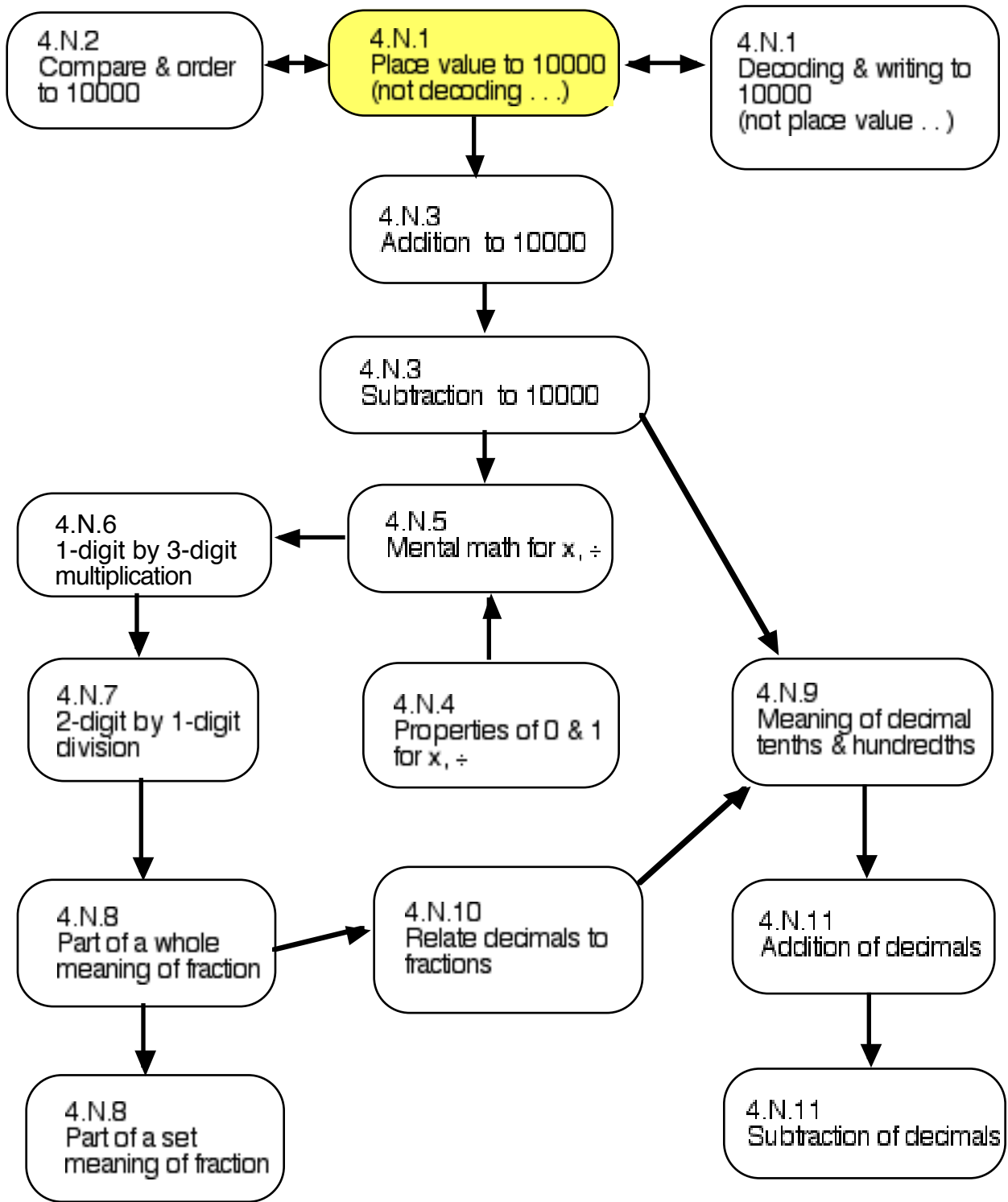


Assessment of Grade 4 Numeracy

The assessment of Grade 4 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.

<p>4.N.1. Represent and describe whole numbers to 10 000, pictorially and symbolically.</p>	<p>4.N.2. Compare and order numbers to 10 000.</p>
<p>4.N.3. Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3- and 4-digit numerals) by</p> <ul style="list-style-type: none"> • using personal strategies for adding and subtracting • estimating sums and differences <p>solving problems involving addition and subtraction</p>	<p>4.N.4. Explain the properties of 0 and 1 for multiplication, and the property of 1 for division.</p>
<p>4.N.5. Describe and apply mental mathematics strategies, such as</p> <ul style="list-style-type: none"> • skip counting from a known fact • using doubling or halving • using doubling or halving and adding or subtracting one more group • using patterns in the 9s facts • using repeated doubling <p>to determine basic multiplication facts to 9×9 and related division facts.</p>	<p>4.N.6. Demonstrate an understanding of multiplication (2- or 3-digit numerals by 1-digit numerals) to solve problems by</p> <ul style="list-style-type: none"> • using personal strategies for multiplication with and without concrete materials • using arrays to represent multiplication • connecting concrete representations to symbolic representations • estimating products
<p>4.N.7. Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by</p> <ul style="list-style-type: none"> • using personal strategies for dividing with or without concrete materials • estimating quotients • relating division to multiplication 	<p>4.N.8. Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to</p> <ul style="list-style-type: none"> • name and record fractions for the parts of a whole or a set • compare and order fractions • model and explain that for different wholes, two identical fractions may not represent the same quantity • provide examples of where fractions are used
<p>4.N.9. Describe and represent decimals (tenths and hundredths) concretely, pictorially, and symbolically.</p>	<p>4.N.10. Relate decimals to fractions (to hundredths).</p>
<p>4.N.11 Demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by</p> <ul style="list-style-type: none"> • using compatible numbers • estimating sums and differences • using mental math strategies <p>to solve problems.</p>	

Grade 4 CASH map



Summary of results

4.N.1 (Place value to 10 000: not decoding)

- 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 11 inclusive)
- High level developed knowledge (total score of 12 or more)

4.N.1 (Decoding and writing to 10 000)

- Emergent knowledge (total score of 4 or less)
- Low level developed knowledge (total score between 5 and 8 inclusive)
- Mid level developed knowledge (total score between 9 and 12 inclusive)
- High level developed knowledge (total score of 13 or more)

4.N.2 (Compare and order to 10 000)

- 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 8 inclusive)
- High level developed knowledge (total score of 9 or more)

4.N.3 (Addition to 10 000)

- Emergent knowledge (total score of 4 or less)
- Low level developed knowledge (total score between 5 and 8 inclusive)
- Mid level developed knowledge (total score between 9 and 13 inclusive)
- High level developed knowledge (total score of 14 or more)

4.N.3 (Subtraction to 10 000)

