Assessment of Grade 2 Numeracy

The assessment of Grade 2 Numeracy is organized on the basis of a Concepts, Algorithms, Skills Hierarchy of development (a CASH map). This map lays out a sequence for assessing as well as teaching.

 2.N.1. Say the number sequence from 0 to 100 by 2s, 5s, and 10s, forward and backward, using starting points that are multiples of 2, 5, and 10 respectively 10s using starting points from 1 to 9 2s starting from 1 	2.N.2. Demonstrate if a number (up to 100) is even or odd.
2.N.3.	2.N.4.
Describe order or relative position using	Represent and describe numbers to 100,
ordinal numbers.	concretely, pictorially, and symbolically.
2.N.5.	2.N.6.
Compare and order numbers up to 100.	Estimate quantities to 100 using referents.
r r r r r r r r r r r r r r r r r r r	
2.N.7.	2.N.8.
Illustrate, concretely and pictorially, the	Demonstrate and explain the effect of adding
meaning of place value for numerals to 100.	zero to or subtracting zero from any number.
2.N.9.	2.N.10.
 Demonstrate an understanding of addition (limited to 1- and 2-digit numerals) with answers to 100 and the corresponding subtraction by using personal strategies for adding and subtracting with and without the support of manipulatives creating and solving problems that involve addition and subtraction explaining that the order in which numbers are added does not affect the sum explaining that the order in which numbers are subtracted may affect the difference 	 Apply mental mathematics strategies, such as using doubles making 10 one more, one less two more, two less building on a known double addition for subtraction to determine basic addition facts to 18 and related subtraction facts.



Summary of results

2.N.1 (counting)

- Emergent knowledge (total score of 6 or less)
- Low level developed knowledge (total score between 7 and 15 inclusive)
- _____ Mid level developed knowledge (total score between 16 and 22 inclusive)
- High level developed knowledge (total score of 23 or more)

2.N.2 (odd/even)

- _____ Emergent knowledge (total score of 1 or less)
- Low level developed knowledge (total score between 2 and 3 inclusive)
- Mid level developed knowledge (total score between 4 and 5 inclusive)
- High level developed knowledge (total score of 6 or more)

2.N.3 (ordinal number)

- ____ Emergent knowledge (total score of 0)
- Low level developed knowledge (total score of 1)
- Mid level developed knowledge (total score between 2 and 3 inclusive)
- High level developed knowledge (total score of 4 or more)

2.N.4 (represent to 100) NOT decode or sum/difference

- Emergent knowledge (total score of 2 or less)
- Low level developed knowledge (total score between 3 and 8 inclusive)
- _____ Mid level developed knowledge (total score between 9 and 12 inclusive)
- _____ High level developed knowledge (total score of 13 or more)

2.N.4 (represent to 100: SUM/DIFFERENCE only)

- _____ Emergent knowledge (total score of 1 or less)
- Low level developed knowledge (total score between 2 and 4 inclusive)
- Mid level developed knowledge (total score between 5 and 6 inclusive)
- High level developed knowledge (total score of 7 or more)

2.N.4 (represent to 100: DECODE only)

- Emergent knowledge (total score of 82 or less)
- Low level developed knowledge (total score between 3 and 4 inclusive)
- _____ Mid level developed knowledge (total score between 5 and 7 inclusive)
- High level developed knowledge (total score of 8 or more)

2.N.5 (compare & order to 100) NOT verify re: place value

- Emergent knowledge (total score of 4 or less)
- Low level developed knowledge (total score between 5 and 10 inclusive)
- Mid level developed knowledge (total score between 11 and 16 inclusive)
- _____ High level developed knowledge (total score of 17 or more)

2.N.5 (compare & order to 100: ONLY verify re: place value)

- Emergent knowledge (total score of 0 or less)
- Low level developed knowledge (total score between 1 and 2 inclusive)
- Mid level developed knowledge (total score between 2 and 4)
- High level developed knowledge (total score of 4 or more)

2.N.6 (estimate to 100)

- _____ Emergent knowledge (total score of 1 or less)
- Low level developed knowledge (total score of 2)
- _____ Mid level developed knowledge (total score between 3 and 4 inclusive)
- _____ High level developed knowledge (total score of 5 or more)

2.N.7 (place value to 100)

- _____ Emergent knowledge (total score of 8 or less)
- Low level developed knowledge (total score between 9 and 17 inclusive)
- _____ Mid level developed knowledge (total score between 18 and 28 inclusive)
- _____ High level developed knowledge (total score of 29 or more)

2.N.8 (add/subtract zero)

- _____ Emergent knowledge (total score of 1 or less)
- Low level developed knowledge (total score between 2 and 3 inclusive)
- _____ Mid level developed knowledge (total score between 4 and 5 inclusive)
- _____ High level developed knowledge (total score of 6 or more)

2.N.9 (add to 100: ONLY meaning of +)

