

Eureka Math

Kindergarten Module 3 Lesson 29

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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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- The view now looks like Screen B.
- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
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- It is now editable & housed in MY DRIVE.





Materials

- Teacher
 - 4 real objects filled with various amounts of liquids (e.g., small bottle, mug, vase, and bowl)
 - Clear measuring cup
 - water
 - several vials of food coloring
 - an assortment of clear 1 or 2-cup capacity containers in various shapes (e.g., mug, bowl, small bottle, vase, or beaker)



Materials

- Student:
 - 5 linking cubes
 - Dice with 6-dot covered
 - My capacity museum recording sheet (Template)
 - crayons or markers

Icons



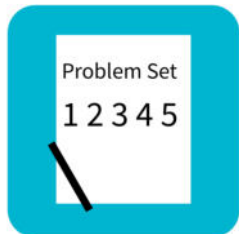
Read, Draw, Write



Learning Target



Personal White Board



Problem Set



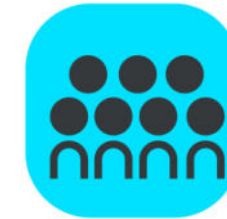
Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



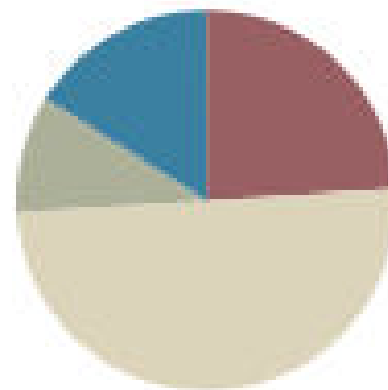
Small Group Time

Lesson 29

Objective: Observe cups of colored water of equal volume poured into a variety of container shapes.

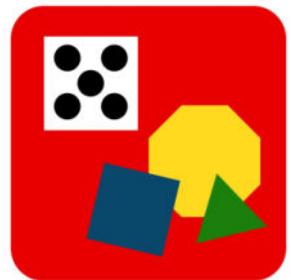
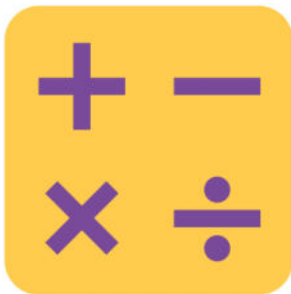
Suggested Lesson Structure

Fluency Practice	(12 minutes)
Concept Development	(25 minutes)
Application Problem	(5 minutes)
Student Debrief	(8 minutes)
Total Time	(50 minutes)





I can observe cups of water of equal volume poured into a variety of container shapes.



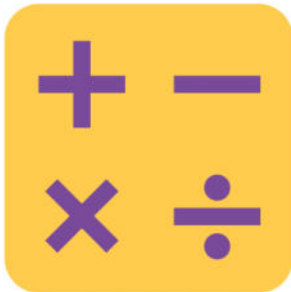
Tower Flip (5 min)

Touch and count your cubes.

How many cubes do you have?

Set them down on your table like a tower.



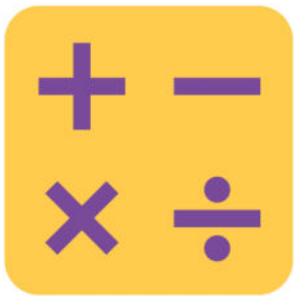


Tower Flip (5 min)

How many cubes are on the first tower?

On the other tower?

We can say 4 and 1 make 5. Echo me, please.



Tower Flip (5 min)

Good. Take another cube off the top of the first tower, and stick it onto the top of the other tower. Do you still have 5 cubes?

How many cubes are on the first tower?

On the other tower?

Give me the ...and...make... statement.



5-Group Fill-Up (4 min)

1. Partner A rolls the dice and draws a corresponding 5-group with Os.
2. Partner B completes the 10 by drawing Xs.
3. Both Partners engage in math talk: “I have 3. You drew 7 more to make 10.”



