# Eureka Math

## 1st Grade
## Module 3
## Lesson 12

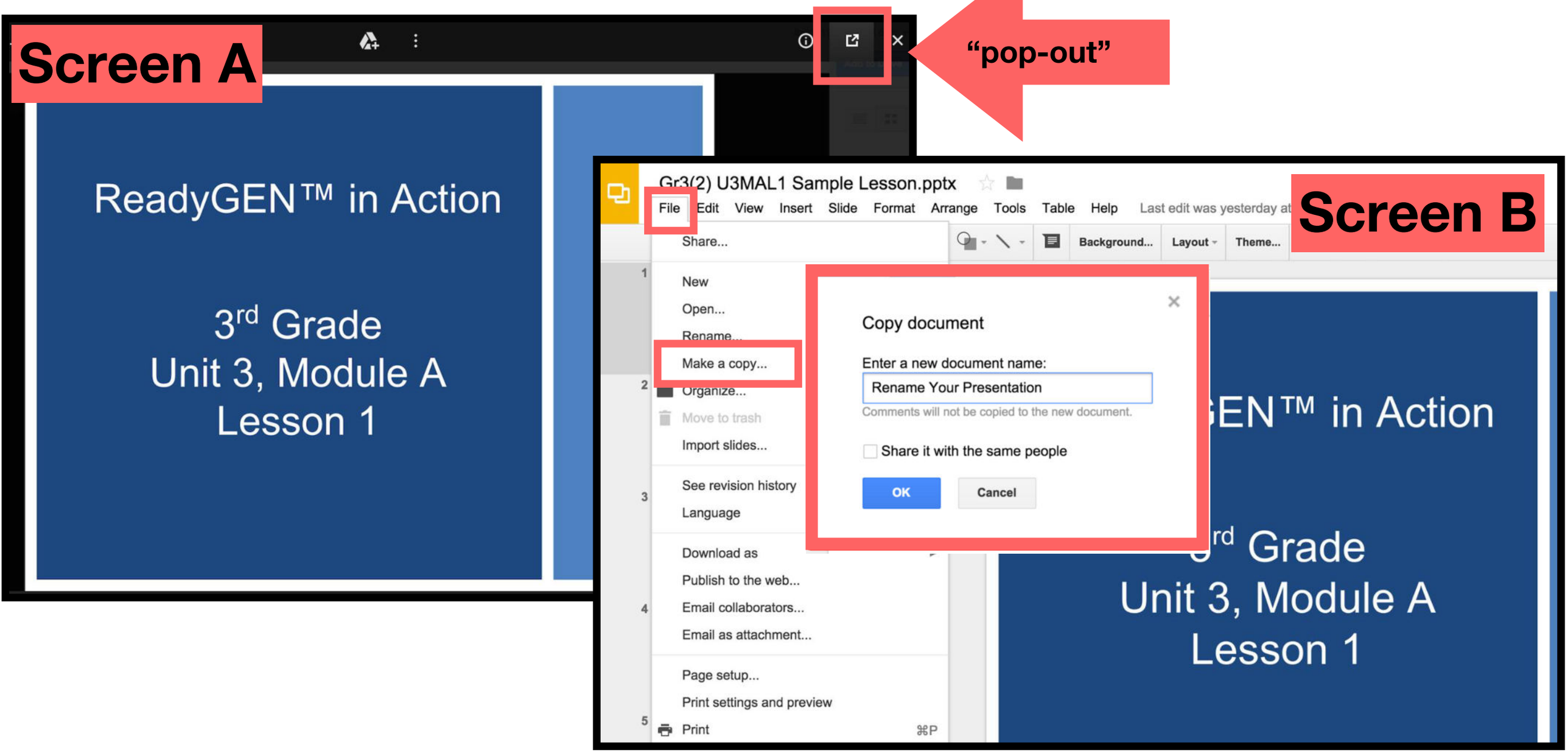
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

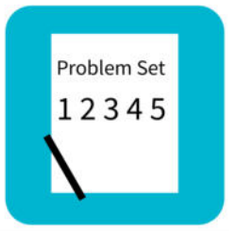


# Icons


Read, Draw, Write

Learning Target

Personal White Board

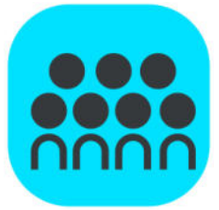



Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

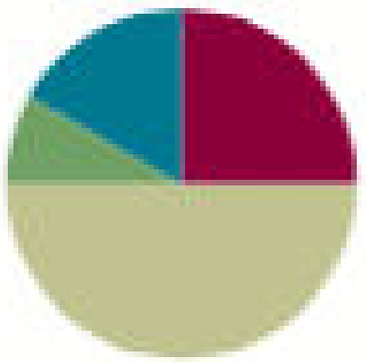
Small Group Time

## Lesson 12

Objective: Ask and answer varied word problem types about a data set with three categories.

