Eureka Math

2nd Grade
Module 4
Lesson 12

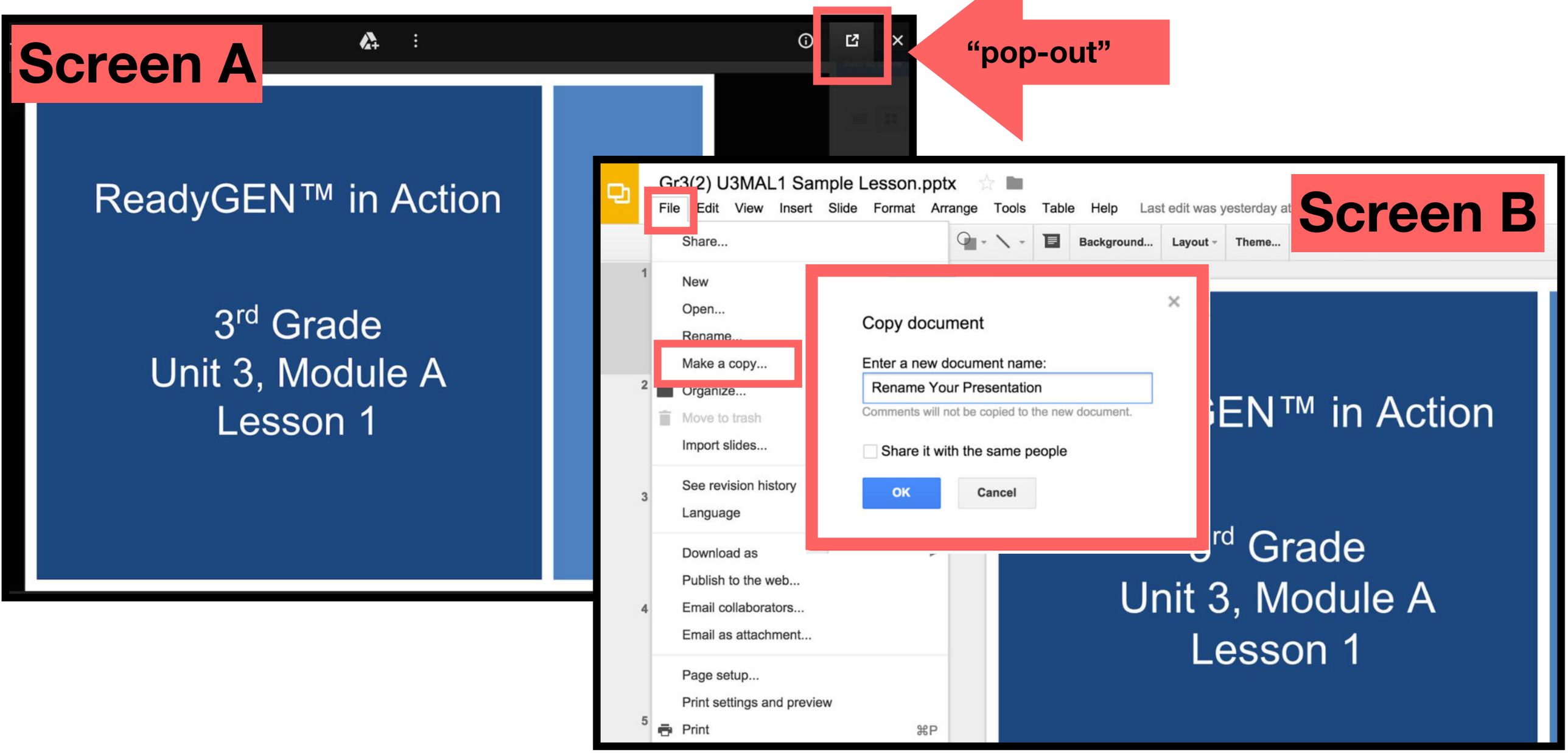
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

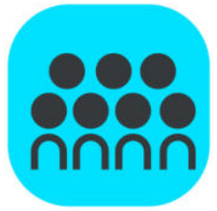
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

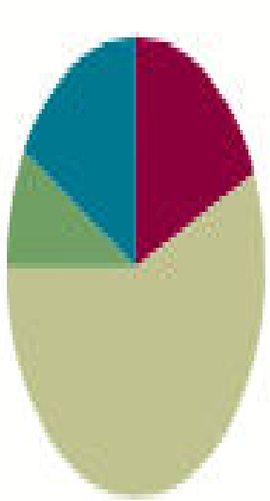
Small Group Time

Lesson 12

Objective: Relate manipulative representations to a written method.

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 use the manipulative to a written method.

Materials Needed:

Concept Development:

- (T) Place value disks (19 ones, 9 tens),
- (T)Unlabeled tens place value chart (Lesson 1 Template)
- (S) Place value disks (19 ones, 9 tens),
- (S)unlabeled tens place value chart (Lesson 1 Template),
- (S)place value disks (Lesson 6 Template)
- (S) personal whiteboards

Using 10 to Subtract

16 - 9?