Full, Not Full, or Empty? (3 min)

Look at my water bottle. It is full because the water comes right to the top. I can't possibly put any more water in here! Repeat after me, "It is full."





Full, Not Full, or Empty? (3 min)

(Drink some of the water.) Now, it is not full. Echo.





Full, Not Full, or Empty? (3 min)

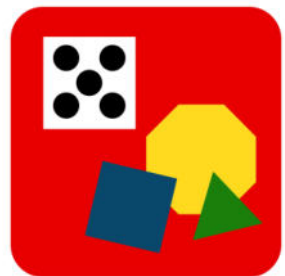
(Show an empty water bottle.) This is my bottle from yesterday. There is no more water in it. Repeat after me, “It is empty.”





Full, Not Full, or Empty? (3 min)

Now, I'll show you some more things, and I want you to tell me if they are full, not full, or empty. Raise your hand when you know what to say. (Wait for all hands to go up, then signal.) Ready?



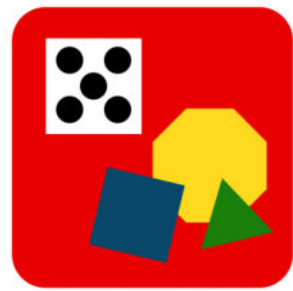
Full, Not Full, or Empty? (3 min)

Very good. (Hold up a vase of flowers with a little water in it.) Raise your hand when you know what to say. (Wait for all hands to go up, then signal.) Ready?

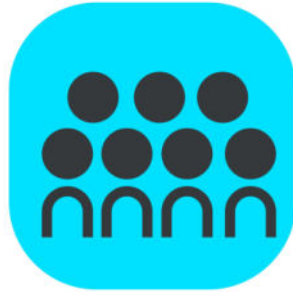


Right. (Show students an empty bowl.)

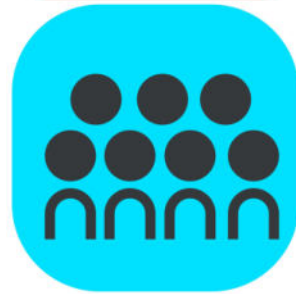
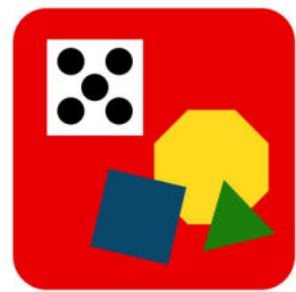
Ready?



Concept Development (25 min)



We are going to create some art today! You will be creating entries for your own Capacity Museum.

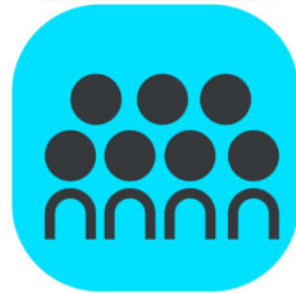


Concept Development (25 min)

I have a cup of water. Student A, would you please come put two drops of red food coloring in my water container? (Assist Student A.)

Is my cup full?





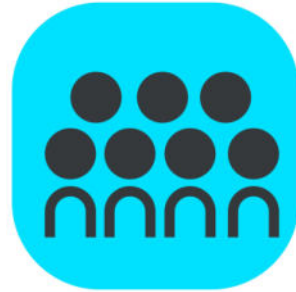
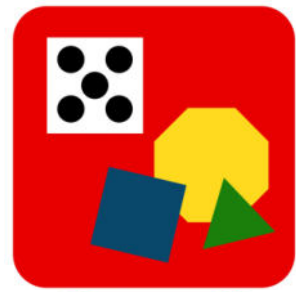
Concept Development (25 min)

Watch as I pour the red water into this bowl.
(Demonstrate.) Did I change the amount of water in
my cup?

Does it still look the same?



