

Schedule for Early Number Assessment (SENA 3) Recording Sheet

Student Name: Faraz

Date of Interview: _____

Class: Year 6 - Carramar

1st _____

Age: _____ D.O.B: _____

2nd _____

| Task | Possible response & comments | Level |
|--|--|--|
| Aspect 4 Place Value Task 1 <i>I had 15 pencils and I was given another 7.</i> <div>22</div> <i>How many do I have now?</i> Task 2 <div>20 + 19 = 39</div> <i>What is the difference between 20 and 39? Quick</i> <div>19</div> <p>If student does not understand the word 'difference' ask, <i>How many numbers are between 20 and 39</i></p> <p>An example could be given as a prompt 'the difference between 5 and 7 is 2'</p> | Student: <ul style="list-style-type: none"> Counts from one using fingers to keep track Counts on from 15 using fingers to keep track Counts on from 15 to solve the task Uses a known fact ($15 + 5 = 20 + 2 = 22$) OTHER RESPONSES <i>15 7 + 5 12 + 10</i> <ul style="list-style-type: none"> Does not associate difference with subtraction, may say '39 is larger than 20' or '20 is an even number, 39 is odd' Counts back from 39 to 20 by ones Says '19, 20 plus 10 and 9 more make 39' Says '39 minus 20 is 19, minus 1 more is 18 so the answer is 21' OTHER RESPONSES | Place Value Not at Place Value Level 0 - Ten as a count Level 0 - Ten as a count Level 1 - Ten as a unit Need more information No level need more information Level 0 - Ten as a count Level 1 - Ten as a unit Level 2 - Tens and ones |
| Note: this task also links to Aspect 2: Early Arithmetic Strategies | | |
| Aspect 1 Numeral identification Tasks 3 - 10 Show student each numeral card and ask them to say what number it is <div> <div>2462 1001 15 257 1010</div> <div>950 199 10 000 9070</div> </div> | Student: <ul style="list-style-type: none"> Knows all numbers 1 – 100 (SENA 1 & 2) Knows all numbers 1 – 1000 Knows numbers greater than 1000 | Numeral Id Level 3 - (0 – 100) Level 4 - (0 – 1000) Level 5 - (> 1000) |
| Aspect 1 Counting by 10s and 100s Tasks 11 – 13 <i>Start from 62 and count forwards by 5s. I'll tell you when to stop.</i> <div>62, 67, 72, 77,97, 102 stop</div> Display this card <div>9990</div> <i>Start from 9990 and count backwards by 100s. I'll tell you when to stop.</i> <div>9990, 9890, 9790,9590 stop</div> Display this card <div>2085</div> <i>Start from 2085 and count forwards by 10s. I'll tell you when to stop.</i> <div>2085, 2095, 2105,2125 stop</div> | Student: (Task 11) <ul style="list-style-type: none"> Counts forwards by 5s off the decade to 97 Counts forwards by 5s off the decade to 102 <i>- started counting by 1's once he realised pattern - moved quickly.</i> (Task 12) <ul style="list-style-type: none"> Counts backwards by 100s from 9990 (Task 13) <ul style="list-style-type: none"> Counts on by 10s on or off the decade to 2085 OTHER RESPONSES | Counting by 10s and 100s Level 2 Level 2 Level 3 Level 3 |

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| Aspect 3 Pattern and number structure Number properties Task 14 <i>I can make 24 by multiplying 6 and 4.</i> <i>What are two other numbers that I can multiply to equal 24?</i> <i>Can you tell me another two?</i> <div style="border: 1px solid black; padding: 2px; display: inline-block;">24 x 0</div> 24 x 1 12 x 2 | Student: <ul style="list-style-type: none"> Unable to provide a correct answer Answers one other possible combination (8 x 3, 12 x 2, 24 x 1) Answers more than one other combination OTHER RESPONSES | Pattern and number structure Not at Level 5 Level 5 - Number properties Level 5 - Number properties |
| Note: this task also links to Aspect 5: Multiplication and division. | | |

Teacher note: To complete the following *Place Value* tasks, students need to at least be at Level 3 - *Counting-on-and-back* in Aspect 2 – Early Arithmetic Strategies. If student is not at this level, go to Task 20 - Fractions.

