Eureka Math

4th Grade
Module 3
Lesson 3

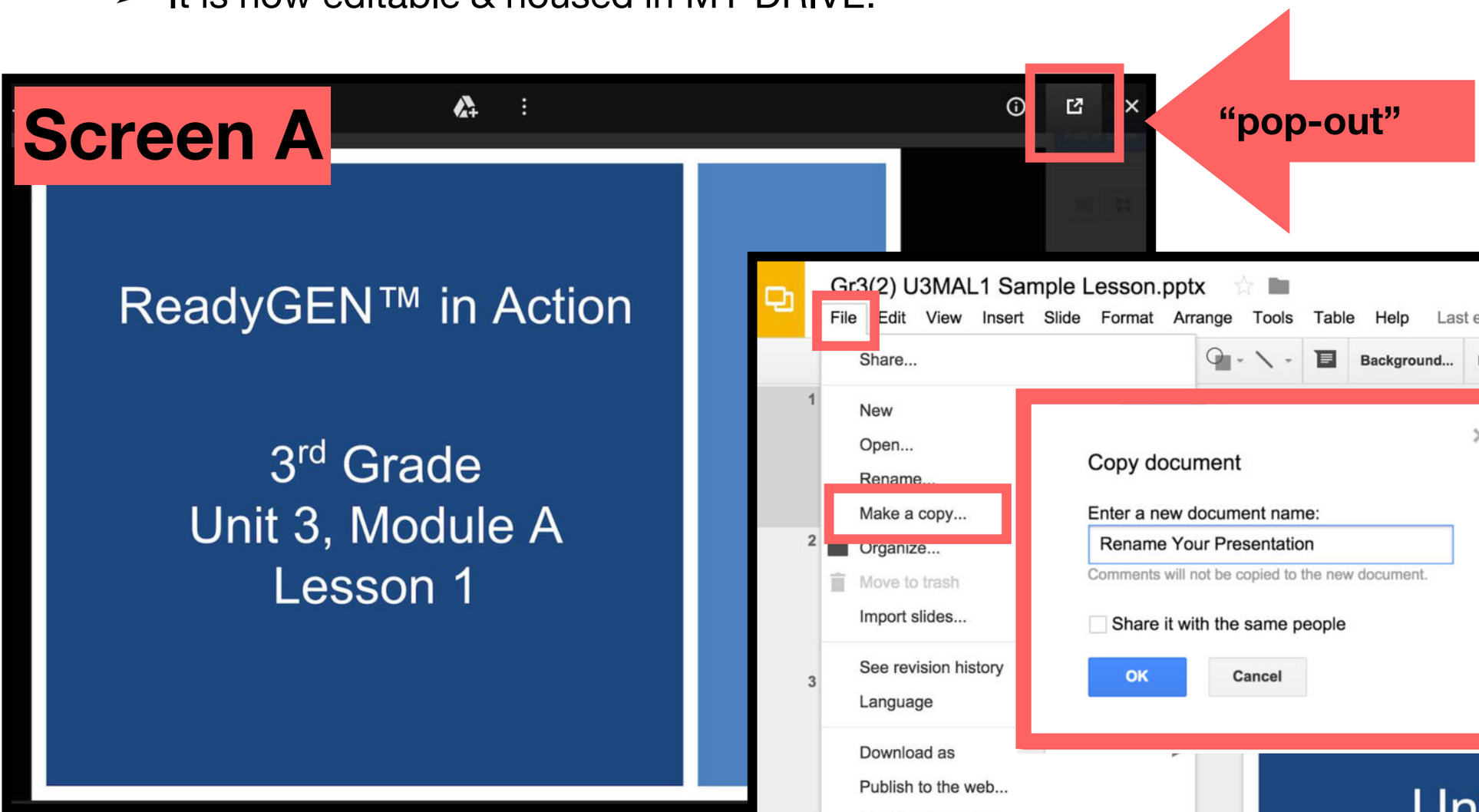
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