- Emergent knowledge (total score of 4 or less)
- Low level developed knowledge (total score between 5 and 9)
- Mid level developed knowledge (total score between 10 and 13 inclusive)
- High level developed knowledge (total score of 14 or more)

4.N.4 (Properties of 0 & 1 for \times , \div)

- 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 6 inclusive)
- High level developed knowledge (total score of 7 or more)

4.N.5 (Mental math for \times , \div)

- 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)

4.N.6 (1-digit by 3-digit multiplication)

- Emergent knowledge (total score of 4 or less)
- Low level developed knowledge (total score between 5 and 9 inclusive)
- Mid level developed knowledge (total score between 10 and 15 inclusive)
- High level developed knowledge (total score of 16 or more)

4.N.7 (2-digit by 1-digit division)

- _____ Emergent knowledge (total score of 5 or less)
- _____ Low level developed knowledge (total score between 6 and 11 inclusive)
- _____ Mid level developed knowledge (total score between 12 and 18 inclusive)
- _____ High level developed knowledge (total score of 19 or more)

4.N.8 (Part of a whole meaning of fraction)

- _____ Emergent knowledge (total score of 6 or less)
- _____ Low level developed knowledge (total score between 7 and 14 inclusive)
- _____ Mid level developed knowledge (total score between 15 and 22 inclusive)
- _____ High level developed knowledge (total score of 23 or more)

4.N.8 (Part of a set meaning of fraction)

- _____ 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 8 inclusive)
- _____ High level developed knowledge (total score of 9 or more)

4.N.9 (Decimal tenths & hundredths)

- _____ Emergent knowledge (total score of 4 or less)
- _____ Low level developed knowledge (total score between 5 and 12 inclusive)
- _____ Mid level developed knowledge (total score between 13 and 19 inclusive)
- _____ High level developed knowledge (total score of 20 or more)

4.N.10 (Relate decimals to fractions)

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

4.N.11 (Addition of decimals)

- _____ 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 11 inclusive)
- _____ High level developed knowledge (total score of 12 or more)

4.N.11 (Subtraction of decimals)

- _____ Emergent knowledge (total score of 4 or less)
- _____ Low level developed knowledge (total score between 5 and 8 inclusive)
- _____ Mid level developed knowledge (total score between 9 and 13 inclusive)
- _____ High level developed knowledge (total score of 14 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 4.N.1 (Place value to 10 000: not decoding . . .)

<p><u>ITEM 1:</u></p> <ul style="list-style-type: none"> • Show numeral 234. Ask student to tell the place value position of each digit. • Show numeral 7621. Ask student to tell the place value position of each digit. • Show numeral 9 600. Ask student to tell the place value position of each digit. • Show numeral 3 333. Ask student to tell the place value position of each digit. 	
<p>_____ 0: Has error(s) in each task. _____ 1: Has error(s) in three of the four tasks. _____ 2: Has error(s) in two of the four tasks. _____ 3: Has error(s) in one of the four tasks. _____ 4: Has no errors.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 2:</u></p> <p>Provide place materials (1000-cube, 100-flat, 10-stick, 1-unit).</p> <ul style="list-style-type: none"> • Show numeral 217. Ask student to use the PV materials to represent the numeral. • Show numeral 5 127. Ask student to use the PV materials to represent the numeral. • Show numeral 4 030. Ask student to use the PV materials to represent the numeral. 	
<p>_____ 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. _____ 3: Has no errors.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 3:</u></p> <ul style="list-style-type: none"> • Show numeral 456. Ask student to use expanded notation to represent the numeral (expect $400 + 50 + 6$). • Show numeral 8 397. Ask student to use expanded notation to represent the numeral (expect $8\ 000 + 300 + 90 + 7$). • Show numeral 6 004. Ask student to use expanded notation to represent the numeral (expect $6\ 000 + 0 + 0 + 4$ OR $6000 + 4$). 	
<p>_____ 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. _____ 3: Has no errors.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

ITEM 4:

- Show $700 + 20 + 8$. Ask student to write the numeral represented by the sum. (expect 728).
- Show $5000 + 300 + 8$. Ask student to write the numeral represented by the sum. (expect 5308).
- Show $9000 + 50 + 2$. Ask student to write the numeral represented by the sum. (expect 9052).

<input type="checkbox"/> 0: Has error(s) in each task.	<input type="checkbox"/> Hesitant
<input type="checkbox"/> 1: Has error(s) in two of the three tasks.	<input type="checkbox"/> Self-corrects
<input type="checkbox"/> 2: Has error(s) in one of the three tasks.	<input type="checkbox"/> Confident
<input type="checkbox"/> 3: Has no errors.	

Other observations _____

TOTAL SCORE _____

Assessment for 4.N.1 (Decoding and writing to 10 000)

<p>ITEM 1:</p> <ul style="list-style-type: none"> • Show numeral 573. Ask student to say the numeral using words. • Show numeral 3 856. Ask student to say the numeral using words. • Show numeral 4 800. Ask student to say the numeral using words. • Show numeral 8 035. Ask student to say the numeral using words. • Show numeral 9 207. Ask student to say the numeral using words. 	
<p>_____ 0: Has error(s) in each task. _____ 1: Has error(s) in four of the five tasks. _____ 2: Has error(s) in three of the five tasks. _____ 3: Has error(s) in two of the five tasks. _____ 4: Has error(s) in one of the five tasks. _____ 5: Has no errors.</p> <p>Note: Deduct .5 if student uses 'and' (e.g. five hundred AND seventy-three instead of five hundred seventy-three)</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p>ITEM 2:</p> <ul style="list-style-type: none"> • Show numeral 625. Ask student to write the numeral using words. • Show numeral 4 397. Ask student to write the numeral using words. • Show numeral 7 300. Ask student to write the numeral using words. • Show numeral 5 028. Ask student to write the numeral using words. • Show numeral 8 109. Ask student to write the numeral using words. 	
<p>_____ 0: Has error(s) in each task. _____ 1: Has error(s) in four of the five tasks. _____ 2: Has error(s) in three of the five tasks. _____ 3: Has error(s) in two of the five tasks. _____ 4: Has error(s) in one of the five tasks. _____ 5: Has no errors.</p> <p>Note: Deduct .5 if student uses 'and' (e.g. five hundred AND seventy-three instead of five hundred seventy-three)</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

ITEM 3:

- Say six hundred forty-five. Ask student to write numeral for the words (expect: 645).
- Say three thousand seven hundred sixty-two. Ask student to write numeral for the words (expect: 3762 OR 3 762).
- Say five thousand nine hundred. Ask student to write numeral for the words (expect: 5900 OR 5 900).
- Say eight thousand twenty-seven. Ask student to write numeral for the words (expect: 8027 OR 8 027).
- Say six thousand thirty. Ask student to write numeral for the words (expect: 6030 OR 6 030).

