Grade 3 Unit 3 Bridges Preparation List
Module 1-4

Unit 3 Module 1:
Session 1 Unit 3 Pre-Assessment Preparation:

• Write the list of Work Places from which students can choose today. You can just write the numbers (1G–2D) or write out the full names if you prefer. (See the list in the Work Places in Use row of the Materials Chart for the complete list of Work Places used today.)

• Note that you will need to score the Unit 3 Pre-Assessment before Session 4. (See the Grade 3 Assessment Guide for scoring and intervention suggestions.) If you cannot mark the Unit 3 Pre-Assessment by Session 4, make room for reflection time during another session in this module.

Session 2 Rounding to the Nearest Ten Preparation:

In today's session, you'll introduce Work Place 3A Round Ball Tens, which replaces 1G Target One Hundred. Before this session, you should review the Work Place Guide and Work Place Instructions and assemble the bin for Work Place 3A, using the materials listed on the guide. The Work Place Guide also includes suggestions for differentiating the game to meet students' needs.

• You'll need a half-class set of the 3A Round Ball Tens Record Sheet Teacher Masters, plus one for display, to introduce the game to the students today

Session 3 Round & Add Tens Preparation:

In today's session, you'll introduce Work Place 3B Round & Add Tens, which replaces 1H Anything But Five. Before this session, you should review the Work Place Guide and Work Place Instructions and assemble the bin for Work Place 3B, using the materials listed on the guide. You will need to run at least a half-class set of the 3B Round & Add Tens Record Sheet for use by student pairs after you play the game with the whole group.

• Remove the Unit 1 Work Place Log Teacher Master from the front of each student's Work Place folder, and replace it with a copy of the Unit 3 Work Place Log Teacher Master, stapled at all four corners. Leave the Unit 2 Work Place Log stapled to the back of each folder. This will allow students to keep track of their visits to the Unit 2 Work Places that remain in use and also track their progress through the new Work Places as they're introduced, starting today.

• Write a list of Work Places from which students can choose today. You can just write the numbers (2A–3B) or write out the full names if you prefer. (See the Work Places in Use row of the Materials Chart for the complete list of Work Places in use today.)

• Prepare a place, either on the whiteboard or on a large piece of chart paper, to record student strategies during the problem string. Students will solve seven problems, and you'll record their strategies with number lines and equations. (See step 2 for sample recording.)

Session 4 Rounding to the Nearest Hundred Preparation:

Construct a closed number line on the board (or on a piece of paper for use with a document camera) by drawing, marking, and numbering a line similar to the one shown here.

• In today's session, you'll introduce Work Place 3C Round Ball Hundreds, which replaces 2A, Loops & Groups. Before this session, you should review the Work Place Guide and Work Place Instructions and assemble the bin for Work Place 3C, using the materials listed on the guide. The Work Place Guide also includes suggestions for differentiating the game to meet students' needs.

• You will need a class set of the 3C Round Ball Hundreds Record Sheet, as well as a copy for display, in order to play the game with the students today.

Session 5 Three-Digit Addition Story Problems Preparation:
Display the Addition Strategies chart from Unit 1, Module 4, Session 2 where everyone can see it clearly. Plan to keep it posted for Session 6 as well.

• Assign partners for today's story problems.

• Read Session 6 to see how students might share their work from today's session, and use the Three-Digit Addition Story Problems Math Forum Planner to help select students to share in tomorrow's math forum.

• Write a list of Work Places from which students can choose today. You can just write the numbers (2B–3C) or write out the full names if you prefer. (See the Work Places in Use row of the Materials Chart for the complete list of Work Places in use today.)

Session 6 Three-Digit Addition Story Problems Forum Preparation:

Display the Addition Strategies chart from Unit 1, Module 4, Session 2 where everyone can see it clearly. During today's math forum you will record additional strategies students use to solve 3-digit addition story problems. After the session, use the original chart as well as the record of strategies discussed in today's math forum to create a new, consolidated version of the Addition Strategies chart. Keep this updated Addition Strategies chart posted in the classroom if you have room, or save it for use again in Unit 4, Module 2, Session 3.

• Use the Three-Digit Addition Story Problems Forum Planner to decide which four or five students you want have to share in today's forum and in what order.