- _____ Emergent knowledge (total score of 1 or less)
- _____ Low level developed knowledge (total score of 2)
- _____ Mid level developed knowledge (total score between 3 and 4 inclusive)
- _____ High level developed knowledge (total score of 5 or more)

2.N.9 (add to 100): NOT meaning of +

- Emergent knowledge (total score of 3 or less)
- Low level developed knowledge (total score between 4 and 7 inclusive)
- _____ Mid level developed knowledge (total score between 8 and 12 inclusive)
- High level developed knowledge (total score of 13 or more)

2.N.9 (subtract to 100: ONLY meaning of -)

- Emergent knowledge (total score of 1 or less)
- Low level developed knowledge (total score of 2)
- _____ Mid level developed knowledge (total score between 3 and 4 inclusive)
- _____ High level developed knowledge (total score of 5 or more)

2.N.9 (subtract to 100): NOT meaning of -

- Emergent knowledge (total score of 2 or less)
- Low level developed knowledge (total score between 3 and 5 inclusive)
- Mid level developed knowledge (total score between 6 and 10 inclusive)
- High level developed knowledge (total score of 10 or more)

2.N.10 (mental math)

- Emergent knowledge (total score of 1 or less)
- Low level developed knowledge (total score between 2 and 4 inclusive)
- Mid level developed knowledge (total score between 5 and 6 inclusive)
- High level developed knowledge (total score of 7 or more)

Instructions.

- Do as indicated for each task. The order of listing of the assessment items DOES NOT indicate the order of assessing or teaching. Refer to the CASH map for direction on sequencing.
- Ensure that the student understands what you are expecting him/her to do but DO NOT help the student by giving hints or answers to a task.
- For scoring a student response (see example below), write a 0, 1, 2, or 3 (sometimes more than 3) in the appropriate response slot.
 - 0: Has errors in saying number words from 5 to 10.
 - 1: Says number words without error from 5 to 10.
 - 2: Says number words without error from 5 to 20.
 - 3: Says number words without error from 5 to 30.
- For observations (see below), deduct .25 or .5 if the student is hesitant in responding to a task. Add .25 or .5 if the student responds with confidence. If the student self-corrects, no point is deducted or added. Use your judgment on deciding this for each task. The matter has to do with what the student does MOSTLY on a particular task.
 - Hesitant
 - Self-corrects Confident
- If there is an additional question indicated for a task, ask it and record the student's answer. Follow the scoring instructions attached to the additional question.
- Record any other observations you deem noteworthy.
- Calculate the total score for assessing a particular outcome by adding the student response values for the tasks and adding/deducting any observation scores. Write the total score in the indicated place at the end of the tasks.
- Use the total score to determine which level (emergent, low level developed, ...) the student is in for the outcome. Place a check mark in the appropriate slot in the summary page (see example below).
 - _____ Emergent knowledge (total score of 2 or less)
 - Low level developed knowledge (total score between 3 and 4 inclusive)
 - _____ Mid level developed knowledge (total score between 5 and 7 inclusive)
 - High level developed knowledge (total score of 8 or 9)
- When determining which level the student is at for an outcome also include any relevant information obtained from 'Other observations' to help determine the level.

Assessment for 2.N.1 (counting)

<u>ITEM 1</u>:

- Say 8. Ask student to skip count by 2's to 30 from 8 on.
- Say 46. Ask student to skip count by 2's to 60 from 46 on.
- Say 70. Ask student to skip count by 2's to 92 from 70 on.
 O: Has error(s) in each task.
- 1: Has error(s) in two of the three tasks.
 Hesitant

 2: Has error(s) in one of the three tasks.
 Self-corrects

 3: Has no errors.
 Confident

Other observations

<u>ITEM 2</u> :	
• Say 15. Ask student to skip count by 5's to 40 from 15 on.	
• Say 60. Ask student to skip count by 5's to 100 from 60 on.	
0: Has 3 errors.	
1: Has 2 errors.	Hesitant
2: Has 1 error.	Self-corrects
3: Has no errors.	Confident
Other observations	

<u>ITEM 3</u> :	
Say 30. Ask student to skip count by 10's to 100 from 30 on.	
0: Has 3 errors.	
1: Has 2 errors.	Hesitant
2: Has 1 error.	Self-corrects
3: Has no errors.	Confident
Other observations	

<u>ITEM 4</u> : Say 62 Ask student to skip count by 2's backwards to 30 from 62	
0: Has 3 errors. 1: Has 2 errors.	Hesitant
2: Has 1 error. 3: Has no errors.	Self-corrects Confident
Other observations	

<u>ITEM 5</u> :	
Say 70. Ask student to skip count by 5's backwards to 25 from 70.	
0: Has 3 errors.	
1: Has 2 errors.	Hesitant
2: Has 1 error.	Self-corrects
3: Has no errors.	Confident
Other observations	