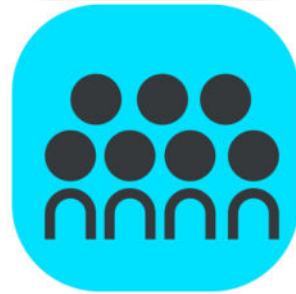
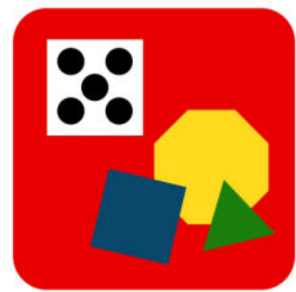
Why do you think it looks different?



Concept Development

(25 min)

Why do you think it looks different?



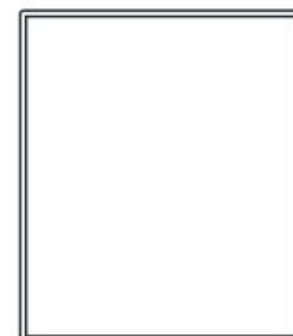
Concept Development

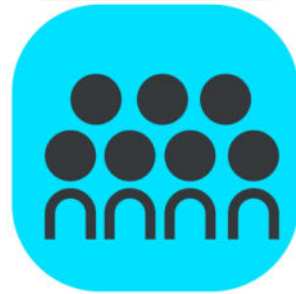
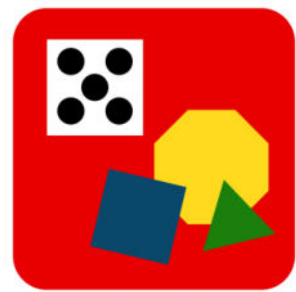
(25 min)

Yes, the bowl and the cup have different **capacities**. The bowl holds more water than the cup does. On your sheet, please choose one of the picture frames. Inside it, draw the bowl, and show how the water looks in the k

Name _____ Date _____

My Capacity Museum!

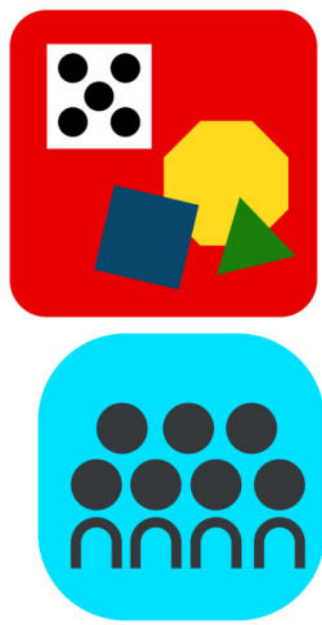




Concept Development (25 min)

I will fill my measuring cup with some new water. Student B, would you please come put two drops of blue food coloring in the cup? (Assist as necessary.)



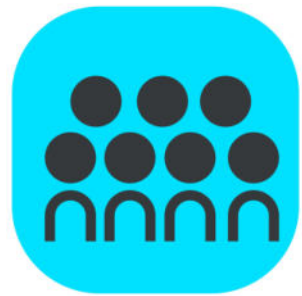


Concept Development

I will carefully pour the blue water into this vase.
(Demonstrate.) Did I change the amount of water?

Does it look the same?



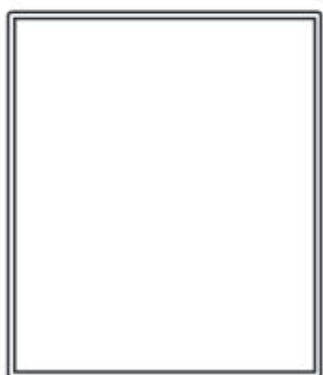


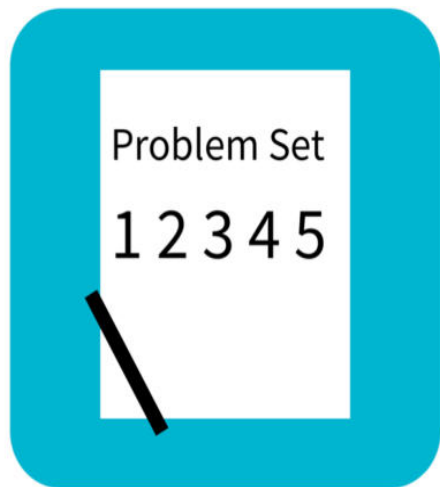
Concept Development

The cup and the vase have the same capacity but a different shape! Let's draw the water in the vase in another one of the frames on your sheet.