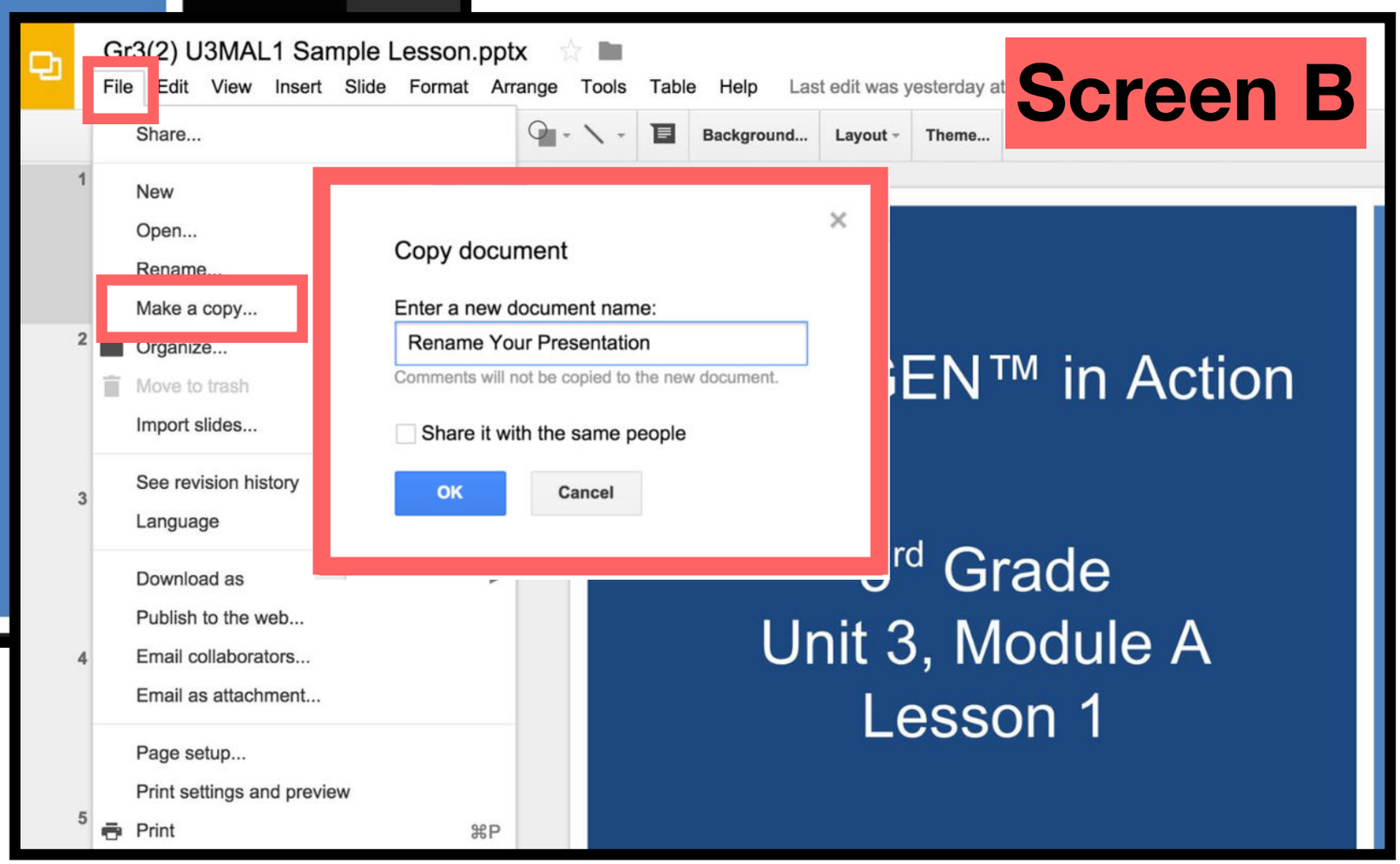
Directions for customizing presentations are available on the next slide.

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

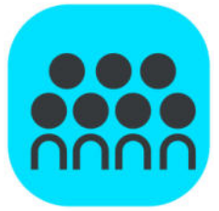
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

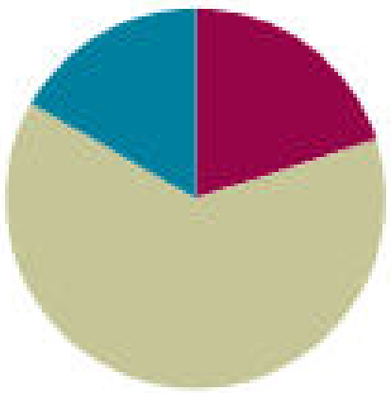
Small Group Time

Lesson 3

Objective: Demonstrate understanding of area and perimeter formulas by solving multi-step real-world problems.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Concept Development	(38 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



I can demonstrate understanding of area and perimeter formulas by solving multi-step real-world problems.

Fluency Practice

Sprint! Squares and Unknown Factors

Materials:

Squares and Unknown Factors Sprint

Fluency Practice

Find the Area and Perimeter

On your personal white board, write a multiplication sentence to find the area.