<p>_____ 0: Has error(s) in each task. _____ 1: Has error(s) in four of the five tasks. _____ 2: Has error(s) in three of the five tasks. _____ 3: Has error(s) in two of the five tasks. _____ 4: Has error(s) in one of the five tasks. _____ 5: Has no errors.</p> <p>Note: Deduct .5 if student uses 'comma' (e.g. 3,762)</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
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Other observations

TOTAL SCORE _____

Assessment for 4.N.2 (Compare and order to 10 000)

ITEM 1:	
<ul style="list-style-type: none"> • Show student the list of numerals: 242, 450, 873, 16, 195, 3231. Tell student there are errors in the order from smallest to largest. Ask student to find and fix the errors. • Show student the list of numerals: 203, 3097, 2311, 1308. Tell student there are errors in the order from smallest to largest. Ask student to find and fix the errors. • Show student the list of numerals: 3670, 8705, 2771, 7888, 6832, 7946. Tell student there are errors in the order from smallest to largest. Ask student to find and fix the errors. • Ask student to explain the thinking in finding and fixing the errors in last task (the one above). [Expect an explanation based on place value.] 	
<p>_____ 0: Cannot do any ordering task correctly..</p> <p>_____ 1: Does one ordering task correctly.</p> <p>_____ 2: Does two ordering tasks correctly.</p> <p>_____ 3: Does all three ordering tasks correctly.</p> <p>_____ 4: Explains finding and fixing for last task satisfactorily.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
Other observations	

ITEM 2:	
<ul style="list-style-type: none"> • Show student the list: 356, 1092, _____, 1217, 3293. 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: 1275, ____, 3284, 4395, 5425. 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: 8876, ____, 5654, 3621, 3529. Tell student the numbers are in order of size. Ask student to tell you a number that could be in the blank space. 	
<p>_____ 0: No responses are correct.</p> <p>_____ 1: One response is correct.</p> <p>_____ 2: Two responses are correct.</p> <p>_____ 3: All three responses are correct.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
Other observations	

ITEM 3:

Show student the four digits: 3, 4, 8, and 0.

- Ask student to make four different 4-digit numbers, using the four digits shown.
- Ask student to place the numbers in order of size from largest to smallest.

_____ 0: Cannot do any of the tasks correctly or makes only one number

_____ 1: Makes 2 numbers and places them in correct order.

_____ 2: Makes 3 numbers and places them in correct order.

_____ 3: Makes 4 numbers and places them in correct order.

_____ Hesitant

_____ Self-corrects

_____ Confident

Note:

0348 is legitimate.

Other observations

TOTAL SCORE _____

Assessment for 4.N.3 (Addition to 10 000)

<u>ITEM 1:</u> <ul style="list-style-type: none">• Ask student to do: $134 + 251$.• Ask student to do: $1304 + 451$.• Ask student to explain how he/she kept track of digits that have the same place value position when doing $1304 + 451$.	
<input type="checkbox"/> 0: None of the addition tasks is correct. <input type="checkbox"/> 1: One of the addition tasks is correct. <input type="checkbox"/> 2: Two of the addition tasks are correct. <input type="checkbox"/> 3: Both addition tasks are correct and explains thinking for keeping track of digits appropriately.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 2:</u> <ul style="list-style-type: none">• Ask student to do: $2054 + 3002$.• Ask student to do: $4051 + 1003$.• Ask student to explain how he/she kept track of digits that have the same place value position when doing $4051 + 1003$.	
<input type="checkbox"/> 0: None of the addition tasks is correct. <input type="checkbox"/> 1: One of the addition tasks is correct. <input type="checkbox"/> 2: Two of the addition tasks are correct. <input type="checkbox"/> 3: Both addition tasks are correct and explains thinking for keeping track of digits appropriately.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 3:</u> <ul style="list-style-type: none">• Ask student to do: $158 + 3276$.• Ask student to do: $4387 + 5009$.• Ask student to do: $2879 + 4789$.	
<input type="checkbox"/> 0: None of the addition tasks are correct. <input type="checkbox"/> 1: One of the addition tasks is correct. <input type="checkbox"/> 2: Two of the addition tasks are correct. <input type="checkbox"/> 3: All three of the addition tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<p>ITEM 4:</p> <ul style="list-style-type: none"> • Ask student to make up a story problem for $1354 + 2649$. • Ask student to obtain answer to story problem. • Ask student to explain how answer was obtained. 	
<p>_____ 0: Cannot make up/makes up in appropriate story problem. Does not obtain correct answer to $1354 + 2649$. Cannot explain how answer obtained.</p> <p>_____ 1: Makes up appropriate story problem. Obtains correct answer to $1354 + 2649$. Cannot explain how answer obtained.</p> <p>_____ 2: Makes up appropriate story problem. Obtains incorrect answer to $1354 + 2649$ (makes error). Can explain how answer obtained.</p> <p>_____ 3: Makes up appropriate story problem. Obtains correct answer to $1354 + 2649$. Can explain how answer obtained.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

<p>ITEM 5:</p> <ul style="list-style-type: none"> • Ask student to estimate answer to: $3086 + 2855$. Ask student to explain how estimate made. • Ask student to estimate answer to: $758 + 1359 + 861$. Ask student to explain how estimate made. • Ask student to estimate answer to: $3758 + 954 + 4068$. Ask student to explain how estimate made. 	
<p>_____ 0: None of the estimation tasks is correct.</p> <p>_____ 1: One of the estimation tasks is correct.</p> <p>_____ 2: Two of the estimation tasks are correct.</p> <p>_____ 3: All three of the estimation tasks are correct.</p> <p>Note: Give .5 extra point for EACH satisfactory explanation of how estimate was done.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

TOTAL SCORE _____

Assessment for 4.N.3 (Subtraction to 10 000)