### Suggested Lesson Structure

| | |
|---|---|
| Fluency Practice | (15 minutes) |
| Application Problem | (5 minutes) |
| Concept Development | (30 minutes) |
| Student Debrief | (10 minutes) |
| **Total Time** | **(60 minutes)** |



# Materials Needed

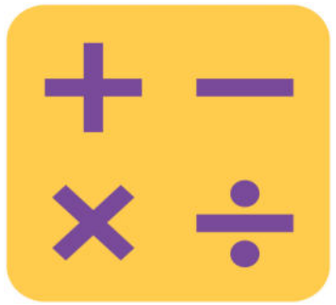
- (S) Numeral cards 0–10 (Lesson 2 Fluency Template 2), counters (if needed)
- (T) 20-bead Rekenrek
- (S) Personal white board
- (T) Chart with a three-column vertical graph entitled Our Favorite Fruits
- (T) hart with measuring rules( from Lesson 7) (post on the side of the board)
- (T) Favorite Read Aloud Books chart (Lesson 10)
- (S) Sticky notes
- (S) personal white board

I can collect, sort, and organize data and then ask and answer questions about the number of data points.

# Addition with Cards

Let’s play addition cards!

1. Shuffle or mix your numeral cards.
2. Each partner places her deck of cards face down.
3. Each partner flips over two cards and adds her cards together.
4. The partner with the greater total keeps the cards played by both players that round.



# Get to 10 or 20

Let’s practice getting to 10 or 20 with the Rekenrek!

# Subtraction with Partners

Let’s practice getting to 10 or 20 with the Rekenrek!

# Application Problem

Kingston's class took a trip to the zoo. He collected data about his favorite African animals. He saw 2 lions, 11 gorillas, and 7 zebras. What might his table look like? Write one question your classmate can answer by looking at the table.

RDW

# Concept Development

What are some of your favorite fruits?

# Concept Development

My vote is for _____ as my favorite fruit. I’m going to place my sticky note right beneath the line where it says _____.

# Concept Development

Who likes _____ the best? Place your sticky note right beneath the line where it says_____?

# Concept Development

We need one more person who likes the fruit I liked. When you place his sticky note, you’re going to put it right beneath my sticky note so there are no gaps or overlap.

# Concept Development

What do you notice about the rules for completing this chart with our votes on the sticky notes?

# Concept Development

I heard you say the rules are just like the rules for measuring!  We had to line up our endpoints when we first started!  We couldn’t have any overlaps or gaps.  The sticky notes are the same size, the same length unit.

# Concept Development

Excellent connections! Let’s have the rest of our classmates complete the graph as they put up their votes following these rules.

# Concept Development

Which fruit is the most popular in our class? Which fruit is the least popular? That means it has the fewest number of votes. How can you tell?

# Concept Development

I heard these ideas! I counted. The fruit with the highest total is the most popular. I just looked at the sticky notes. The longest strip of notes means the most votes.The shortest strip means the fewest number of votes. This reminds me of measuring again! The one that used the most length units to measure is the longest one, and that is the most popular fruit!

# Concept Development

How many students voted for each fruit?

# Concept Development

When we organize our data this way, it makes it easy for us to compare. We call this a graph. A graph lets us see the data easily. In this graph, it lines up our data just like when we measure lengths of different items, so we can easily compare.

# Concept Development

Which received more votes: _____ or _____?

# Concept Development

_____ got more votes! Did you have to look at the numbers for each, or could you see it just by looking at the lengths of the bars made of notes?

# Concept Development

I heard you share that you just looked at the bar of notes.  The longer bar of notes has more.

# Concept Development

How many more students would _____ need to have the same amount as _____? Tell your partner how you figured it out.notes.  The longer bar of notes has more.

# Concept Development

I heard you share I just counted the part that was longer, the part that was sticking out.  I used subtraction. I  used addition with a mystery number in the middle.  This reminds me of measuring again! We used all of these strategies when we tried to figure out which length was longer when we compared two things!

# Concept Development

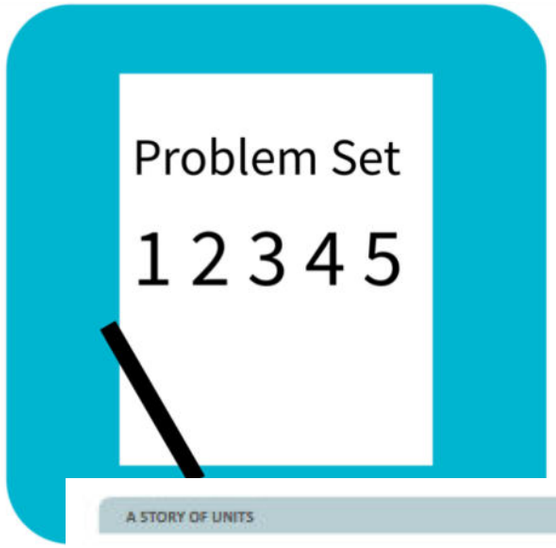
You are right! So, how many more votes did _____receive than _____?

# Concept Development

You are right! So, how many fewer votes did _____receive than _____?

# Concept Development

Let’s answer some more questions about our data!