• Write a list of Work Places from which students can choose today. You can just write the numbers (2B–3C) or write out the full names if you prefer. (See the Work Places in Use row of the Materials Chart for the complete list of Work Places in use today.)

Unit 3 Module 2:
Session 1 Three-Digit Subtraction Story Problems Preparation:

Display the Subtraction Strategies charts from Unit 1, Module 4, Session 4 where everyone can see them clearly.

Take 38 away from 53 a little bit at a time.

First take away 30 to get to 23.

Then take away 3 to get to 20.

Then take away 5 to get to 15.

53 − 38 = 15

$$53 - 38 = 53 - 30 - 3 - 5$$
$$= 23 - 3 - 5$$
$$= 20 - 5$$
$$= 15$$

53 − 38 = 15

(number line: −5, −3, −30; 15 20 23 53)

Subtract a friendly number and then adjust.

Take 40 away from 53. That's 13.

Then add 2, because 40 is 2 more than 38.

53 − 38 = 15

$$53 - 38 = 53 - 40 + 2$$
$$= 13 + 2$$
$$= 15$$

(number line: +2, −40; 13 15 53)

Add up from 38 to 53.

Add 2 to get to 40.

Then add 13 to get to 53.

53 − 38 = 15

38 + _____ = 53
38 + 2 = 40
40 + 13 = 53
So 38 + 15 = 53 and that means 53 − 38 = 15
The difference between 53 and 38 is 15.

(number line: +2, +13; 38 40 53)

Take 49 away from 72 a little bit at a time.

First take away 40 to get to 32.

Then take away 2 to get to 30.

Then take away 7 to get to 23.

72 − 49 = 23

$$72 - 49 = 72 - 40 - 2 - 7$$
$$= 32 - 2 - 7$$
$$= 30 - 7$$
$$= 23$$

(number line: −7, −2, −40; 23 30 32 72)

Subtract a friendly number and then adjust.

Take 50 away from 72. That's 22.

Then add 1, because 50 is 1 more than 49.

72 − 49 = 23

$$72 - 49 = 72 - 50 + 1$$
$$= 22 + 1$$
$$= 23$$

(number line: +1, −50; 22 23 72)

Add up from 49 to 72.

Add 1 to get to 50.

Then add 22 to get to 72.

49 + 23 = 72, so 72 − 49 = 23.

49 + 1 = 50
50 + 22 = 72
49 + 23 = 72, so 72 − 49 = 23.

(number line: +1, +22; 49 50 72)

• Read Session 2 to see how students might share their work from today's session, and use the Three-Digit Subtraction Story Problems Math Forum Planner to help select students to share their work in tomorrow's math forum.

Session 2 Constant Difference Preparation:

Use the Three-Digit Subtraction Story Problems Forum Planner to decide which four or five students you want to have share their work in today's forum and in what order.

• Post one or more pieces of chart paper where everyone can see them during the math forum.

Students will make a constant difference in their journals.
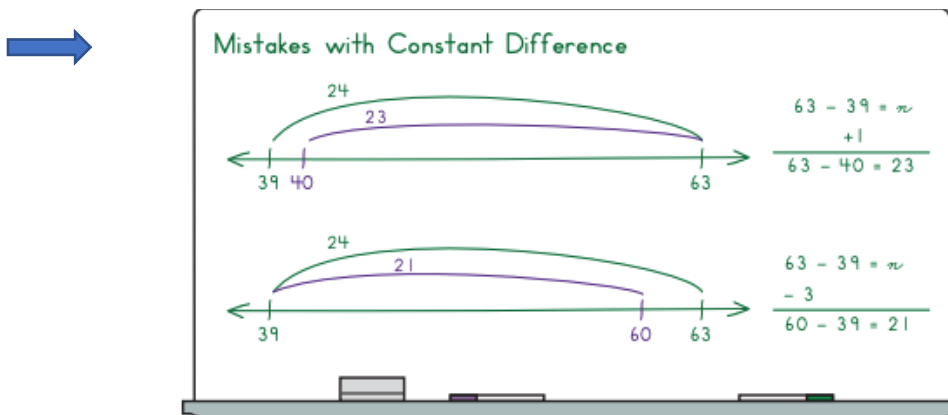
Session 3 Which Makes the Most Sense? Preparation:

Write a list of Work Places from which students can choose today. You can just write the numbers (2B–3C) or write out the full names if you prefer. (See the Work Places in Use row of the Materials Chart for the complete list of Work Places in use today.)