<u>ITEM 6</u> :	
Say 90. Ask student to skip count by 10's backwards to 30 from 90.	
0: Has 3 errors.	
1: Has 2 errors.	Hesitant
2: Has 1 error.	Self-corrects
3: Has no errors.	Confident
Other observations	

<u>ITEM 7</u> :	
Say 3. Ask student to skip count by 10's to 43 from 3 on.	
Say 6. Ask student to skip count by 10's to 56 from 6 on.	
Say 9. Ask student to skip count by 10's to 69 from 9 on.	
0: Has error(s) in each task.	
1: Has error(s) in two of the three tasks.	Hesitant
2: Has error(s) in one of the three tasks.	Self-corrects
3: Has no errors.	Confident
Other observations	

<u>ITEM 8</u>:

Tell student you are going to do some skip counting. You may or may not be making an error each time. The student's job is to find any errors and to correct them.

- Say 6, 8, 10, 12, 14, 18, 20. Repeat as needed.
- Say 20, 25, 30, 40, 45, 50, 55, 60. Repeat as needed.
- Say 40, 50, 60, 70, 100. Repeat as needed.
- 0: Has error(s) in each task.

Other observations

<u>ITEM 9</u>:

- Present student with 17 pennies. Ask student to tell you how many cents the pennies are worth.
- Present student with 6 nickels. Ask student to tell you how many cents the nickels are worth.
- Present student with 7 dimes. Ask student to tell you how many cents the dimes are worth.

 0: Has error(s) in each task. 1: Has error(s) in two of the three tasks. 2: Has error(s) in one of the three tasks. 	Hesitant Self-corrects
3: Has no errors.	Confident
Other observations	

Assessment for 2.N.2 (odd/even)

<u>ITEM 1</u>:

- Present student with 20 counters. Ask student to use some of the counters to show you an even number of counters.
- Present student with 20 counters. Ask student to use some of the counters to show you an odd number of counters.
- Show student a hundreds chart. Ask student to point to even number bigger than ten and less than thirty in the chart.
- Show student a hundreds chart. Ask student to point to even number bigger than fifty and less than ninety in the chart.
- Present student with the set of numerals: 8, 16, 17, 23, 35, 44, 51, 63, 76, 89, 94. Ask student to tell you which numerals represent an even number.
- Present student with the set of numerals: 11, 18, 28, 39, 45, 52, 61, 72, 80, 81, 96. Ask student to tell you which numerals represent an odd number.

0: Has error(s) in each task.	
1: Has error(s) in five of the six tasks.	Hesitant
2: Has error(s) in four of the six tasks.	Self-corrects
3: Has error(s) in three of the six tasks.	Confident
4: Has error(s) in two of the six tasks.	
5: Has error(s) in one of the six tasks.	
6: Has no errors.	
Other observations	

Assessment for 2.N.3 (ordinal number)

ITEM 1: Say second, third. Ask student to continue saying these kinds of number words to tenth. • Lay out 10 different kinds of objects in a line. Point to the object that is first in the line and tell student it is in the first position. Point to the object that is in the fifth position. Ask student to tell you which position it is in. • Lay out 10 different kinds of objects in a line. Point to the object that is first in the line and tell student it is in the first position. Point to the object that is in the seventh position. Ask student to tell you which position it is in. MOVE the object that was in the seventh position and place it in the fourth position. Ask student to tell you which position the object is in now. Lay out 20 different kinds of objects in a line. Point to the object that is first in the line and tell student it is in the first position. Point to the object that is in the twelfth position. Ask student to tell you which position it is in. 0: Has error in each task. 1: Has four errors in the five tasks. Hesitant 2: Has three errors in the five tasks. Self-corrects 3: Has two errors in the five tasks. Confident 4. Has one error in the five tasks. 5: Has no errors. Other observations

Assessment for 2.N.4 (represent to 100) NOT decode or sum/difference

ITEM 1:

- Provide student with ten base-10 ten-sticks and 10 units. Ask student to build/show 32.
- Provide student with ten base-10 ten-sticks and 10 units. Ask student to build/show 57.
- Provide student with ten base-10 ten-sticks and 10 units. Ask student to build/show 71.
- 0: Cannot do any of the tasks correctly.
- 1: Does one task correctly.
 Hesitant

 2: Does two tasks correctly.
 Self-corrects

 3: Does all three tasks correctly.
 Confident

Other observations

<u>ITEM 2:</u>

- Provide student with ten empty ten-frames. Ask student to build/show 38.
- Provide student with ten empty ten-frames. Ask student to build/show 65.
- Provide student with ten empty ten-frames. Ask student to build/show 83.

0: Cannot do any of the tasks correctly.	
1: Does one task correctly.	Hesitant
2: Does two tasks correctly.	Self-corrects
3: Does all three tasks correctly.	Confident

Other observations

ITEM 3:

Provide student with ten pennies, ten nickels, and ten dimes.

