Material List

(S) Multiply by 4 (6-10) (Pattern Sheet)

(S) Paper strip 1: 1 in x 12 in,
Paper strip 2: 1 cm x 12 cm, scissors, ruler, and problem set page lesson 2

(S) Personal white board

Eureka Math

3rd Grade
Module 4
Lesson 2

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

RDW — 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 2

Objective: Decompose and recompose shapes to compare areas.

Suggested Lesson Structure

■	Fluency Practice	(11 minutes)
■	Application Problem	(5 minutes)
■	Concept Development	(34 minutes)
■	Student Debrief	(10 minutes)
	Total Time	**(60 minutes)**
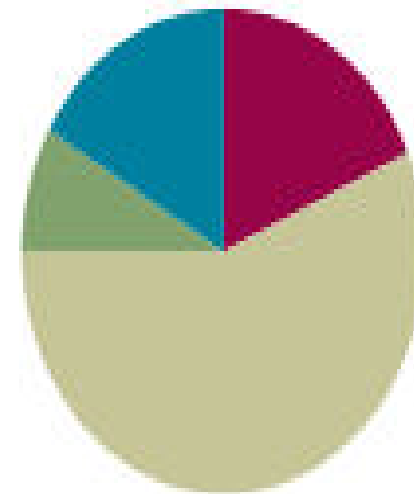
I can compare areas of shapes by decomposing and recomposing

Fluency Practice

Group Counting

Count forward and backward as I indicate with pointing my finger, by…

Sixes to 60

Fluency Practice

Group Counting

Count forward and backward as I indicate with pointing my finger, by…

Sevens to 70

Fluency Practice

Group Counting

Count forward and backward as I indicate with pointing my finger, by…

Eights to 80

Fluency Practice

Count forward and backward as I indicate with pointing my finger, by…

Nine to 90

Fluency Practice

Group Counting

Count forward and backward as I indicate with pointing my finger, by…

Nines to 90

Fluency Practice

Multiply by 4

Let's skip-count up by fours.

4

8

12

16

20

24

28

Fluency Practice

Multiply by 4
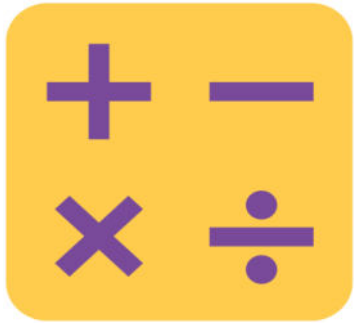
What is 7 X 4 ?

7 X 4 = 28

Fluency Practice

Multiply by 4

Let's see how we can skip-count down to find the answers,too. Start at 10 fours, 40

36

32

28

Multiply by 4

Let's practice multiplying by 4. Be sure to work left to right across the page.

Multiply.

4 x 1 = _____	4 x 2 = _____	4 x 3 = _____	4 x 4 = _____
4 x 5 = _____	4 x 6 = _____	4 x 7 = _____	4 x 8 = _____
4 x 9 = _____	4 x 10 = _____	4 x 6 = _____	4 x 7 = _____
4 x 6 = _____	4 x 8 = _____	4 x 6 = _____	4 x 9 = _____
4 x 6 = _____	4 x 10 = _____	4 x 6 = _____	4 x 7 = _____

Application Problem

Wilma and Freddie use pattern blocks to make the shapes below. Freddie says his shape is bigger because it's longer. Is he right? Explain your answer.

Freddie's Shape

Wilma's Shape

Application Problem

Wilma and Freddie use pattern blocks to make the shapes below. Freddie says his shape is bigger because it's longer. Is he right? Explain your answer.

Freddie's Shape

Wilma's Shape

Wilma's Shape: 6 triangles
6 rhombuses
1 hexagon

Freddie's Shape: 6 triangles
6 rhombuses
1 hexagon

No, Freddie is not right. They both use the same pattern blocks, but they arranged them differently. Since they used the same pattern blocks, their shapes have the same areas.

Concept Development

Measure your paper strip using your inch ruler.

How tall is it?

◻ Concept Development

Measure your paper strip using your inch ruler. How long is it?

12 inches long

⬜ Concept Development

Start at the edge of your strip and use your ruler to mark inches along the top. Do the same along the bottom. Use your ruler to connect the marks at the top to the matching marks at the bottom.

12 inches

Concept Development

What shape is each unit?

Square

☑ Concept Development

What is the area of the paper strip
in square units?

12 square units

Concept Development

Because the sides of the squares each measure

1 inch, we call one of these square inch.

What is the area of the paper strip

in square inches?

12 square inches

Concept Development

Cut your paper strip along the lines.

Then rearrange all 12 squares into

2 equal rows.

Remember, the squares must touch.

but can't overlap.

Concept Development

Draw your rectangle in Problem 1.

What is the area of the rectangle?