10 - 9?

1 + 6?

15 - 9?

13 - 8?

15 - 7?

16 - 7?

12 - 9?

13 - 7?

Getting the Ten Out and Subtract.

For every number sentence I give, subtract the ones from the tens. When I say 12 - 4, you say 10 - 4 = 6. Ready?

12 - 4.

13 - 7

Now let’s add back the ones

12 - 4

Add back the 2

6 + 2 = 8

13 - 7

11 - 8

13 - 9

15 - 7

14 - 8

How Many More Tens?

If I say 45 - 35, you say 10. To say how many more tens in the sentence, you say 45 is 10 more than 35. Ready?

65 - 45

Say is in a sentence.

85 - 45

74 - 24

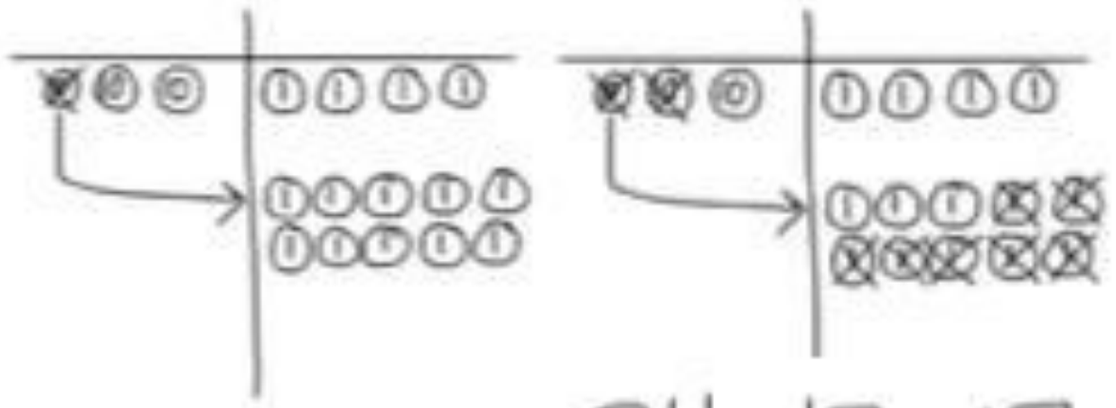
59 - 29

38 - 18

99 - 19

Application problems

Barb has a bag of 34 cherries. She eats 17 cherries for a snack. How many cherries does she have left?



34 - 17 = 17

Barb has 17 cherries left.

Concept Development

Problem 1:
35 - 9 =

What is the whole?

What is the part that we know?

What do we need to find?

When we use place value disks to solve a subtraction problem, we only put the whole on our chart. Turn to your neighbor, and tell him or her why we only show the whole when subtracting.

Concept Development

Count the total value of the disks as I place them. Say the units, too.

10 10	1 1 1 1 1

Today, as we solve subtraction problems, we are going to record our work in vertical form.

What is the whole we are subtracting from?

Concept Development

We want to look carefully at the whole when subtracting, like a detective, to see if we need to do any unbundling. Let's draw an imaginary magnifying glass around 25.

10 10	1 1 1 1 1

25

\- 11

Let's start by looking at the smallest place value, the ones: Can we take 1 one disk from 5 ones disks?

Let's move to the tens column. Can I take 1 ten from 2 tens?

Concept Development

25
- 11
14

We are ready to subtract because we have checked to make sure we have enough units in each place value.

10 10	1 1 1 1 1

Take 1 one from the 5 ones.

How many ones are left?

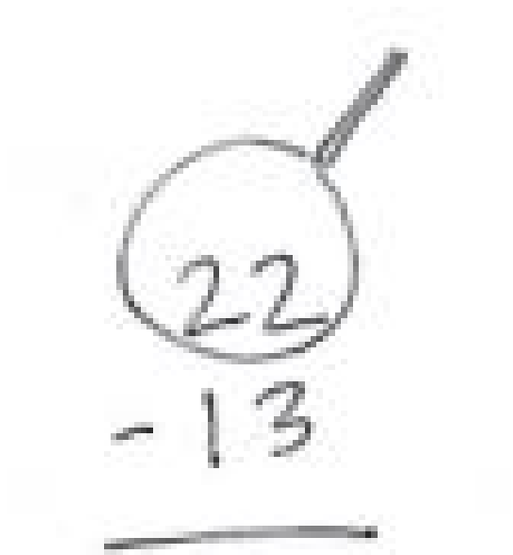
Take 1 ten from the 2 tens.

What is 25 - 11?

Concept Development

Problem 2: Let's try another problem together. This time I want you to record your answers vertically as I do.

What should I do first?