- Ask student to show 24 with the coins.
- Ask student to show 24 with the coins in a different way from before.
- Ask student to show 38 with the coins.
- Ask student to show 38 with the coins in a different way from before.
- Ask student to show 60 with the coins.
- Ask student to show 60 with the coins in a different way from before.
- 0: Cannot do any of the tasks correctly.

11 EM 4:

- Ask student to use tally marks to show 17.
- Ask student to use tally marks to show 36.
- Ask student to use tally marks to show 52.
- 0: Cannot do any of the tasks correctly.
- 1: Does one task correctly.
- 2: Does two tasks correctly.
 - 3: Does all three tasks correctly.

Other observations

TOTAL SCORE _____

Hesitant

Self-corrects

Confident

Assessment for 2.N.4 (represent to 100: SUM/DIFFERENCE only)

<u>ITEM 1:</u>		
Provide students with the example: using addition, 23 is $8 + 15$.		
• Ask student to write 28 as an addition of two numbers.		
• Ask student to write 47 as an addition of two numbers.		
• Ask student to write 64 as an addition of two numbers.		
• Ask student to write 83 as an addition of two numbers.		
0: Cannot do any of the tasks correctly.		
1: Does one task correctly.	Hesitant	
2: Does two tasks correctly.	Self-corrects	
3: Does three tasks correctly.	Confident	
4: Does all four tasks correctly.		
NOTE:		
DO NOT ACCEPT a result such as $27 + 1$ or $26 + 2$. If the student gives this		
type of result $(+1 \text{ or } +2)$, ask the student to write without using $+1 \text{ or } +2$.		
Other observations		

<u>ITEM 2:</u>

Provide students with the example: using subtraction, 23 is 27 - 4.

- Ask student to write 31 as a subtraction of two numbers.
- Ask student to write 47 as a subtraction of two numbers.
- Ask student to write 64 as a subtraction of two numbers.

• Ask student to write 83 as a subtraction of two numbers.	
 0: Cannot do any of the tasks correctly. 1: Does one task correctly. 2: Does two tasks correctly. 3: Does three tasks correctly. 4: Does all four tasks correctly. 	Hesitant Self-corrects Confident
NOTE:	
DO NOT ACCEPT a result such as $28 - 1$ or $28 - 2$. Allow retry.	
Other observations	

Assessment for 2.N.4 (represent to 100: DECODE only)

ITEM 1:			
Show student a card having the numerals 34, 58, 87 on it. Ask student to say the counting word			
for each numeral on the card.			
0: Has 3 errors.			
1: Has 2 errors.	Hesitant		
2: Has 1 error.	Self-corrects		
3: Has no errors.	Confident		
Other observations			
<u>ITEM 2:</u>			
Show student a card having the number words twenty-five, forty-ei	ght, seventy-nine. Ask		
student to say the counting word for each number word on the card			
0: Has 3 errors.			
1: Has 2 errors.	Hesitant		
2: Has 1 error.	Self-corrects		
3: Has no errors.	Confident		
Other observations			
<u>ITEM 3:</u>			
Show student a card having the numerals 5, 11, 17 on it. Ask student to write the number word			
for each numeral on the card.			
0: Has 3 errors.			
1: Has 2 errors.	Hesitant		
2: Has 1 error.	Self-corrects		
3: Has no errors.	Confident		

Other observations

Assessment for 2.N.5 (compare and order to 100) NOT verify re: place value

<u>ITEM 1:</u>

- Show student the list of numerals: 8, 15, 23, 17, 31, 42. Tell student there is an error in the order. Ask student to find it.
- Show student the list of numerals: 83, 57, 64, 80, 86, 95. Tell student there is an error in the order. Ask student to find it.
- Show student the list of numerals: 40, 35, 27, 15, 9, 11. Tell student there is an error in the order. Ask student to find it.
- Show student the list of numerals: 91, 76, 62, 74, 55, 52. Tell student there is an error in the order. Ask student to find it.

Hesitant

Self-corrects

Confident

- 0: Cannot find/incorrect in finding of any of the errors.
- 1: Finds one error correctly.
- 2: Finds two errors correctly.
 - 3: Finds three errors correctly.
 - 4: Finds all four errors correctly.

Other observations

ITEM 2:

- Show student the list: 9, 12, 17, 23, ____, 32, 37, 45. Tell student the numbers are in order of size. Ask student to tell you a number that could be in the blank space.
- Show student the list: 58, 59, 63, _____, 80, 84, 98. Tell student the numbers are in order of size. Ask student to tell you a number that could be in the blank space.
- Show student the list: 44, 38, ____, 29, 27, 19, 6. Tell student the numbers are in order of size. Ask student to tell you a number that could be in the blank space.
- Show student the list: 96, 93, 81, 78, ____, 60, 58. Tell student the numbers are in order of size. Ask student to tell you a number that could be in the blank space.