• Prepare a place, either on the whiteboard or on a large piece of chart paper, to record student strategies during the problem string. Students will solve seven problems, and you'll record their strategies with number lines and equations. (See step 2 for sample recording.)

• Use the observations you have made over the past several days to think about which students you might confer with one on one or in small groups during Work Places. Your conferences don't have to relate to any of the Work Place activities; instead, use the time to coach, support, or challenge students in areas of need

**Session 4 Charting Subtraction Strategies Preparation:**

Label one sheet of chart paper with the title Number Line Subtraction Strategies: 2-Digit Combinations. Under the title, record the equation $51 − 26 = n$. Label the second sheet with the title Number Line Subtraction Strategies: 3-Digit Combinations. Under the title, record the equation $562 − 347 = n$.

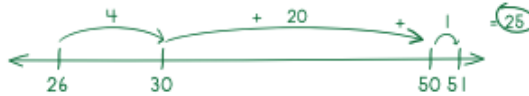**Number Line Subtraction Strategies: 2-Digit Combinations**

$51 - 26 = n$

Removal (take away)
Jumping back by 10s and 1s

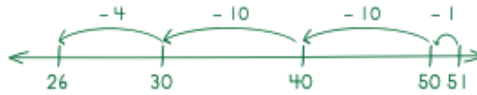$-1\ -1\ -1\ -1\ -1\ -1$ -10 -10
25 31 41 51
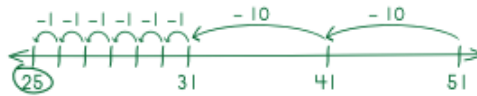
Finding the Difference
Jumping from small to big

4 $+20$ $+1$ 25
26 30 50 51

Finding the Difference
Jumping from big to small
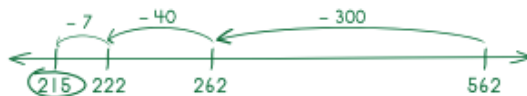
-4 -10 -10 -1
26 30 40 50 51

$4 + 10 + 10 + 1 = 25$

Number Line Subtraction Strategies: 3-Digit Combinations

$562 - 347 = n$

Removal (take away)
Taking big jumps
with place value

-7 -40 -300
215 222 262 562

Finding the Difference
Constant Difference

215 215
347 350 562 565

$562 - 347 = n$
$+ 3\ \ + 3$
$\overline{565 - 350 = 215}$

• Read Session 5 to see how students might share their work from today's session. Before tomorrow's forum, use the Subtraction Strategies Forum Planner to help select students to share their work.

• Students will work in pairs to solve story problems today. Think about how you want to pair them beforehand.

Session 5 Subtraction Strategies Forum Preparation:

Use the Subtraction Strategies Forum Planner to decide which four or five students you want to have share their work in today's forum and in what order.

• Post one or more pieces of chart paper where everyone can see them during the math forum.

• Post the subtraction strategies charts from last session in the discussion area.

• Write a list of Work Places from which students can choose today. You can just write the numbers (2B–3C) or write out the full names if you prefer. (See the Work Places in Use row of the Materials chart for the complete list of Work Places in use today.)

Unit 3 Module 3:

Session 1 Round & Add Hundreds Preparation:

• In today's session, you'll introduce Work Place 3D Round & Add Hundreds, which replaces 2B Frog Jump Multiplication. Before this session, you should review the Work Place Guide and Work Place Instructions and assemble the bin for Work Place 3D, using the materials listed on the guide.

• You'll need a half-class set of the 3D Round & Add Hundreds Record Sheet (or a full class set, if students play independently), as well as a copy for display, in order to play the game with the students today.

• Write a list of Work Places from which students can choose today. You can just write the numbers (2C–3D) or write out the full names if you prefer. (See the Work Places in Use row of the Materials Chart for the complete list of Work Places in use today.)