| | | |
|---|---|---|
| Aspect 4 Place Value Task 15 Display this card <div style="border: 1px solid black; padding: 5px; display: inline-block;">39 + 45</div> 84 <i>What is the answer to this?</i> <i>How did you work that out?</i> <i>overuse partitioning</i> 9+5=14 14+40=54 54+30=84 <i>Needs efficient strategies</i> | Student: <ul style="list-style-type: none"> Counts from one Counts on from 39 by ones using fingers to keep track Counts on from 45 by ones using fingers to keep track Mentally duplicates written algorithm Adds tens then units (39, 49, 59, 69, 79, 80, 81, 82, 83, 84) Uses split strategy: 30 and 40 is 70; 9 and 5 is 14; 70 + 14 = 84 Uses bridging strategy: 39 + 1 = 40 plus (45-1) 44 = 84 Uses compensation strategy: 40 + 45 = 85 - 1 Other mental strategy OTHER RESPONSES <ul style="list-style-type: none"> The student cannot explain what the '3' represents The student explains that the '3' represents '30' | Place Value Level 0 - Ten as a count Level 0 - Ten as a count Level 0 - Ten as a count Need more information Level 2 - Tens and ones Level 2 - Tens and ones Level 2 - Tens and ones Level 2 - Tens and ones Level 2 - Tens and ones (This provides teacher with extra information about the student's understanding) |
|---|---|---|

Note: If student says 'I added the 3 and the 4' then ask student:

What does the 3 represent?

(Does the student understand that the '3' represents '30'?)

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|---|--|--|
| Aspect 4 Place Value Task 16 Display this card <div style="border: 1px solid black; padding: 5px; display: inline-block;">150 + 160</div> <i>inefficient strategies</i> What is the answer to this? <i>290</i> How did you work that out? $5 + 6 = 9$ $100 + 100 = 200 + 90$ Note: If student says 'I added the 1 and the 1' then ask student: What does the 1 represent? (Does the student understand that the '1' represents '100'?) | Student: <ul style="list-style-type: none"> Counts on from 150 by tens to 310 Mentally duplicates written algorithm Adds hundreds then the tens (150, 250, 270, 280, 290, 300, 310) Uses split strategy: 100 plus 100 is 200; 50 and 60 is 110; 200 + 110 = 310 Adds 15 and 16 = 31 and then adds a zero = 310 Doubles 150 to make 300 and then adds the 10 = 310 Other mental strategy OTHER RESPONSES <ul style="list-style-type: none"> The student cannot explain what the '1' represents The student explains that the '1' represents '100' | Place Value Level 2 - Tens and ones Need more information Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones (This provides teacher with extra information about the student's understanding) |
| Aspect 4 Place Value Task 17 Display this card <div style="border: 1px solid black; padding: 5px; display: inline-block;">120 - 37</div> <i>33 NO</i> What is 120 minus 37? How did you work it out? <i>83</i> <i>Needs paper</i> <i>Unable to use mental strategies for subtraction</i> $\begin{array}{r} 120 \\ - 37 \\ \hline \end{array}$ | Student: <ul style="list-style-type: none"> Attempts to count backwards by ones Counts on from 37 by tens and ones using fingers as markers Counts down from 120 by tens and ones using fingers as markers Mentally duplicates written algorithm Starts at 37 and counts on using tens and units (37, 47, 57, 67, 77, 87, 97, 107, 117, 118, 119, 120 so the answer is 83) Uses split strategy: 120 minus 30 is 90; 90 minus 7 is 83 Uses split strategy: 120 minus 20 is 100; 100 minus 17 is 83 Other mental strategy <i>No mental strategy</i> OTHER RESPONSES | Place Value Level 0 - Ten as a count Level 1 - Ten as a unit Level 1 - Ten as a unit Need more information Level 2 - Tens and ones Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones |

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Schedule for Early Number Assessment (SENA 3) Recording Sheet