 0: No responses are correct.
 Hesitant

 1: One response is correct.
 Hesitant

 2: Two responses are correct.
 Self-corrects

 3: Three responses are correct.
 Confident

 4: All four responses are correct.
 Confident

Other observations

<u>ITEM 3:</u>

Show student the list of numerals: 12, 31, 43, 22, 40, 20, 9.				
Ask student to place in order of size from smallest to largest.				
0: Has 3 errors or more.				
1: Has 2 errors.	Hesitant			
2: Has 1 error.	Self-corrects			
3: Has no errors.	Confident			
Other observations				

ITEM 4:				
Show student the list of numerals: 45, 28, 31, 29, 43, 15, 7.				
Ask student to place in order of size from largest to smallest.				
0: Has 3 errors or more.				
1: Has 2 errors.	Hesitant			
2: Has 1 error.	Self-corrects			
3: Has no errors.	Confident			
Other observations				

ITEM 5:

Show student the list of numerals: 56, 75, 60, 78, 93, 84.			
Ask student to place in order of size from smallest to largest.			
0: Has 3 errors or more.			
1: Has 2 errors.	Hesitant		
2: Has 1 error.	Self-corrects		
3: Has no errors.	Confident		
Other observations			

<u>ITEM 6:</u>			
Show student the list of numerals: 83, 59, 74, 80, 93, 61.			
Ask student to place in order of size from largest to smallest.			
0: Has 3 errors or more.			
1: Has 2 errors.	Hesitant		
2: Has 1 error.	Self-corrects		
3: Has no errors.	Confident		
Other observations			

Assessment for 2.N.5 (compare & order to 100: ONLY verify re: place value)

ITEM 1: Show student the list of numerals: 12, 18, 35, 25, 43. Tell student there is an error in the order. Ask student to find it. Ask student to explain why it is an error using place value thinking for the explanation. Show student the list of numerals: 58, 64, 59, 73, 98. Tell student there is an error in the order. Ask student to find it. Ask student to explain why it is an error using place value thinking for the explanation. Show student the list of numerals: 43, 27, 38, 25, 17. Tell student there is an error in the order. Ask student to find it. Ask student to explain why it is an error using place value thinking for the explanation. Show student the list of numerals: 90, 76, 71, 59, 63. Tell student there is an error in the order. Ask student to find it. Ask student to explain why it is an error using place value thinking for the explanation. 0: Cannot find any errors. 1: Finds one error and explains it using place value. 2: Finds two errors and explains them using place value. Hesitant 3: Finds three errors and explains them using place value. Self-corrects 4: Finds four errors and explains them using place value Confident Note: Student must find AND explain correctly in order to receive a point. Other observations

Assessment for 2.N.6 (estimate to 100)

<u>ITEM 1:</u>

Provide student with 5 counters. Ask student to count them.

- Show student a pile of counters (about 20). Ask student to estimate how many counters in that pile by using the 5 counters as a way to estimate.
- Show student a pile of counters (about 40). Ask student to estimate how many counters in that pile by using the 5 counters as a way to estimate.
- Show student a pile of counters (about 60). Ask student to estimate how many counters in that pile by using the 5 counters as a way to estimate.

Note:

Student is NOT allowed to form groups of 5 in the piles. Student must mentally use 5 as a referent for estimating.

0				
0: All estimates are off by more than 3 either way.				
1: Two of the estimates are off by more than 3 either way.	Hesitant			
2: One of the estimates is off by more than 3 either way.	Self-corrects			
3: All the estimates are within 3 of the actual count.	Confident			
Other observations				

<u>ITEM 2:</u>

Provide student with 10 counters. Ask student to count them.

- Show student a pile of counters (about 30). Ask student to estimate how many counters in that pile by using the 10 counters as a way to estimate.
- Show student a pile of counters (about 60). Ask student to estimate how many counters in that pile by using the 10 counters as a way to estimate.
- Show student a pile of counters (about 80). Ask student to estimate how many counters in that pile by using the 10 counters as a way to estimate.

Note:

Student is NOT allowed to form groups of 10 in the piles. Student must mentally use 10 as a referent for estimating.

0: All estimates are off by more than 5 either way.	
1: Two of the estimates are off by more than 5 either way.	Hesitant
2: One of the estimates is off by more than 5 either way.	Self-corrects
3: All the estimates are within 5 of the actual count.	Confident
Other observations	

Assessment for 2.N.7 (place value to 100)

<u>ITEM 1:</u>			
• Show student numeral 24. Ask student to tell how many tens and ones in the number.			
• Show student numeral 55. Ask student to tell how many tens and ones in the number.			
• Show student numeral 90. Ask student to tell how many tens and ones in the number.			
0: Has none correct.			
1: Has one correct.	Hesitant		
2: Has two correct.	Self-corrects		
3: Has all three correct.	Confident		
Note:			
.5 for correct tens and .5 for correct ones (total of 1 point per task)			
Other observations			

<u>ITEM 2:</u>

- Show student numeral 24. Ask student to write/say number that has one more one in it.
- Show student numeral 47. Ask student to write/say number that has one more one in it.
- Show student numeral 69. Ask student to write/say number that has one more one in it.