<u>ITEM 1:</u> <ul style="list-style-type: none"> • Ask student to do: $589 - 234$. • Ask student to do: $1376 - 251$. • Ask student to explain how he/she kept track of digits that have the same place value position when doing $1376 - 251$. 	
<input type="checkbox"/> 0: None of the subtraction tasks is correct. <input type="checkbox"/> 1: One of the subtraction tasks is correct. <input type="checkbox"/> 2: Two of the subtraction tasks are correct. <input type="checkbox"/> 3: Both subtraction tasks are correct and explains thinking for keeping track of digits appropriately.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 2:</u> <ul style="list-style-type: none"> • Ask student to do: $3894 - 3142$. • Ask student to do: $7051 - 5030$. • Ask student to explain how he/she kept track of digits that have the same place value position when doing $7051 - 5030$. 	
<input type="checkbox"/> 0: None of the subtraction tasks is correct. <input type="checkbox"/> 1: One of the subtraction tasks is correct. <input type="checkbox"/> 2: Two of the subtraction tasks are correct. <input type="checkbox"/> 3: Both subtraction tasks are correct and explains thinking for keeping track of digits appropriately.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 3:</u> <ul style="list-style-type: none"> • Ask student to do: $7231 - 167$. • Ask student to do: $4305 - 2309$. • Ask student to do: $7013 - 4236$. • Ask student to do: $8000 - 3781$. 	
<input type="checkbox"/> 0: None of the subtraction tasks are correct. <input type="checkbox"/> 1: One of the subtraction tasks is correct. <input type="checkbox"/> 2: Two of the subtraction tasks are correct. <input type="checkbox"/> 3: Three of the subtraction tasks are correct. <input type="checkbox"/> 4: All four of the subtraction tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 4:</u> <ul style="list-style-type: none"> • Ask student to make up a story problem for 6354 - 2049. • Ask student to obtain answer to story problem. • Ask student to explain how answer was obtained. 	
<p>_____ 0: Cannot make up/makes up in appropriate story problem. Does not obtain correct answer to 6354 - 2049. Cannot explain how answer obtained.</p> <p>_____ 1: Makes up appropriate story problem. Obtains correct answer to 6354 - 2049. Cannot explain how answer obtained.</p> <p>_____ 2: Makes up appropriate story problem. Obtains incorrect answer to 6354 - 2049 (makes error). Can explain how answer obtained.</p> <p>_____ 3: Makes up appropriate story problem. Obtains correct answer to 6354 - 2049. Can explain how answer obtained.</p>	<p>___ Hesitant</p> <p>___ Self-corrects</p> <p>___ Confident</p>
Other observations	

<u>ITEM 5:</u> <ul style="list-style-type: none"> • Ask student to estimate answer to: 9086 - 2855. Ask student to explain how estimate made. • Ask student to estimate answer to: 8758 - 1359 - 861. Ask student to explain how estimate made. • Ask student to estimate answer to: 9286 - 954 - 2038. Ask student to explain how estimate made. 	
<p>_____ 0: None of the estimation tasks is correct.</p> <p>_____ 1: One of the estimation tasks is correct.</p> <p>_____ 2: Two of the estimation tasks are correct.</p> <p>_____ 3: All three of the estimation tasks are correct.</p> <p>Note: Give .5 extra point for EACH satisfactory explanation of how estimate was done.</p>	<p>___ Hesitant</p> <p>___ Self-corrects</p> <p>___ Confident</p>
Other observations	

TOTAL SCORE _____

Assessment for 4.N.4 (Properties of 0 & 1 for \times , \div)

<u>ITEM 1:</u> <ul style="list-style-type: none"> • Ask student to do $15 \div 1$. • Ask student to do 23×1. • Ask student to do 87×0. 	
_____ 0: None of the tasks is correct. _____ 1: One of the tasks is correct. _____ 2: Two of the tasks are correct. _____ 3: All three of the tasks are correct.	_____ Hesitant _____ Self-corrects _____ Confident
Other observations	

<u>ITEM 2:</u> <ul style="list-style-type: none"> • Ask student to do $385 \div 1$. • Ask student to explain the answer. 	
_____ 0: Answer incorrect. _____ 1: Answer correct but cannot explain satisfactorily (based on division as splitting up into equal groups). _____ 2: Answer correct and can explain satisfactorily.	_____ Hesitant _____ Self-corrects _____ Confident
Other observations	

<u>ITEM 3:</u> <ul style="list-style-type: none"> • Ask student to do 1×380. • Ask student to explain the answer. 	
_____ 0: Answer incorrect. _____ 1: Answer correct but cannot explain satisfactorily (based on groups of). _____ 2: Answer correct and can explain satisfactorily.	_____ Hesitant _____ Self-corrects _____ Confident
Other observations	

<u>ITEM 4:</u> <ul style="list-style-type: none"> • Ask student to do 0×453. • Ask student to explain the answer. 	
_____ 0: Answer incorrect. _____ 1: Answer correct but cannot explain satisfactorily (based on groups of). _____ 2: Answer correct and can explain satisfactorily.	_____ Hesitant _____ Self-corrects _____ Confident
Other observations	

TOTAL SCORE _____

Assessment for 4.N.5 (Mental math for \times, \div)

<u>ITEM 1:</u>	
<ul style="list-style-type: none"> • Ask student to use a doubling strategy to do 4×6 (expect: 2×3 is 6, so 4×6 is double 6) • Ask student to use a doubling strategy to do 6×3 (expect: 3×3 is 9, so 6×3 is double 9) • Ask student to use a doubling strategy to do 8×5 (expect: 4×5 is 20, so 8×5 is double 20) 	
<input type="checkbox"/> 0: None of the tasks is correct. <input type="checkbox"/> 1: One of the tasks is correct. <input type="checkbox"/> 2: Two of the tasks are correct. <input type="checkbox"/> 3: All three of the tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 2:</u>	
<ul style="list-style-type: none"> • Ask student to use a doubling and add one more group strategy to do 3×4 (expect: 2×4 is 8, and 8 add 4 is 12) • Ask student to use a doubling and add one more group strategy to do 3×6 (expect: 2×6 is 12, and 12 add 6 is 18) • Ask student to use a doubling and add one more group strategy to do 3×7 (expect: 2×7 is 14, and 14 add 7 is 21) 	
<input type="checkbox"/> 0: None of the tasks is correct. <input type="checkbox"/> 1: One of the tasks is correct. <input type="checkbox"/> 2: Two of the tasks are correct. <input type="checkbox"/> 3: All three of the tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 3:</u>	
<ul style="list-style-type: none"> • Ask student to use a multiplying by ten strategy to do 9×2 (expect 10×2 is 20 and 20 subtract 2 is 18) • Ask student to use a multiplying by ten strategy to do 9×5 (expect 10×5 is 50 and 50 subtract 5 is 45) • Ask student to use a multiplying by ten strategy to do 9×7 (expect 10×7 is 70 and 70 subtract 7 is 63) 	
<input type="checkbox"/> 0: None of the tasks is correct. <input type="checkbox"/> 1: One of the tasks is correct. <input type="checkbox"/> 2: Two of the tasks are correct. <input type="checkbox"/> 3: All three of the tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

ITEM 4:

- Ask student to use a halving strategy to do 2×5 (expect 4×5 is 20, 2×5 is half of 20 or 10)
- Ask student to use a halving strategy to do 3×4 (expect 6×4 is 24, 3×4 is half of 24 or 12)
- Ask student to use a halving strategy to do 4×6 (expect 8×6 is 48, 4×6 is half of 48 or 24)

<input type="checkbox"/> 0: None of the tasks is correct. <input type="checkbox"/> 1: One of the tasks is correct. <input type="checkbox"/> 2: Two of the tasks are correct. <input type="checkbox"/> 3: All three of the tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