Student Name: FARAZ

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| Task | Possible response & comments | Level |
|--|--|--|
| Aspect 4 Place Value (decimals) Task 18 Display these cards. Read each decimal to the student. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">0.9</div> <div style="margin-left: 10px;">9 tenths</div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">0.85</div> <div style="margin-left: 10px;"></div> </div> <p>Which decimal is larger?</p> <p>How do you know? First 0.85</p> <p>Self corrects after talking through</p> | Student: <ul style="list-style-type: none"> Incorrectly answer 0.85 is larger than 0.9 <ul style="list-style-type: none"> 'because 85 is larger than 9' Correctly identifies 0.9 is larger than 0.85 <ul style="list-style-type: none"> 'because 90 is larger than 85' - Student compares the decimal as whole numbers 'because 0.9 is 9 tenths and 0.85 is 8 tenths and 5 hundredths or 85 hundredths' <p>OTHER RESPONSES</p> | Place Value Not at Level 4 Level 4 - Decimal place value Level 4 - Decimal place value |
| Aspect 4 Place Value (decimals) Task 19 Display this card <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">0.65 x 10</div> <div style="margin-left: 10px;">6.5</div> </div> <p>What is the answer to this?</p> <p>How did you work it out?</p> <p>Provide students with paper to assist in solving this task.</p> <p>10 x 6 = 60</p> <p>0.650</p> <p>• Cant explain</p> <p>• whole number view of decimals</p> | Student: No operational ability <ul style="list-style-type: none"> Cannot give an answer Says 0.650 Correctly answers 6.5 - but cant explain Says "I moved the decimal point" Says "I am making the number ten times larger" Explains that in 0.65 the '6' is in the tenths place and 65 tenths becomes 6.5 Simplifies decimal to get answer e.g. 0.6 x 10 is 6 so it's 6.5 Makes reference to the positional value of digits (6 ones and 5 tenths) <p>OTHER RESPONSES</p> | Not at Level 4 Not at Level 4 Level 4 - Decimal place value Need more information Level 5 - System PV Level 5 - System PV Level 5 - System PV Level 5 - System PV |

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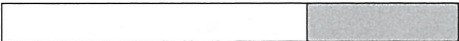
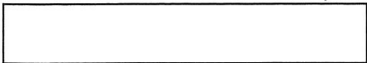

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|---|--|---|
| Aspect 6 Fraction units Task 20 Provide student with a strip of paper  <i>Can you fold this paper into quarters?</i> <i>Can you show me how much I would get if you gave me one quarter?</i> ✓ (ensure students open it back out again) May need to prompt student to show you which part is one quarter Extension question: If I fold the paper in half again, what fraction would it make? (eighths) | Student: <ul style="list-style-type: none"> Attempts to fold the paper in quarters but does not pay attention to aligning the edges Correctly folds strip into quarters by first halving and then halving again Correctly identifies one quarter Traces around one quarter of the strip OTHER RESPONSES | Fraction units Level 0 – Emergent partitioning Level - 1 Halving Level - 1 Halving Level - 1 Halving |
| Aspect 6 Fraction units Task 21 Provide student with a strip that looks like this (one-third shaded)  <i>What fraction of the whole strip of paper is shaded?</i> <i>How did you/ can you work it out?</i> $\frac{1}{3}$ (Students can fold the strip) ✓ | Student: <ul style="list-style-type: none"> Identifies the shaded part as one half because there are 2 parts, or as one quarter Correctly identifies the shaded part as one-third Student folds the strip into equal thirds using the shaded part as a guide to iterate the unit OTHER RESPONSES | Fraction units Not at Level 2 Level 2 - Equal partitions Level 2 - Equal partitions |
| Aspect 6 Fraction units Task 22 Provide students with a strip of paper  And another smaller strip (one-fifth of the original strip)  <i>What fraction of the longer strip is this?</i> $\frac{1}{5}$ | Student: <ul style="list-style-type: none"> Student places the smaller strip on the larger strip but is unable to verify the total parts Student correctly iterates the smaller fifth along the strip to show there are five equal parts and identifies the smaller strip as one fifth of the longer strip OTHER RESPONSES | Fraction units Level 2 - Equal partitions Level 2 - Equal partitions |