	0: Has none correct.	
	1: Has one correct.	Hesitant
	2: Has two correct.	Self-corrects
	3: Has all three correct.	Confident
Other	observations	

<u>ITEM 3:</u>

- Show student numeral 35. Ask student to write/say number that has one more ten in it.
 Show student numeral 53. Ask student to write/say number that has one more ten in it.
- Show student numeral 85. Ask student to write/say number that has one more ten in it.
 O: Has none correct.

<u>ITEM 4:</u>

- Ask student to write/say number that 3 tens and 4 ones.
- Ask student to write/say number that 6 tens and 9 ones.
- Ask student to write/say number that 8 tens and ZERO ones.
- 0: Has none correct.
 Hesitant

 1: Has one correct.
 Hesitant

 2: Has two correct.
 Self-corrects

 3: Has all three correct.
 Confident

 Note:
 Confident

 .5 for correct tens and .5 for correct ones (total of 1 point per task)
 Other observations

	ITEM	5:	
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- Show student numeral 24. Ask student to write/say number that has one less one in it.
- Show student numeral 47. Ask student to write/say number that has one less one in it.
- Show student numeral 69. Ask student to write/say number that has one less one in it.

 O: Has none correct.

 1: Has one correct.

 2: Has two correct.

 3: Has all three correct.

 Other observations

ITEM 6:

- Show student numeral 35. Ask student to write/say number that has one less ten in it.
- Show student numeral 53. Ask student to write/say number that has one less ten in it.
- Show student numeral 85. Ask student to write/say number that has one less ten in it.

0: Has none correct.	
1: Has one correct.	Hesitant
2: Has two correct.	Self-corrects
3: Has all three correct.	Confident
Other observations	

<u>ITEM 7:</u>

- Provide 14 counters. Ask student to organize the counters so that it is easy to write the number for how many counters on the table.
- Provide 35 counters. Ask student to organize the counters so that it is easy to write the number for how many counters on the table.
- Provide 60 counters. Ask student to organize the counters so that it is easy to write the number for how many counters on the table.

Note:

Student MUST use place value thinking (make piles of 10s and 1s) to receive a point for a task.

- 0: Does not use place value thinking for any task.
- 1: Uses place value thinking for one task.
- 2: Uses place value thinking for two tasks.

- ____ Hesitant Self-corrects
- 3: Uses place value thinking for all three tasks.

_ Self-corrects Confident

Other observations

<u>ITEM 8:</u>

Provide student with 10 empty ten-frames.

Ask student to use the ten-frames to show 42. Ask student to explain his/her thinking.

- 0: Does not show 42 correctly and does not explain thinking.
 - 1: Shows 42 correctly but does not explain thinking re: place value.

e. Hesitant

2: Shows 42 correctly but does not clearly explain thinking re: place value. 3: Shows 42 correctly and clearly explains thinking re: place value. Self-corrects Confident

Hesitant

Self-corrects

Confident

Other observations

<u>ITEM 9:</u>

Show student card with 32 on it and card with 23 on it.

• Ask student if the two numbers are different.

If student says "not different", then STOP.

- If student says they are different, ask student to explain why they are different.
- 0: Says the numbers are NOT different.
- 1: Says different because the order of '3' and '2' are switched.

2: Explains different without being clear about place value positions.

- 3: Explains different by being clear about place value positions.
- (EG: 3 tens versus 2 tens, etc.)

Other observations

<u>ITEM 10:</u>	
Show student card with 24 on it and a card with 1 ten and 14 ones on it.	
• Ask student if the two numbers are the same or different.	
If student says "different", then STOP.	
• If student says they are not different, ask student to explain why they a	are not different.
0: Says the numbers are different.	
1: Says not different because 10 add 14 is 24.	Hesitant
2: Says not different because 1 ten and 1 ten is 2 tens OR 14 ones	Self-corrects
less 10 is 4 ones.	Confident
3: Says not different because 1 ten and 1 ten is 2 tens AND 14 ones	
less 10 is 4 ones.	
Other observations	

e not different.
Hesitant
Self-corrects
Confident

Other observations

Assessment for 2.N.8 (add/subtract zero)

<u>ITEM 1:</u>

- Ask student to give answer to 15 + 0. Ask student to explain why answer is correct.
- Ask student to give answer to 0 + 38. Ask student to explain why answer is correct.
- Ask student to give answer to 24 0. Ask student to explain why answer is correct. Note:

Explanation for + must involve put together language (in some manner). Explanation for – must involve take away language (in some manner).