12 sq. in

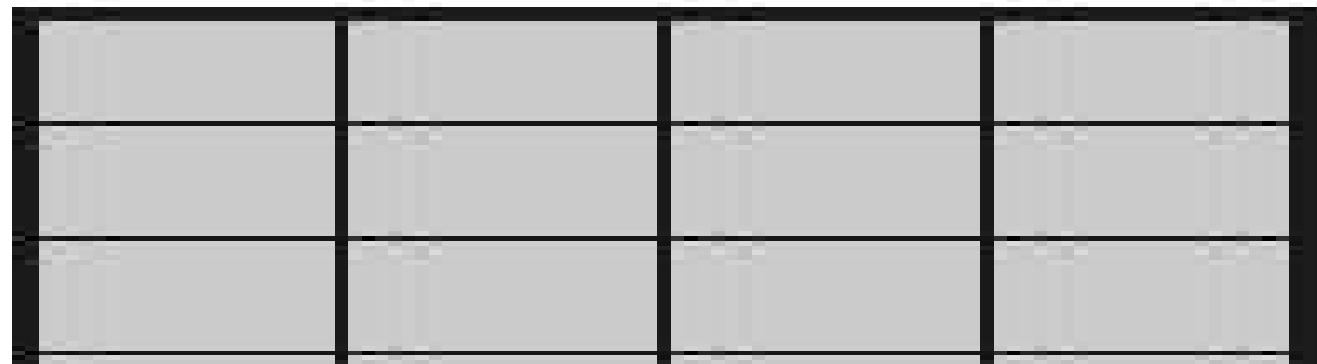Now rearrange all 12 squares into

3 equal rows.

Concept Development

Draw the rectangle in your chart.
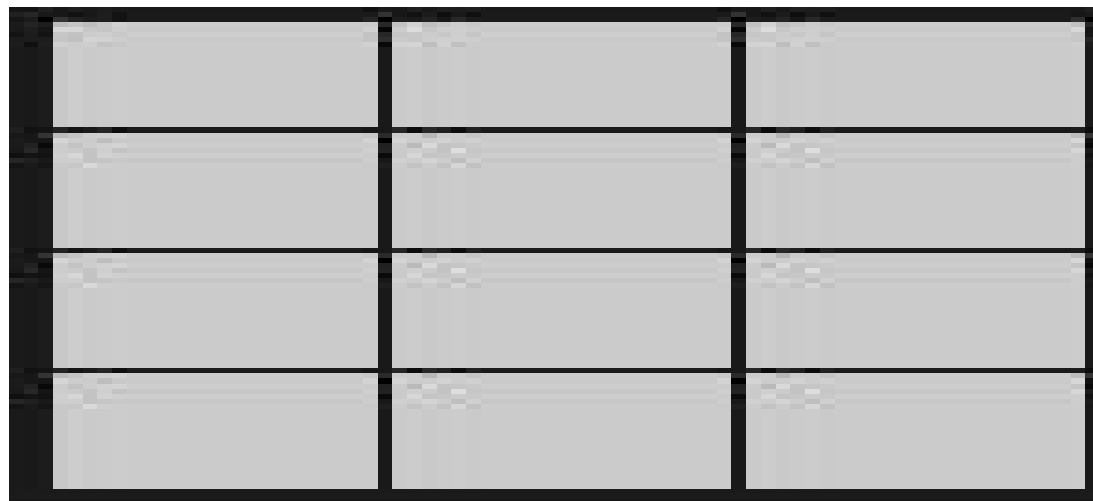
What is the area of the rectangle?

12 sq. in

Now rearrange all 12 squares into

4 equal rows.

Concept Development

Draw the rectangle in your chart.

What is the area of the rectangle?

12 sq. in

How is it possible for all three rectangles
to have the same area?

Problem Set

Name _____   Date _____

1. Use all of Paper Strip 1, which you cut into 12 square inches, to complete the chart below.

	Drawing	Area
Rectangle A		
Rectangle B		
Rectangle C		

Debrief

Any combination of the questions below may be used to lead the discussion.

*Talk to a partner. What new units did we define today?

*Look at Problem 4. If Maggie uses square inches for Shape A and square centimeters for Shape B, which shape has a larger area? How do you know?

*Compare the shape you drew in Problem 5 to a partner's. Are they the same? Do they have the same area? Why or why not?

*We started our lesson by using an inch ruler to break apart a rectangle into square inches. Turn and talk to a partner. Why was it important to break apart the rectangle into square inches?

Exit Ticket

Name _____   Date _____

1. Each ☐ is a square unit. Find the area of the rectangle below. Then, draw a different rectangle with the same number of square units.

2. Zach creates a rectangle with an area of 6 square inches. Luke makes a rectangle with an area of 6 square centimeters. Do the two rectangles have the same area? Why or why not?