### Eureka Math

Kindergarten Module 3 Lesson 16

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Directions for customizing presentations are available on the next slide.



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#### **Reflecting your Teaching Style and Learning Needs of Your Students**

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- > Click on the "pop-out" button in the upper right hand corner to change the view.
- $\succ$  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.





### Materials

- Teacher
  - Shape Signs (fluency 1 template)
  - $\circ$  Music
  - 1 set of student materials



### Materials

- Student:
  - Shape cutouts (include exemplars and non examples fluency 2 template)
  - Lined writing paper
  - Playing card
  - Bag of linking cubes
  - My square recording sheet
  - 1 four-inch square of construction paper
  - 1 four-inch diameter paper circle
  - 20 one-inch paper or plastic square tiles
  - 1 small bag of large flat beans
  - My square recording sheet

### Icons





Read, Draw, Write











Manipulatives Needed







#### Lesson 16

### Objective: Make informal comparison of area.

#### Suggested Lesson Structure

Total Time	(50 minutes)
Student Debrief	(7 minutes)
Concept Development	(25 minutes)
Application Problem	(5 minutes)
Fluency Practice	(13 minutes)





### I can make informal comparison of area.



### Groups of Shapes (5 min)

Choose a shape, and then meet at the rug.

Look at your shape. Raise your hand if you know the name of your shape. When I give the signal, whisper the name of your shape to yourself. Ready? (Signal.)





## Groups of Shapes (5 min)

Look around the room. So you see pictures with signs of shapes?

Do you see your shape?

When I start the music, I want you to calmly walk to the sign that has the same shape as yours.



### Groups of Shapes (5 min)

When I point to your group, say the name of your shape. (Point to the group of triangles.)





# Show Me Bigger and Smaller (3 min)

Let's use our hands to show taller and shorter. For taller, we'll do this...

To show shorter, we'll do this, hold your hands close like you're holding a tennis ball...

Let's practice. Show me taller.

Show me shorter.



# Show Me Bigger and Smaller (3 min)

Look at my marker (hold a marker upright), and look at my crayon. Is the crayon shorter or taller?

Show me the gesture for taller if you think the crayon is taller. Show me the gesture for shorter if you think the crayon is shorter.



## Building Up the Sprint Routine (5 min)

When I say "go," we are going to practice writing numbers 1–10 quickly, but carefully, like this. (Demonstrate.) When you hear the bell ring, you must stop and hold up your pencil, even if you are not finished. What do you do when you hear the bell?

Good. Remember, it's okay if you don't finish. Ready? Go!





## Building Up the Sprint Routine (5 min)

(Before students reach 10, ring the bell.) Pencils up,

up, up!



Wow! You really followed the directions! Let's practice again. Ready? Go!

# Application Problem (5 min)

How many linking cubes would you need to cover up your card? Make a guess! Now, work with your partner to test your guess. What did you discover? How many cubes did you need? Did your friends use the same number of cubes?





# Concept Development (25 min)

Place your square of paper on your desk. What are some things that would fit onto your square?





Will there be enough room for a circle like this? (Hold up circle.) (Various responses.) Let me give each of you a circle to test your guess.





### Will you have enough room for another circle?





On your recording sheet, let's draw what your square looks like now. (Demonstrate.)





Hold up a 1-inch paper square.) Will this fit on your paper? Is there enough space?



Do you think 5 of them will fit? (Various responses.) Take out your paper squares, and put 5 of them on the paper. Is there enough space for 1 more?

Put another square on the paper. (Repeat until the square is filled with smaller squares. Notice student strategies as they try to fit more onto their paper.)

So, your square held 1 circle. How many small squares did you need to fill your big square?



### Let's draw what we did on the recording sheet.



I wonder how many beans you would need to cover your square? (Various responses.) Work with your partner to put as many beans as you can on your square without piling them. (Allow time for experimentation and discussion.)





### What did you notice about using the beans?





Did you use more beans or squares in this activity?





## Problem Set (10 min)

Beans

Cover the shape with squares. Count how many, and write the number in the box.

Name





## Debrief (7 min)

• Were you able to cover the square entirely with

- your little squares or the beans? Why?
- Was that also true on the recording sheet? How
- were the two different? (Listen for discussion
- about how differences in sides and angles
- affected their work. Some students may notice
- the space between smaller units. Do not worry if
- they do not notice this because it is a concept
- they will encounter in Grade 3.)
- What strategies did you use to fit more things
- onto your paper?



## Debrief (7 min)

- When you were covering the square, how did you
- decide that you were done? When you were
- covering the shapes on the Problem Set, how did
- you decide that you were done?
- Were you surprised by the number of squares or
- beans needed to cover some of the shapes?
- What math vocabulary did we use today to communicate precisely?