ITEM 5:

- Ask student how $12 \div 4$ can be thought of in a multiplication way (expect: $? \times 4 = 12$ or $4 \times ? = 12$)
- Ask student how 8×5 can be thought of in a division way (expect: $? \div 5 = 8$ or $? \div 8 = 5$)
- Ask student how $45 \div 9$ can be thought of in a multiplication way (expect: $? \times 9 = 45$ or $9 \times ? = 45$)

<input type="checkbox"/> 0: None of the tasks is correct. <input type="checkbox"/> 1: One of the tasks is correct. <input type="checkbox"/> 2: Two of the tasks are correct. <input type="checkbox"/> 3: All three of the tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

TOTAL SCORE _____

Assessment for 4.N.6 (1-digit by 3-digit multiplication)

<p><u>ITEM 1:</u> Provide student with base-10 materials (units, sticks, and flats).</p> <ul style="list-style-type: none"> • Ask student to represent 2×16 with the materials (expect: TWO groups of 1 stick and 6 units). • Ask student to represent 3×45 with the materials (expect: THREE groups of 4 sticks and 5 units). • Ask student to represent 2×234 with the materials (expect: TWO groups of 2 flats, 3 sticks and 4 units). 	
<p>_____ 0: None of the tasks is correct. _____ 1: One of the tasks is correct. _____ 2: Two of the tasks are correct. _____ 3: All three of the tasks are correct.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 2:</u></p> <ul style="list-style-type: none"> • Ask student to write 3×24 by breaking up the 24 (expect $3 \times 20 + 3 \times 4$). • Ask student to write 4×96 by breaking up the 96 (expect $4 \times 90 + 4 \times 6$). • Ask student to write 5×378 by breaking up the 378 (expect $5 \times 300 + 5 \times 70 + 5 \times 8$). 	
<p>_____ 0: None of the tasks is correct. _____ 1: One of the tasks is correct. _____ 2: Two of the tasks are correct. _____ 3: All three of the tasks are correct.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 3:</u></p> <ul style="list-style-type: none"> • Ask student to estimate answer to 2×27. • Ask student to estimate answer to 3×29. • Ask student to estimate answer to 4×231. 	
<p>_____ 0: None of the tasks is correct. _____ 1: One of the tasks is correct. _____ 2: Two of the tasks are correct. _____ 3: All three of the tasks are correct.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

ITEM 4:

- Ask student to use a rectangle/array diagram to show 4×35 where 35 is broken up. (expect a 4×30 and a 4×5 section)
- Ask student to use a rectangle/array diagram to show 6×98 where 98 is broken up. (expect a 6×90 and a 6×8 section)
- Ask student to use a rectangle/array diagram to show 7×256 where 256 is broken up. (expect a 7×200 section, a 7×50 and a 7×6 section)

<input type="checkbox"/> 0: None of the tasks is correct.	<input type="checkbox"/> Hesitant
<input type="checkbox"/> 1: One of the tasks is correct.	<input type="checkbox"/> Self-corrects
<input type="checkbox"/> 2: Two of the tasks are correct.	<input type="checkbox"/> Confident
<input type="checkbox"/> 3: All three of the tasks are correct.	

Other observations

ITEM 5:

- Ask student to solve the problem: *George has 5 boxes of toys. In each box are 38 toys. How many toys does George have in all in the boxes?*

<input type="checkbox"/> 0: Does not attempt the problem.	<input type="checkbox"/> Hesitant
<input type="checkbox"/> 1: Attempts the problem, uses repeated addition but makes an error in calculation.	<input type="checkbox"/> Self-corrects
<input type="checkbox"/> 2: Attempts the problem and uses repeated addition correctly.	<input type="checkbox"/> Confident
<input type="checkbox"/> 3: Attempts the problem, uses multiplication but makes an error in calculation.	
<input type="checkbox"/> 4: Attempts the problem, uses multiplication correctly.	

Other observations

ITEM 6:

- Ask to make up a story problem that involves multiplication of a 1-digit by 3-digit number.
- Ask student to solve his/her problem.
- Ask student to explain the thinking involved in doing the multiplication.

<input type="checkbox"/> 0: None of the tasks is correct.	<input type="checkbox"/> Hesitant
<input type="checkbox"/> 1: One of the tasks is correct.	<input type="checkbox"/> Self-corrects
<input type="checkbox"/> 2: Two of the tasks are correct.	<input type="checkbox"/> Confident
<input type="checkbox"/> 3: All three of the tasks are correct.	

Other observations

TOTAL SCORE _____

Assessment for 4.N.7 (2-digit by 1-digit division)

<p><u>ITEM 1:</u> Provide student with base-10 materials (units, sticks, and flats).</p> <ul style="list-style-type: none"> • Ask student to do $12 \div 2$ with the materials. • Ask student to do $25 \div 5$ with the materials. • Ask student to do $43 \div 4$ with the materials. • Ask student to do $69 \div 8$ with the materials. 	
<p>_____ 0: None of the tasks is 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.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 2:</u> <ul style="list-style-type: none"> • Ask student to estimate answer to $41 \div 2$. • Ask student to estimate answer to $58 \div 3$. • Ask student to estimate answer to $73 \div 5$. </p>	
<p>_____ 0: None of the tasks is correct. _____ 1: One of the tasks is correct. _____ 2: Two of the tasks are correct. _____ 3: All three of the tasks are correct.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 3:</u> <ul style="list-style-type: none"> • Ask student to solve the problem: <i>George has 44 toys. He puts them into boxes with 4 toys per box How many boxes does George need to store his toys?</i> </p>	
<p>_____ 0: Does not attempt the problem. _____ 1: Attempts the problem, uses repeated subtraction but makes an error in calculation. _____ 2: Attempts the problem and uses repeated subtraction correctly. _____ 3: Attempts the problem, uses division/multiplication but makes an error in calculation. _____ 4: Attempts the problem, uses division/multiplication correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

ITEM 4:	
<ul style="list-style-type: none"> Ask student to solve the problem: George has 75 candies. <i>He wants to give away all of his candies equally to 5 friends. How many candies will each friend get?</i> 	
<input type="checkbox"/> 0: Does not attempt the problem. <input type="checkbox"/> 1: Attempts the problem, uses repeated subtraction but makes an error in calculation. <input type="checkbox"/> 2: Attempts the problem and uses repeated subtraction correctly. <input type="checkbox"/> 3: Attempts the problem, uses division/multiplication but makes an error in calculation. <input type="checkbox"/> 4: Attempts the problem, uses division/multiplication correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