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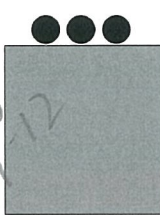
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| Aspect 5 Multiplication and division Task 23 Display this image to the student  <i>The dots are in equal rows. Some dots are hidden. There are 12 dots in the array altogether.</i> <i>How many rows are there? (Including the ones that are hidden)</i> <i>How do you know?</i> | Student: <ul style="list-style-type: none"> Counts only the visible dots, says 1 row Counts all the dots, including hidden dots, by ones and then identifies 4 rows Starts with three and counts in multiples of 3 Skip counts by three to 12 and answers '4 rows' (may use fingers to keep track of groups as they count) Says $12 \div 3 = 4$ so there are 4 equal rows OTHER RESPONSES | Multiplication and division Level 1 - Forming equal groups Level 3 - Figurative units Level 4 - Repeated abstract units Level 4 - Repeated abstract units Level 5 - Multiplication and division as operations |
| Aspect 5 Multiplication and division Task 24 Display this card <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $5 \times 2 = \square \times 5$ </div> Point to the answer box when asking: <i>Five times two is the same as what times five?</i> Ask: How did you work that out? Task 25 Display this card <div style="border: 1px solid black; padding: 5px; display: inline-block;"> $48 \div 6 =$ </div> <i>What is the answer to this?</i> Note: Teacher can ask: How did you work it out? <div style="margin-top: 10px;"> $6 \times 6 = 36$ $6 \times 7 = 42$ $6 \times 8 = 48$ </div> | Student: <ul style="list-style-type: none"> Says '10' Correctly answers '2' x 5 Note: Teacher can ask: How do you know? OTHER RESPONSES <ul style="list-style-type: none"> Says $48 - 6 = 42$ Says $6 + 6 + 6 + 6 + 6 + 6 + 6 + 6$ (may use fingers as markers) so the answer is 8 Says 6, 12, 18, 24, 30, 36, 42, 48 (may use fingers as markers) so, the answer is 8 Uses repeated doubling: 6, 12, 24, 48 Says $6 \times 8 = 48$ so, $48 \div 6 = 8$ (inverse operation) Correctly answers '8' but cannot explain why (Need more information) OTHER RESPONSES | Multiplication and division Not at Level 4 Level 5 - Multiplication and division operations Not at Level 5 Level 4 - Repeated abstract units Level 4 - Repeated abstract units Level 4 - Repeated abstract units Level 5 - Multiplication and division operations Level 5 - Multiplication and division operations |

Teacher note: If student cannot complete Tasks 24 and 25, go to Task 27 - Aspect 7

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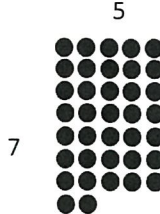
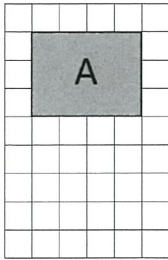
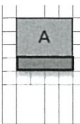
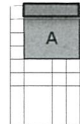
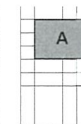

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| Aspect 5 Multiplication and division Task 26 <i>If I divided 37 by five, would it divide equally or would I have a remainder?</i> <i>How did you work it out?</i> <i>How many are left over?</i> Provide student with paper and a pencil. <i>2 remainder</i> <i>Draw an array to show your answer.</i> Note: Does the student know that the remainder is the start of a new row? <i>Does NOT know what an array is.</i> | Student: <ul style="list-style-type: none"> No answer Says $5 + 5 + 5 + 5 + 5 + 5 + 5 + 2$ (may use fingers as markers) Says 5, 10, 15, 20, 25, 30, 35, 36, 37 (may use fingers as markers) Says $7 \times 5 = 35$ plus 2 more is 37 Says $7 + 7 + 7 + 7 + 7 + 2$ (may use fingers as markers) Says 7, 14, 21, 28, 35 (may use fingers as markers) Correctly draws an array <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>This shows $37 \div 5$</p> </div> <div style="text-align: center;">  <p>This shows $37 \div 7$</p> </div> </div> <p>OTHER RESPONSES</p> | Multiplication and division Level 4 - Repeated abstract units Level 4 - Repeated abstract units Level 5 - Multiplication and division operation Level 4 - Repeated abstract units Level 5 - Multiplication and division operation <i>*Almost one row out</i> |
| Aspect 7 Unit structure of length, area and volume Task 27 Provide students with this image. <i>What is the area of rectangle A?</i>  <p><i>How can you check your answer?</i> <i>(provide student with a pen)</i></p> <i>Now, make this shape have an area of 16 squares.</i> <i>12</i> <i>Adding by 1's</i> <i>-drew by 1's.</i> | Student: <ul style="list-style-type: none"> Student finds the perimeter of the rectangle, not the area Correctly answers 12 units by counting the hidden squares <ul style="list-style-type: none"> May count by ones Uses outer grid to identify 3 rows of 4 <div style="display: flex; justify-content: space-around; align-items: center;">     </div> <ul style="list-style-type: none"> Adds another 4 squares but not as an equal row Creates an additional equal row Recreates the whole area of 16 squares (e.g. 4×4 or 8×2) <p>OTHER RESPONSES</p> | Unit structure of length, area and volume Level 5 - Iterates the unit (length) Level 6 - Composite area Level 5 Iterates the unit Level 6 - Composite area Level 6 - Composite area |
| <p>Note: this task also links to Aspect 5: Multiplication and division.</p> | | |

→ Make 2×8

