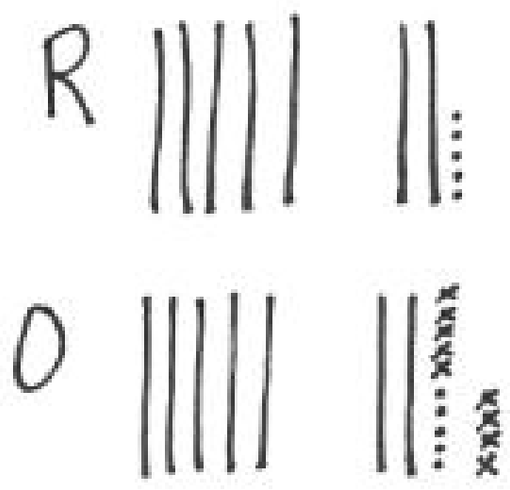
45 cm	**63 cm**	**76 cm**
51 cm	**87 cm**	**98 cm**

Happy Counting

Follow my hand as we Happy Count. Watch my thumb. Let's start counting at 10 centimeters, starting at 80 centimeters..

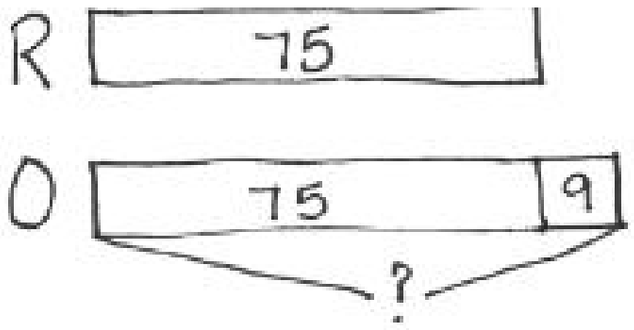
Application Problem

Richard's sunflower is 9 centimeters shorter than Oscar's. Richard's sunflower is 75 centimeters tall. How tall is Oscar's sunflower?



75 + 9 = 84
5 ^ 4

Oscar's sunflower is 84 centimeters tall.



75 + 9 = 84
5 ^ 4

75 + 5 = 80
80 + 4 = 84

Oscar's sunflower is 84 centimeters tall.

Concept Development

Make an estimate. How long is the zigzag path?

Make an estimate. How long is the squiggly path?

Which path do you think is longer?

Concept Development

I have some string here. How do you think this string could help me to check our estimates?

I'll use the one color string to measure the squiggly path and the other string to measure the zigzag path.

Now, I'll compare the lengths of the paths by measuring these strings. Because the strings are so long, let's tape them on the floor and see how long they are.

Concept Development

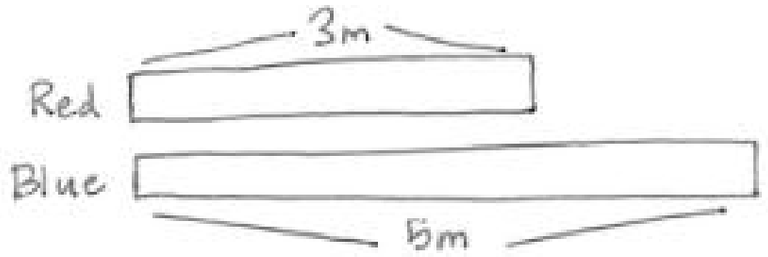
Use a benchmark to estimate the length of each string. Share your estimates with your neighbor.

What measurement tool could we use to check the estimates?

Yes, a meter tape or meter stick

Concept Development

I don’t have enough space on the board to tape these long strings. I’ll draw a picture



The longer ribbon is represented by a longer bar. The measurements of each ribbon is written near the bar.

What expression could you use to describe the total length of these strings?

3+5

Concept Development

What expression could I use to describe the difference in length between these two strings?

5-3

Let’s practice making a tape diagram.

Concept Development

What is the measurement around my wrist?

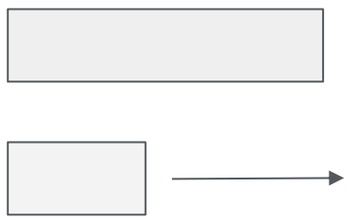
What is the measurement around my head?

Draw along with me as I draw the first bar on the board to represent the first measurement of my head and label it.

Right below that, draw the second bar to show my wrist measurement. Should it be longer or shorter?

Concept Development

Look at your diagram. Talk with your neighbor: What is the open space between the end of the first and second bars?



How can we find the difference between the two bars?

Problem Set

Name _____ Date _____

1. Complete the chart by first estimating the measurement around a classmate's body part and then finding the actual measurement with a meter strip.

Student Name	Body Part Measured	Estimated Measurement in Centimeters	Actual Measurement in Centimeters
	Neck		
	Wrist		
	Head		

a. Which was longer, your estimate or the actual measurement around your classmate's head? _____

Debrief

- What estimation strategies did you use for problem 1? How were they similar to or different from your partner's strategies
- Look at Problem 2 and 3. What steps did you take to draw an accurate tape diagram? How do your drawings compare to your partners?
- What do you think the math goal of this lesson was? What would be a good name for this lesson?

- How did you show your thinking today?

Exit Ticket

Name _____ Date _____

1. Use your string to measure the two paths. Write the length in centimeters.