 0: Cannot do any of the tasks. 1: Obtains one correct answer but cannot explain. 2: Obtains two correct answers but cannot explain. 3: Obtains three correct answers but cannot explain. 4: Obtains one correct answer(s) and explains clearly. 5: Obtains two correct answers and explains them clearly. 6: Obtains three correct answers and explains them clearly. 	Hesitant Self-corrects Confident			
Other observations				

Assessment for 2.N.9 (add to 100: ONLY meaning of +)

<u>ITEM 1:</u>	
Provide student with 30 counters.	
Ask student to show $12 + 9 = 21$ using the counters. Ask student to	explain the thinking.
0: Does not make any piles. Does not explain.	
1: Makes two piles with correct/incorrect counts but does	Hesitant
not explain by talking about putting together.	Self-corrects
2: Makes two piles with incorrect counts and explains by	Confident
talking about putting together.	
3: Makes two piles with correct counts and explains by	
talking about putting together.	
Other observations	

<u>ITEM 2:</u>

- Ask student to make up story problem for number sentence: 4 + 9 = ?.
- Ask student to make up story problem for number sentence: 8 + ? = 20.
- Ask student to make up story problem for number sentence: ? + 7 = 24.

Note:

Tell student that he/she is NOT to figure out the answer, only to make up a story problem.

0: None of the story problems match its number sentence.	
1: One of the story problems matches its number sentence.	Hesitant
2: Two of the story problems matches its number sentence.	Self-corrects
3: All three story problems matches its number sentence.	Confident
Other observations	

Assessment for 2.N.9 (subtract to 100: ONLY meaning of -)

<u>ITEM 1:</u>		
Provide student with 30 counters.		
Ask student to show $18 - 7 = 11$ using the counters. Ask student to explain the thinking.		
0: Does not make any piles. Does not explain.		
1: Makes two piles with correct/incorrect counts but does	Hesitant	
not explain by talking about taking away.	Self-corrects	
2: Makes two piles with incorrect counts and explains by	Confident	
talking about taking away.		
3: Makes two piles with correct counts and explains by		
talking about taking away.		
Other observations		

<u>ITEM 2:</u>

- Ask student to make up story problem for number sentence: 15 6 = ?.
- Ask student to make up story problem for number sentence: 23 ? = 8.
- Ask student to make up story problem for number sentence: ? 11 = 8.

Note:

Tell student that he/she is NOT to figure out the answer, only to make up a story problem.

	0: None of the story problems match its number sentence.	
	1: One of the story problems matches its number sentence.	 Hesitant
	2: Two of the story problems matches its number sentence.	Self-corrects
	3: All three story problems matches its number sentence.	Confident
Other	observations	

Assessment for 2.N.9 (add to 100): NOT meaning of +

<u>ITEM 1:</u>

Provide student with ten 10-sticks and ten units (tens and ones place value materials)

- Ask student to use the materials to obtain answer to 12 + 7.
- Ask student to use the materials to obtain answer to 25 + 8.
- Ask student to use the materials to obtain answer to 39 + 16.
 0: None of the addition tasks is correct.
- 1: One of the addition tasks is correct.
 Hesitant

 2: Two of the addition tasks are correct.
 Self-corrects

 3: All three of the addition tasks are correct.
 Confident

Other observations

<u>ITEM 2:</u>	
• Ask student to do 7 + 14 in whatever way he/she wants.	
• Ask student to do 6 + 35 in whatever way he/she wants	
• Ask student to do 17 + 16 in whatever way he/she wants.	
• Ask student to do 23 + 25 in whatever way he/she wants.	
• Ask student to do 58 + 37 in whatever way he/she wants.	
Note:	
Concrete materials are not allowed. The student can use writing materials	rials.
0: None of the addition tasks are correct.	
1: One of the addition tasks is correct.	Hesitant
2: Two of the addition tasks are correct.	Self-corrects
3: Three of the addition tasks are correct.	Confident
4: Four of the addition tasks are correct.	
5: All five of the addition tasks are correct.	
Other observations	

<u>ITEM 3:</u>

- Ask student to figure out the answer to: 5 + ? = 13, in whatever way he/she wants.
- Ask student to figure out the answer to: 17 + ? = 24, in whatever way he/she wants.
- Ask student to figure out the answer to: ? + 6 = 18, in whatever way he/she wants.
- Ask student to figure out the answer to: ? + 15 = 26, in whatever way he/she wants.

Note:

Concrete materials are not allowed. The student can use writing materials.

0: None of the tasks are correct. 1: One of the tasks is correct. 2: Two of the tasks are correct. 3: Three of the tasks are correct. 4: All four of the tasks are correct.	Hesitant Self-corrects Confident
Other observations	

ITEM 4:

• Ask student to obtain an answer to 2 + 4 + 6 + 9 in TWO different ways. Ask student to explain why the sum should be the same.

Note:

Concrete materials are not allowed. The student can use writing materials.

- 0: Student cannot obtain correct answer and cannot explain.
- 1: Student obtains correct answer in one way but cannot explain.
 - 2: Student obtains correct answer in two ways but cannot explain.

3: Student obtains correct answer in two ways and explains on basis

of put together (EG: if I put 2 in first or 4 in first, the total stays the same).