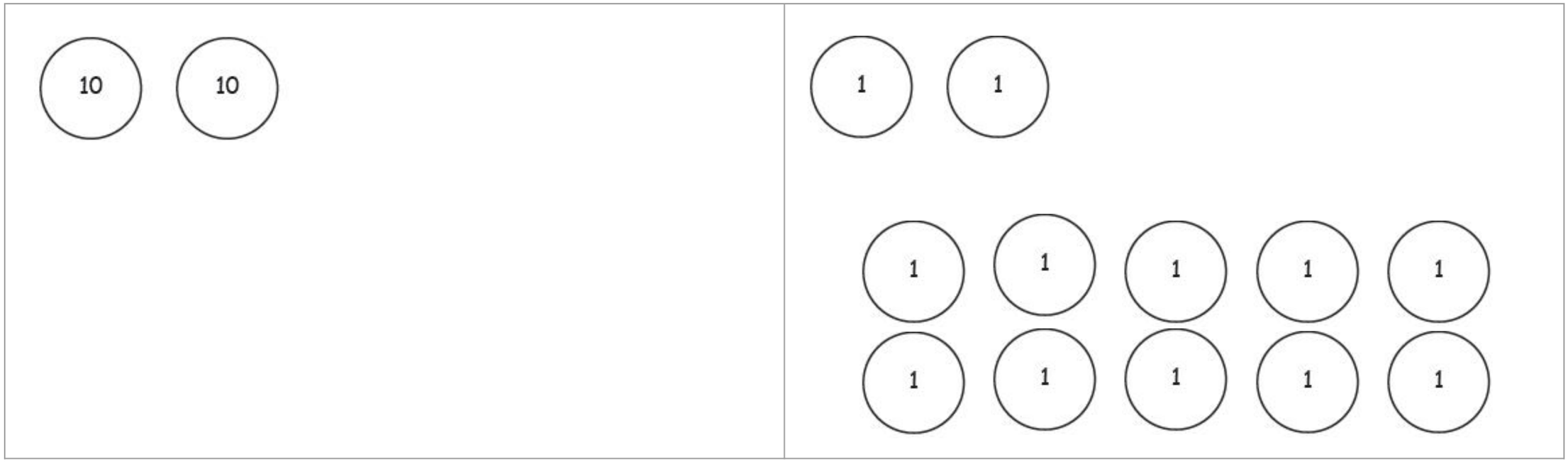


Okay, I'm looking closely at it. Where do I start?

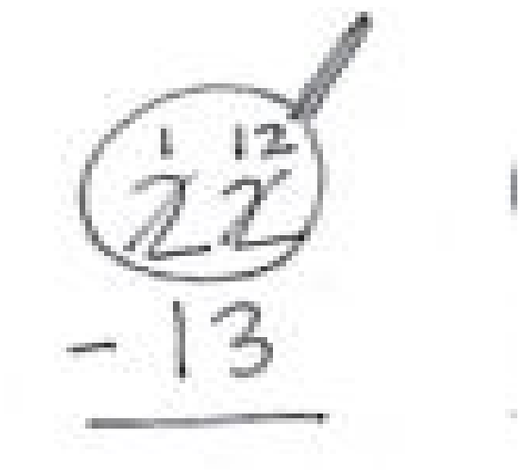
Can I subtract 3 ones from 2 ones?

What should I do?

Concept Development



Whatever I do to my place value disks, I must also do to the numbers in vertical form. How should I record unbundling a ten?



Now how many tens and ones do you see on my place value chart?

Concept Development

10 10	1 1 1 1 1 1 1 1 1 1 1 1

Can I subtract 3 ones now?

12 ones minus 3 ones is…?

1 ten minus 1 ten is….?

Can I subtract 1 ten now?

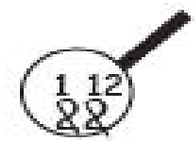
22 - 13 =

Problem Set

Name _____ Date _____

1. Use place value disks to solve each problem. Rewrite the problem vertically, and record each step as shown in the example.

a. 22 – 18



$$\begin{array}{r} 1\ 12 \\ 2\ 2 \\ -\ 1\ 8 \\ \hline 4 \end{array}$$

b. 20 – 12

c. 34 – 25

d. 25 – 18

Debrief

How did unbundling a ten help you to solve Problem 1(b)?

How did you solve Problem 1(c)? How did you use the place value disks on the chart to show decomposing a ten?

Explain to your partner how you used place value disks to solve Problem 1(d). How did your work with the place value disks match the vertical form?

Debrief

How did you solve Problem 1(e) using place value disks and the vertical form? How could you have solved this problem differently using a simplifying strategy?

For Problem 2, explain to your partner how you know who is correct, Terry or Pam?

How does Problem 3(a) help us to solve Problem 3(b)?

Exit Ticket

Name _____ Date _____

Sherry made a mistake while subtracting. Explain her mistake.

Sherry's Work:	Explanation:
$\begin{array}{r} {}^{1}\not{4}\not{4} \\ -\ 26 \\ \hline 28 \end{array}$	