Name _____ Date _____

My Capacity Museum!



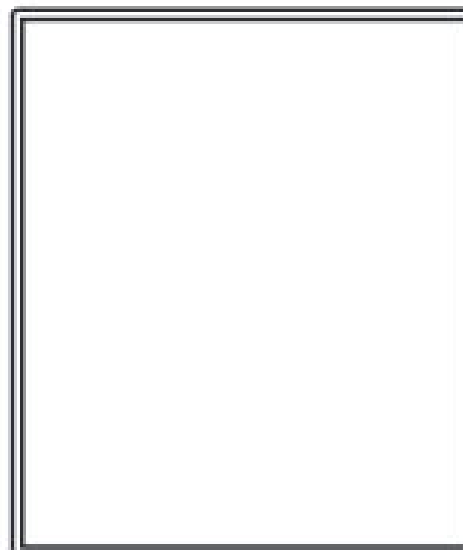
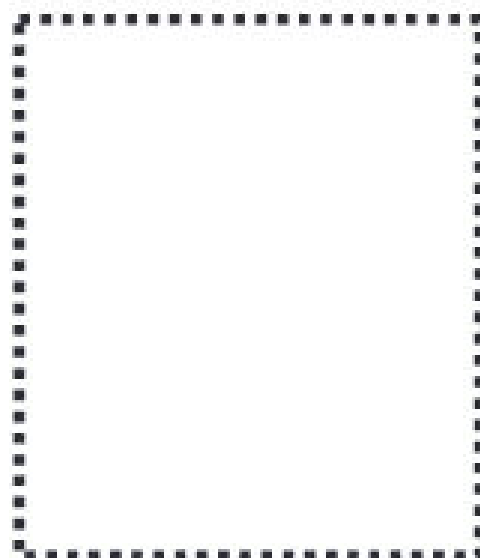
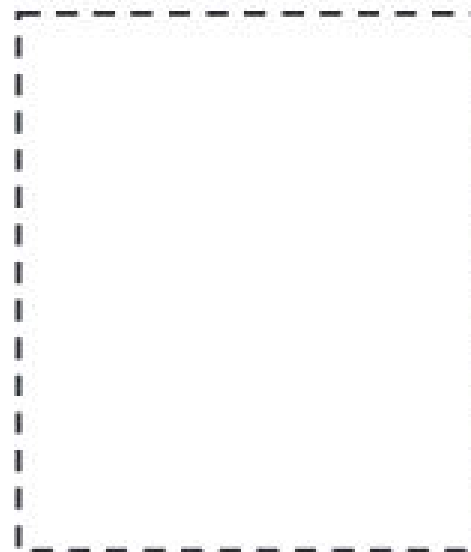


Problem Set

(10 min)

Name _____ Date _____

My Capacity Museum!





Application Problem

(5 min)

Demoss had a very small carton of orange juice. His mom poured it into a very tall glass without spilling any juice. Close your eyes and think about what that might look like. Draw the little carton of juice. Now, draw the juice after she poured it into the big glass. Does Demoss have more or less juice, or does it just look different? Compare your drawings with your partner's. Are both of your glasses full? Did the glass hold all of the juice?



Debrief (8 min)

- Why did the water look different in each of the containers?
- Did the amount of the water change each time?
- Turn to your partner, and compare your drawings.
Do they look the same?
- Which container do you think would hold the most?
- How did you determine if a container was empty, not full, or full?
- How did you know when a container was full?



Debrief (8 min)

- How can full be different in certain situations? (For example, with a mug of hot chocolate, you don't want to fill it too full and spill.)
- When do we need full to mean right to the top?
- What new (or significant) math vocabulary did we use today to communicate precisely?
- How did the Application Problem connect to today's lesson?