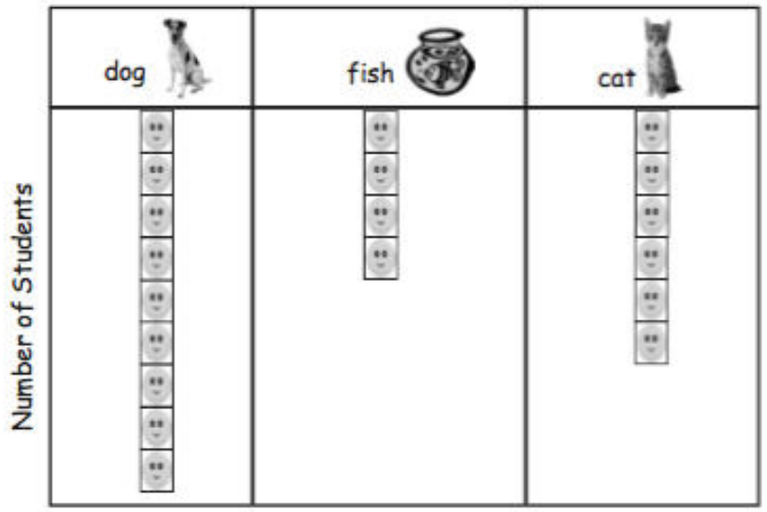



# Problem Set



Each student in the class added a sticky note to show his or her favorite kind of pet. Use the graph to answer the questions.

Favorite Pet ▭ = 1 student




5. How many students chose dogs or cats as their favorite pet?

_____ students

6. How many more students chose dogs as their favorite pet than cats?

_____ students

7. How many more students chose cats than fish?

_____ students

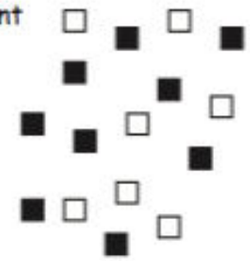


Name _____ Date _____

Use squares with no gaps or overlaps to organize the data from the picture. Line up your **squares** carefully.

Favorite Ice Cream Flavor ☐ = 1 student

| Flavors | Number of Students |
|---|---|
| ☐ vanilla | |
| ■ chocolate | |



1. How many **more** students liked chocolate than liked vanilla? _____ students

2. How many **total** students were asked about their favorite ice cream flavor?

_____ students

Ties on Shoes Number of Students ☐ = 1 student

| Types of Shoe Ties | Number of Students |
|---|---|
| Velcro | ☐☐☐☐☐ |
| laces | ☐☐☐☐☐☐☐☐ |
| no ties | ☐☐☐☐☐☐☐ |

3. Write a number sentence to show how many **total** students were asked about their shoes.

_____

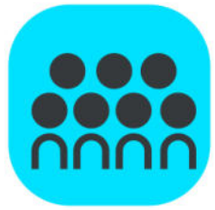
4. Write a number sentence to show how many **fewer** students have Velcro on their shoes than laces.

_____

# Debrief

What are some strategies to figure out how many more or fewer votes a category received compared to the other?

# Debrief



How are tables and **graphs** similar?
How are they different?

# Debrief

How are the graphs that are used with Problems 3 and 5 different? How are they similar?

# Debrief

How is measuring objects similar to creating graphs like these to compare information about different categories?

# Debrief

How does a graph that is created properly help you see and understand information better? Did you follow these rules when you made your graph for Problem 1?

# Debrief

How does a graph that is created properly help you see and understand information better? Did you follow these rules when you made your graph for Problem 1?

# Debrief

Look at your Application Problem. What question did you come up with about your table? Share with your partner, and answer each other’s question.

# Exit Ticket

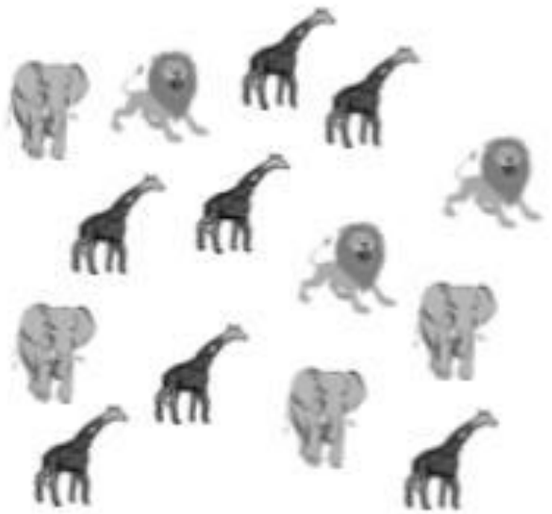


Name _____ Date _____

Use squares with no gaps or overlaps to organize the data from the pictures.
Line up your **squares** carefully.

Favorite Animals at the Zoo

| Zoo Animals | Number of Students |
|---|---|
| giraffe | |
| elephant | |
| lion | |



Each picture represents 1 student's vote.

1. Write a number sentence to show how many **total** students were asked about their favorite animal at the zoo.

_____

2. Write a number sentence to show how many **fewer** students like elephants than like giraffes.

_____