ITEM 5:	
<ul style="list-style-type: none"> Ask student to solve the problem: George has 83 candies. <i>He wants to give away all of his candies equally to 8 friends. How many candies will each friend get? Does George have any candies left over? If so, how many?</i> 	
<input type="checkbox"/> 0: Does not attempt the problem. <input type="checkbox"/> 1: Attempts the problem, uses repeated subtraction but makes an error in calculation. <input type="checkbox"/> 2: Attempts the problem and uses repeated subtraction correctly. <input type="checkbox"/> 3: Attempts the problem, uses division/multiplication but makes an error in calculation. <input type="checkbox"/> 4: Attempts the problem, uses division/multiplication correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

ITEM 6:	
<ul style="list-style-type: none"> Ask to make up a story problem that involves division of a 2-digit by 1-digit number. Ask student to solve his/her problem. Ask student to explain the thinking involved in doing the division. 	
<input type="checkbox"/> 0: None of the tasks is correct. <input type="checkbox"/> 1: One of the tasks is correct. <input type="checkbox"/> 2: Two of the tasks are correct. <input type="checkbox"/> 3: All three of the tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

TOTAL SCORE _____

Assessment for 4.N.8 (Part of a whole meaning of fraction)

<p><u>ITEM 1:</u></p> <ul style="list-style-type: none"> • Ask student to provide an example from every day life that shows the part of a whole meaning of fraction. • Ask student to write the fraction for the example in a mathematical way. • Ask student to show the fraction using a diagram. 	
<p>_____ 0: None of the tasks done correctly. _____ 1: Does one task correctly. _____ 2: Does two tasks correctly. _____ 3: Does all three tasks correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 2:</u></p> <p>Show student a rectangular model for $\frac{3}{8}$.</p> <ul style="list-style-type: none"> • Ask student to tell what fraction is shaded. (expect $\frac{3}{8}$) • Ask student to tell what fraction is unshaded. (expect $\frac{5}{8}$) • Ask student to make a pizza (circular model) to show $\frac{6}{8}$. 	
<p>_____ 0: None of the tasks done correctly. _____ 1: One task done correctly. _____ 2: Two tasks done correctly. _____ 3: Three tasks done correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 3:</u></p> <p>Show student the written fractions $\frac{1}{5}$ and $\frac{1}{6}$.</p> <ul style="list-style-type: none"> • Ask student to tell which fraction is greater. • Ask student to explain the thinking. <p>Show student the written fractions $\frac{3}{4}$, $\frac{3}{7}$, and $\frac{3}{2}$.</p> <ul style="list-style-type: none"> • Ask student to put the fractions in order from smallest to largest. • Ask student to explain the thinking. 	
<p>_____ 0: None of the tasks done correctly. _____ 1: One task done correctly. _____ 2: Two tasks done correctly. _____ 3: Three tasks done correctly. _____ 4: Four tasks done correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

ITEM 4:

Show student the written fractions $\frac{4}{5}$ and $\frac{3}{5}$.

- Ask student to tell which fraction is greater.
- Ask student to explain the thinking.

Show student the written fractions $\frac{4}{7}$, $\frac{1}{7}$, $\frac{2}{7}$.

- Ask student to put the fractions in order from smallest to largest.
- Ask student to explain the thinking.

<input type="checkbox"/> 0: None of the tasks done correctly. <input type="checkbox"/> 1: One task done correctly. <input type="checkbox"/> 2: Two tasks done correctly. <input type="checkbox"/> 3: Three tasks done correctly. <input type="checkbox"/> 4: Four tasks done correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

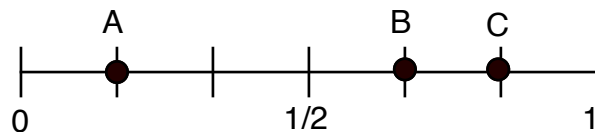
ITEM 5:

- Ask student to tell if $\frac{2}{3}$ is closer to 0, $\frac{1}{2}$, or 1. (expect closer to $\frac{1}{2}$)
- Ask student to tell if $\frac{1}{5}$ is closer to 0, $\frac{1}{2}$, or 1. (expect closer to 0)
- Ask student to tell if $\frac{5}{8}$ is closer to 0, $\frac{1}{2}$, or 1. (expect closer to $\frac{1}{2}$)

<input type="checkbox"/> 0: None of the tasks done correctly. <input type="checkbox"/> 1: One task done correctly. <input type="checkbox"/> 2: Two tasks done correctly. <input type="checkbox"/> 3: Three tasks done correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

ITEM 6:

Show student the number line.



Ask student to name fraction for point A.

Ask student to name fraction for point B.

Ask student to name fraction for point C.

<input type="checkbox"/> 0: None of the tasks done correctly. <input type="checkbox"/> 1: One task done correctly. <input type="checkbox"/> 2: Two tasks done correctly. <input type="checkbox"/> 3: Three tasks done correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<p>ITEM 7: Show student the number line. Show student written fractions: $\frac{3}{8}$, $\frac{1}{5}$, $\frac{3}{4}$</p>	
<ul style="list-style-type: none"> Ask student to locate each fraction on the number line. 	
<p>_____ 0: None of the fractions located correctly.</p> <p>_____ 1: One of the fractions located correctly.</p> <p>_____ 2: Two of the fractions located correctly.</p> <p>_____ 3: All three fractions located correctly.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

<p>ITEM 8:</p> <ul style="list-style-type: none"> Ask if $\frac{1}{2}$ of a large pizza is the same as $\frac{1}{2}$ of a small pizza (expect: no). Ask student to explain the thinking. Ask if $\frac{2}{3}$ of a large milkshake is the same as $\frac{2}{3}$ of a small milkshake (expect: no). Ask student to explain the thinking. 	
<p>_____ 0: None of the tasks done correctly.</p> <p>_____ 1: One task done correctly.</p> <p>_____ 2: Two tasks done correctly.</p> <p>_____ 3: Three tasks done correctly.</p> <p>_____ 4: All four tasks done correctly.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

TOTAL SCORE _____

Assessment for 4.N.8 (Part of a set meaning of fraction)

<p><u>ITEM 1:</u></p> <ul style="list-style-type: none"> • Ask student to provide an example from every day life that shows the part of a set meaning of fraction. • Ask student to write the fraction for the example in a mathematical way. • Ask student to show the fraction using a diagram. 	
<p>_____ 0: None of the tasks done correctly. _____ 1: Does one task correctly. _____ 2: Does two tasks correctly. _____ 3: Does all three tasks correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 2:</u></p> <p>Show student 12 counters for which 5 are red and the rest are black.</p> <ul style="list-style-type: none"> • Ask student to tell what fraction is red. (expect 5/12) • Ask student to tell what fraction is not red. (expect 7/12) • Ask student to use the counters to show 3/10. 	
<p>_____ 0: None of the tasks done correctly. _____ 1: One task done correctly. _____ 2: Two tasks done correctly. _____ 3: Three tasks done correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 3:</u></p> <ul style="list-style-type: none"> • Ask if $\frac{1}{2}$ of 20 candies is the same as $\frac{1}{2}$ of 12 candies (expect: no). • Ask student to explain the thinking. • Ask if $\frac{3}{4}$ of 8 marbles is the same as $\frac{3}{4}$ of 16 marbles. (expect: no). • Ask student to explain the thinking. 	
<p>_____ 0: None of the tasks done correctly. _____ 1: One task done correctly. _____ 2: Two tasks done correctly. _____ 3: Three tasks done correctly. _____ 4: All four tasks done correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