Other observations

TOTAL SCORE

Hesitant

Self-corrects

Confident

Assessment for 2.N.9 (subtract to 100): NOT meaning of -

<u>ITEM 1:</u>

Provide student with ten 10-sticks and ten units (tens and ones place value materials)

- Ask student to use the materials to obtain answer to 18 6.
- Ask student to use the materials to obtain answer to 24 7.
- Ask student to use the materials to obtain answer to 41 18.
- 0: None of the subtraction tasks is correct.Hesitant1: One of the subtraction tasks is correct.Hesitant2: Two of the subtraction tasks are correct.Self-corrects3: All three of the subtraction tasks are correct.Confident

Other observations

<u>ITEM 2:</u>	
• Ask student to do 21 - 13 in whatever way he/she wants.	
• Ask student to do 34 - 7 in whatever way he/she wants	
• Ask student to do 24 - 19 in whatever way he/she wants.	
• Ask student to do 35 - 28 in whatever way he/she wants.	
• Ask student to do 54 - 36 in whatever way he/she wants.	
Note:	
Concrete materials are not allowed. The student can use writing mate	rials.
0: None of the subtraction tasks are correct.	
1: One of the subtraction tasks is correct.	Hesitant
2: Two of the subtraction tasks are correct.	Self-corrects
3: Three of the subtraction tasks are correct.	Confident
4: Four of the subtraction tasks are correct.	
5: All five of the subtraction tasks are correct.	
Other observations	

<u>ITEM 3:</u>

- Ask student to figure out the answer to: 15 ? = 6, in whatever way he/she wants.
- Ask student to figure out the answer to: 32 ? = 12, in whatever way he/she wants.
- Ask student to figure out the answer to: ? 15 = 4, in whatever way he/she wants.
- Ask student to figure out the answer to: ? 28 = 17, in whatever way he/she wants.

Note:

Concrete materials are not allowed. The student can use writing materials.

0: None of the tasks are correct.	
1: One of the tasks is correct.	Hesitant
2: Two of the tasks are correct.	Self-corrects
3: Three of the tasks are correct.	Confident
4: All four of the tasks are correct.	
Other observations	

Assessment for 2.N.10 (mental math strategies)

ITEM 1:

- Ask student to give answer to 5 + 6 by using a mental math strategy. Ask student to explain the strategy used.
- Ask student to give answer to 6 + 8 by using a mental math strategy. Ask student to explain the strategy used.
- Ask student to give answer to 8 + 4 by using a mental math strategy. Ask student to explain the strategy used.
- Ask student to give answer to 8 + 9 by using a mental math strategy. Ask student to ٠ explain the strategy used.

Note:

DO NOT provide counters.

Mental math strategies include (but not restricted to):

- doubles (e.g., for 4 + 6, think 5 + 5)
- doubles plus one (e.g., for 4 + 5, think 4 + 4 + 1)
- doubles take away one (e.g., for 4 + 5, think 5 + 5 1)
- doubles take away one (e.g., for 4 + 5, think 4 + 4 + 2) doubles take away two (e.g., for 4 + 6, think 4 + 4 + 2) doubles take away two (e.g., for 4 + 6, think 6 + 6 2) making 10 (e.g., for 7 + 5, think 7 + 3 + 2)
- building on a known double (e.g., 6 + 6 = 12, so 6 + 7 = 12 + 1 = 13)
- addition to subtraction (e.g., for 7 3, think 3 + ? = 7)

0: Obtains correct/incorrect answers but cannot explain re: mental	
math strategy.	Hesitant
1: Obtains one correct answer and explains clearly re: mental math	Self-corrects
strategy.	Confident
2: Obtains two correct answers and explains clearly re: mental math	
strategy.	
3: Obtains three correct answers and explains clearly re: mental	
math strategy.	
4: Obtains four correct answers and explains clearly re: mental	
math strategy.	
Note:	
Give .5 points if mental math strategy explained clearly but addition is	
incorrect.	
Other observations	

<u>ITEM 2:</u>

•	Ask student to give answer to $15 + 19$, using a mental math strategy. Ask student to	
	explain the strategy used.	

- Ask student to give answer to 28 + 13, using a mental math strategy. Ask student to explain the strategy used.
- Ask student to give answer to 25 19, using a mental math strategy. Ask student to explain the strategy used.
- Ask student to give answer to 45 28, using a mental math strategy. Ask student to explain the strategy used.

Note:

DO NOT provide counters. Allow any mental math strategy that is clearly expressed and valid mathematics.

0: Obtains correct/incorrect answers but cannot explain re: mental	
math strategy.	Hesitant
1: Obtains one correct answer and explains clearly re: mental math	Self-corrects
strategy.	Confident
2: Obtains two correct answers and explains clearly re: mental math	
strategy.	
3: Obtains three correct answers and explains clearly re: mental	
math strategy.	
4: Obtains four correct answers and explains clearly re: mental	
math strategy.	
Note:	
Give .5 points if mental math strategy explained clearly but	
addition/subtraction is incorrect.	
Other observations	