5 cm

Fluency Practice

Find the Area and Perimeter

Use the formula for perimeter to solve.

5 cm

Fluency Practice

Find the Area and Perimeter

On your personal white board, write a multiplication sentence to find the area.

cm

Fluency Practice

Find the Area and Perimeter

Use the formula for perimeter to solve.

7

cm

Fluency Practice

Find the Area and Perimeter

This is a square.
Say the length of each side

Fluency Practice

Find the Area and Perimeter

On your personal white board, write a multiplication sentence to find the area.

Fluency Practice

Find the Area and Perimeter

Use the formula for perimeter to solve.

Fluency Practice

Find the Area and Perimeter

This is a square.
Say the length of each side

Fluency Practice

Find the Area and Perimeter

On your personal white board, write a multiplication sentence to find the area.

Fluency Practice

Find the Area and Perimeter

Use the formula for perimeter to solve.

Fluency Practice

Find the Area and Perimeter

The area is 8 square cm.
On your white boards, write the division equation to find the width.

Fluency Practice

Find the Area and Perimeter

The area is 15 square cm.
Write the division equation to find the width.

Fluency Practice

Find the Area and Perimeter

The area is 42 square cm.
Write the division equation to find the width.

Concept Development

Materials

Problem Set

See teacher page for directions on lesson structure.

Concept Development

Students may work in pairs to solve Problems 1—4 below using the RDW approach to problem solving.

Concept Development

Problem 1

The rectangular projection screen in the school auditorium is 5 times as long and 5 times as wide as the rectangular screen in the library. The screen in the library is 4 feet long with a perimeter of 14 feet.

What is the perimeter of the screen in the auditorium?

Concept Development

Problem 2

The width of David's rectangular tent is 5 feet. The length is twice the width. David's rectangular air mattress measures 3 feet by 6 feet.

If David puts the air mattress in the tent, how many square feet of floor space will be available for the rest of his things?

Concept Development

Problem 3

Jackson's rectangular bedroom has an area of 90 square feet. The area of his bedroom is 9 times that of his rectangular closet.

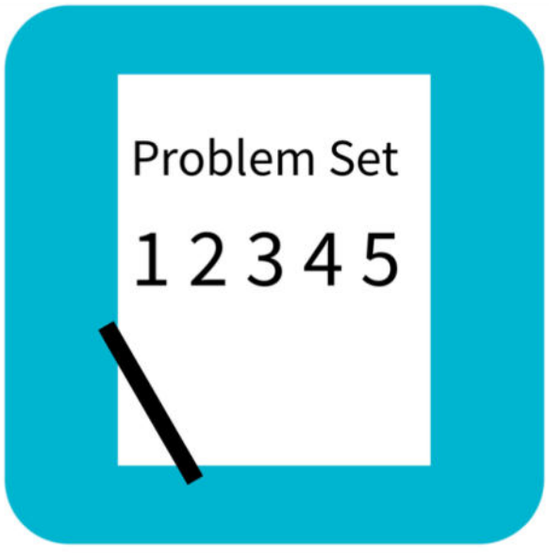
If the closet is 2 feet wide, what is its length?

Concept Development

Problem 4

The length of a rectangular deck is 4 times its width.

If the deck's perimeter is 30 feet, what is the deck's area?



Problem Set

Name _____ Date _____

Solve the following problems. Use pictures, numbers, or words to show your work.

1. The rectangular projection screen in the school auditorium is 5 times as long and 5 times as wide as the rectangular screen in the library. The screen in the library is 4 feet long with a perimeter of 14 feet. What is the perimeter of the screen in the auditorium?

Debrief

What simplifying strategies did you use to multiply to find the perimeter in Problem 1?

Can David fit another air mattress of the same size in his tent? (Guide students to see that while there is sufficient area remaining, the dimensions of the air mattress and remaining area of the tent would prevent it from fitting.)

How was solving Problem 3 different from other problems we have solved using multiplicative comparison?

Debrief

Explain how you used the figure you drew for Problem 4 to find a solution.

When do we use twice as much, 2 times as many, or 3 times as many? When have you heard that language being used?

Exit Ticket

Name _____ Date _____

Solve the following problem. Use pictures, numbers, or words to show your work.

A rectangular poster is 3 times as long as it is wide. A rectangular banner is 5 times as long as it is wide. Both the banner and the poster have perimeters of 24 inches. What are the lengths and widths of the poster and the banner?