TOTAL SCORE _____

Assessment for 4.N.9 (Meaning of decimal tenths & hundredths)

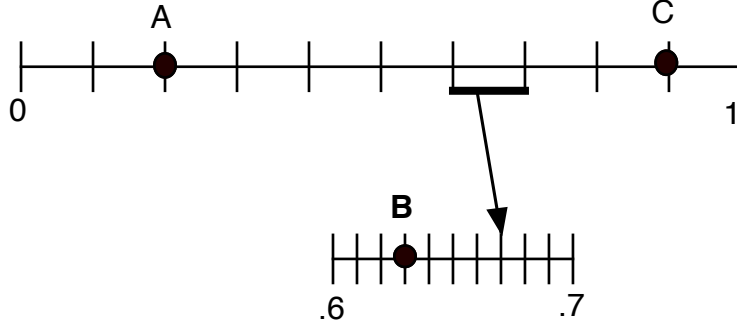
<p><u>ITEM 1:</u> Show student ten-strip with 3 squares shaded. Tell student the entire ten-strip is the whole/one.</p> <ul style="list-style-type: none"> • Ask student to represent the shaded region in decimal form (expect: .3) <p>Show student a hundred grid with 10 squares shaded. Tell student that the entire hundred grid is the one (the whole).</p> <ul style="list-style-type: none"> • Ask student to represent the shaded region in decimal form (expect: .6 or .10) <p>Show student a hundred grid with 23 squares shaded. Tell student that the entire hundred grid is the one (the whole).</p> <ul style="list-style-type: none"> • Ask student to represent the shaded region in decimal form (expect: .23) 	
<p>_____ 0: None of the tasks done correctly. _____ 1: Does one task correctly. _____ 2: Does two tasks correctly. _____ 3: Does all three tasks correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 2:</u> Provide student with a hundred grid.</p> <ul style="list-style-type: none"> • Ask student to show .17 on the hundred grid (expect: 17 squares shaded). • Ask student to show .2 on the hundred grid (Expect: 20 squares shaded) • Ask student to show .61 on the hundred grid (expect: 61 squares shaded). 	
<p>_____ 0: None of the tasks done correctly. _____ 1: Does one task correctly. _____ 2: Does two tasks correctly. _____ 3: Does all three tasks correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 3:</u> Provide student with dimes and pennies.</p> <ul style="list-style-type: none"> • Ask student to show .17 in a place value way using the dimes and pennies (expect: 1 dime and 7 pennies – 17 pennies is not acceptable) • Ask student to show .05 in a place value way using the dimes and pennies (expect: 5 pennies) • Ask student to show .3 in a place value way using the dimes and pennies (expect: 3 dimes – 30 pennies or some other combination of 30 cents is not acceptable) <p>Show student 4 dimes and 2 pennies.</p> <ul style="list-style-type: none"> • Ask student to write decimal name for the money. (expect: .42 or \$0.42 or 0.42) 	
<p>_____ 0: None of the tasks done correctly. _____ 1: Does one task correctly. _____ 2: Does two tasks correctly. _____ 3: Does three tasks correctly. _____ 4: Does all four tasks correctly.</p>	<p>_____ Hesitant _____ Self-corrects _____ Confident</p>
<p>Other observations</p>	

ITEM 4:

Show number line section from 0 to 1 unit that has a magnified section from .6 to .7.



- Ask student to write decimal name for point A. (expect: .2)
- Ask student to write decimal name for point B. (expect .63)
- Ask student to write decimal name for point C. (expect .9)

<input type="checkbox"/> 0: None of the tasks done correctly.	<input type="checkbox"/> Hesitant
<input type="checkbox"/> 1: Does one task correctly.	<input type="checkbox"/> Self-corrects
<input type="checkbox"/> 2: Does two tasks correctly.	<input type="checkbox"/> Confident
<input type="checkbox"/> 3: Does all three tasks correctly.	
Other observations	

ITEM 5:

- Ask student to tell place value name for the digit '2' in the number 0.25 (expect: tenths)
- Ask student to tell place value name for the digit '3' in the number 1.03 (expect: hundredths)
- Ask student to tell place value name for the digit '5' in the number 3.54 (expect: tenths)

<input type="checkbox"/> 0: None of the tasks done correctly.	<input type="checkbox"/> Hesitant
<input type="checkbox"/> 1: Does one task correctly.	<input type="checkbox"/> Self-corrects
<input type="checkbox"/> 2: Does two tasks correctly.	<input type="checkbox"/> Confident
<input type="checkbox"/> 3: Does all three tasks correctly.	
Other observations	

ITEM 6:

- Ask student to tell place value name for each '6' in the number: 6.66

<input type="checkbox"/> 0: None of the names are correct.	<input type="checkbox"/> Hesitant
<input type="checkbox"/> 1: One name is correct.	<input type="checkbox"/> Self-corrects
<input type="checkbox"/> 2: Two names are correct.	<input type="checkbox"/> Confident
<input type="checkbox"/> 3: All three names are correct.	
Other observations	

ITEM 7:

- Ask student if .4 is the same value as .40.
- Ask student to explain the thinking.
- Ask student if .70 is the same value as .7.
- Ask student to explain the thinking.

_____ 0: None of the tasks done 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

Other observations

TOTAL SCORE _____

Assessment for 4.N.10 (Relate decimals to fractions)

<u>ITEM 1:</u> <ul style="list-style-type: none"> • Ask student to write fraction name for .6 • Ask student to write fraction name for .13 • Ask student to write fraction name for .06 • Ask student to write fraction name for 0.95 	
<input type="checkbox"/> 0: None of the tasks done correctly. <input type="checkbox"/> 1: Does one task correctly. <input type="checkbox"/> 2: Does two tasks correctly. <input type="checkbox"/> 3: Does three tasks correctly. <input type="checkbox"/> 4: Does all four tasks correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 2:</u> <ul style="list-style-type: none"> • Ask student to write fraction name for .6 • Ask student to write fraction name for .13 • Ask student to write fraction name for .06 • Ask student to write fraction name for 0.95 	
<input type="checkbox"/> 0: None of the tasks done correctly. <input type="checkbox"/> 1: Does one task correctly. <input type="checkbox"/> 2: Does two tasks correctly. <input type="checkbox"/> 3: Does three tasks correctly. <input type="checkbox"/> 4: Does all four tasks correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 3:</u> Show student ten strip with 3 squares shaded. Tell them the entire strip is the whole/unit. <ul style="list-style-type: none"> • Ask student to write decimal name for shaded squares. • Ask student to write fraction name for shaded squares. • Ask student to say name for shaded squares. 	
<input type="checkbox"/> 0: None of the tasks done correctly. <input type="checkbox"/> 1: Does one task correctly. <input type="checkbox"/> 2: Does two tasks correctly. <input type="checkbox"/> 3: Does three tasks correctly.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

ITEM 4:

Show student hundred with 12 squares shaded. Tell them the entire grid is the whole/unit.