Session 2 Sketching & Writing Expanded Notation Preparation:

• Run 10 copies of the Base Ten Mats Teacher Master. Cut out the pairs of base ten mats on each sheet, and glue or tape them together to form two strip-mats of 1,000. (Each stripmat should be 1 mat wide and 10 mats long.)

• Write a list of Work Places from which students can choose today. You can just write the numbers (2C–3D) or write out the full names if you prefer. (See the Work Places in Use row of the Materials Chart for the complete list of Work Places in use today.)

Session 3 About How Far? Preparation:

Write a list of Work Places from which students can choose today. You can just write the numbers (2C–3D) or write out the full names if you prefer. (See the Work Places in Use row of the Materials Chart for the complete list of Work Places in use today.)

Session 4 Solving Travel Miles Problems Preparation:

Unit 3 Module 4:

Session 1 Exploring the Algorithm for Addition Preparation:

Record each strategy on a separate piece of 12" × 18" drawing paper labeled with the student's name. • Ask the contributing students to work with the rest of the class to name

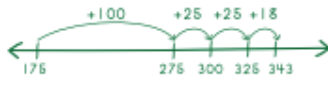their strategies. Note Be sure to save the posters you create today, as you will use them again in Session 2.

Jamal's Front–End Method

175
+ 168
‾‾‾‾‾‾

100 + 100 = 200
70 + 60 = 130
5 + 8 = 13

200
130
+ 13
‾‾‾‾‾
343 cans
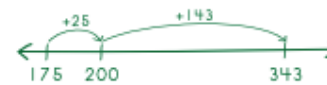
Rhonda's Add a Friendly Number Method

175
+ 168
‾‾‾‾‾‾

+100   +25 +25 +18

175   275 300 325 343

100 + 25 + 25 = 150
150 + 18 = 168
If you start at 175 and make hops that total
168, you get to 343, so it's 343 cans.

Jenny's Sketch, Add & Count Method

175
+ 168
‾‾‾‾‾‾

200 + 70 = 270
270, 280, 290, 300, 310,
320, 330, 335, 340, 343 cans

Darryl's Start with the 1s Method

1 1
175
+ 168
‾‾‾‾‾‾
343 cans

5 + 8 = 13
You have to move the 10 in the
13 over to the 10s column.

10 + 70 + 60 = 140
You have to move the 100 in
140 over to the 100s column.

100 + 100 + 100 = 300

Sara's Give and Take Method

175
+ 168
‾‾‾‾‾‾

+25   +143

175 200   343

175 + 168
+ 25 – 25
200 + 143 = 343 cans

Session 2 Think Before You Add Preparation:

Post the addition strategy posters where everyone can see them. If you did not make a poster for the standard algorithm for addition, make it now and add it to the collection.

When there are about 10 minutes remaining, bring the class back together to discuss the big ideas of today's lesson.

> ## Which addition strategies work best?
>
> ○ You don't have to use the same strategy all the time.
>
> ○ Look at the numbers first to see which strategy might work best.
>
> ○ Look for times when you can take some from one of the numbers and give it to the other number to make the problem easier.
>
> ○ If you don't have to regroup, the traditional algorithm is fast and easy — just line the numbers up and add.
>
> ○ The standard algorithm always works, so it's good if you can't think of an easier strategy.

Session 4 Think Before You Subtract Preparation:

Post the subtraction strategy posters where everyone can see. If you did not make a poster for the standard algorithm for subtraction, make it now and add it to the collection.

When there are about 10 minutes remaining, bring the class back together to discuss the big ideas of today's lesson. Work with the class to make some generalizations about the different subtraction strategies they've used to solve problems today. Ask the following questions to build conversation and record ideas on chart paper.
• How do you decide which strategy to use? • Is the standard algorithm always the quickest and easiest?
• What about the constant difference strategy?
• Can you think of a problem that would be easy to solve with the constant difference strategy?
• Can you think of a problem that would be easy to solve with the standard algorithm?

> ## Which subtraction strategies work best?
>
> ○ You don't have to use the same strategy all the time.
>
> ○ Look at the numbers first to see which strategy might work best.
>
> ○ Look for ways to use constant difference to make the problems easier.
>
> ○ If you don't have to regroup, the algorithm is fast and easy.
>
> ○ The algorithm always works, so it's a good thing to know when you can't think of an easier way to solve the problem.