- Ask student to write decimal name for shaded squares.
- Ask student to write fraction name for shaded squares.
- Ask student to say name for shaded squares.

_____ 0: None of the tasks done correctly.

_____ 1: Does one task correctly.

_____ 2: Does two tasks correctly.

_____ 3: Does three tasks correctly.

_____ Hesitant

_____ Self-corrects

_____ Confident

Other observations

TOTAL SCORE _____

Assessment for 4.N.11 (Addition of decimals)

<u>ITEM 1:</u> <ul style="list-style-type: none"> • Ask student to do: $.4 + .3$ • Ask student to do: $.8 + .5$ • Ask student to do $.5 + .13$ 	
<input type="checkbox"/> 0: None of the addition tasks is correct. <input type="checkbox"/> 1: One of the addition tasks is correct. <input type="checkbox"/> 2: Two of the addition tasks are correct. <input type="checkbox"/> 3: Three addition tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 2:</u> <ul style="list-style-type: none"> • Ask student to do: $.12 + .45$. • Ask student to do: $.12 + .27$ • Ask student to do $.18 + .26$ 	
<input type="checkbox"/> 0: None of the addition tasks is correct. <input type="checkbox"/> 1: One of the addition tasks is correct. <input type="checkbox"/> 2: Two of the addition tasks are correct. <input type="checkbox"/> 3: Three addition tasks are correct.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<u>ITEM 3:</u> <ul style="list-style-type: none"> • Ask student to do estimate a whole number answer for $2.8 + 4.5$ • Ask student to do estimate a whole number answer for $6.7 + 2.15$ • Ask student to do estimate a whole number answer for $7.24 + 6.03$ • Ask student to do estimate a whole number answer for $3.67 + 12.11$ • Ask student to explain thinking for estimating answer to $3.67 + 12.11$ 	
<input type="checkbox"/> 0: None of the addition tasks are correct. <input type="checkbox"/> 1: One of the addition tasks is correct. <input type="checkbox"/> 2: Two of the addition tasks are correct. <input type="checkbox"/> 3: Three of the addition tasks are correct. <input type="checkbox"/> 4: Four of the addition tasks are correct. <input type="checkbox"/> 5: Four of the addition tasks are correct and explains thinking for $3.67 + 12.11$ appropriately.	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
Other observations	

<p>ITEM 4:</p> <ul style="list-style-type: none"> • Ask student to make up a story problem for $1.23 + 4.50$. • Ask student to obtain answer to story problem. 	
<p>_____ 0: Cannot make up/makes up in appropriate story problem. Does not obtain correct answer to $1.23 + 4.50$</p> <p>_____ 1: Makes up appropriate story problem. Obtains incorrect answer to $1.23 + 4.50$ (makes error)</p> <p>_____ 3: Makes up appropriate story problem. Obtains correct answer to $1.23 + 4.50$.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

TOTAL SCORE _____

Assessment for 4.N.11 (Subtraction of decimals)

<p><u>ITEM 1:</u></p> <ul style="list-style-type: none"> • Ask student to do: $.8 - .5$ • Ask student to do: $.17 - .12$ • Ask student to do $.23 - .08$ • Ask student to do: $.45 - .27$ 	
<p>_____ 0: None of the subtraction tasks is correct.</p> <p>_____ 1: One of the subtraction tasks is correct.</p> <p>_____ 2: Two of the subtraction tasks are correct.</p> <p>_____ 3: Three subtraction tasks are correct.</p> <p>_____ 4: Four subtraction tasks are correct.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 2:</u></p> <ul style="list-style-type: none"> • Ask student to do estimate a whole number answer for $3.8 - .5$ • Ask student to do estimate a whole number answer for $9.7 - 4.85$ • Ask student to do estimate a whole number answer for $15.67 - 3.12$ • Ask student to explain thinking for estimating answer to $15.67 - 3.12$ 	
<p>_____ 0: None of the subtraction tasks are correct.</p> <p>_____ 1: One of the subtraction tasks is correct.</p> <p>_____ 2: Two of the addition tasks are correct.</p> <p>_____ 3: Three of the subtraction tasks are correct.</p> <p>_____ 4: Four of the subtraction tasks are correct and explains thinking for $15.67 - 3.12$ appropriately.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

<p><u>ITEM 3:</u></p> <ul style="list-style-type: none"> • Ask student to make up a story problem for $12.56 - 3.08$. • Ask student to obtain answer to story problem. 	
<p>_____ 0: Cannot make up/makes up in appropriate story problem. Does not obtain correct answer to $12.56 - 3.08$</p> <p>_____ 1: Makes up appropriate story problem. Obtains incorrect answer to $12.56 - 3.08$ (makes error)</p> <p>_____ 3: Makes up appropriate story problem. Obtains correct answer to $12.56 - 3.08$.</p>	<p>_____ Hesitant</p> <p>_____ Self-corrects</p> <p>_____ Confident</p>
<p>Other observations</p>	

ITEM 4:

NOTE:

Provide fake/real money to students. Allow them to use it.

- Ask student to tell how much change should be given to George if he spends \$4.50 shopping and gives store clerk \$5.
- Ask student to tell how much change should be given to George if he spends \$7.75 shopping and gives store clerk \$10.
- Ask student to tell how much change should be given to George if he spends \$8.30 shopping and gives store clerk \$20.
- Ask student to tell how much change should be given to George if he spends \$12.38 shopping and gives store clerk \$20.
- Ask student to tell how much change should be given to George if he spends \$12.45 shopping and gives store clerk \$20 and 5 cents.

<input type="checkbox"/> 0: None of the tasks done correctly. <input type="checkbox"/> 1: Does one task correctly. <input type="checkbox"/> 2: Does two tasks correctly. <input type="checkbox"/> 3: Does three tasks correctly. <input type="checkbox"/> 4: Does four tasks correctly. <input type="checkbox"/> 5: Does all five tasks correctly	<input type="checkbox"/> Hesitant <input type="checkbox"/> Self-corrects <input type="checkbox"/> Confident
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Other observations

TOTAL SCORE _____