

Schedule for Early Number Assessment (SENA 4) Recording Sheet

Student Name: _____

Date of Interview: _____

Class: _____

1st _____

Age: _____ D.O.B: _____

2nd _____

Task	Possible response & comments	Level
<p>Aspect 4 Place Value Task 1 Display this card</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">261</div> </div> <p><i>How many tens are in two hundred and sixty one?</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Cannot answer the question Says 6 tens (positional/ face value) <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc;"> <p>Students need to treat ten as a flexible countable unit. For e.g. that 200 can be seen as 2 hundreds, 20 tens or 200 ones. Students need to understand the Place value system is based on powers of ten.</p> </div>	<p>Place Value</p> <p>Not at Level 5 Level 5 - System PV Level 5 - System PV</p>
<p>Aspect 4 Place Value Task 2 Display these cards in a line</p> <div style="display: flex; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">120</div> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">120</div> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">180</div> </div> <p><i>How would you find the total of these numbers?</i></p> <p>If student states as an algorithm or needs paper ask</p> <p><i>What happens if you don't have a piece of paper?</i> <i>Can you work it out in your head?</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Adds the 100s first to make 300, then adds the 20 and 80 to make 100 then adds on the 20 to make 420 Doubles the 120 to make 240 adds on the remaining 180 Adds the 120 to 180 to make 300, then adds <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc;"> <p>Students need to look for patterns and use flexible strategies for addition for example adding doubles, or, building on their knowledge of part-whole combinations to 10 and 20 when re-grouping numbers. Students need to be able to solve tasks like this mentally before being introduced to any form of written algorithm.</p> </div>	<p>Place Value</p> <p>Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones Level 3 - Hundreds, tens and ones</p> <p>Need more information</p>
<p>Aspect 4 Place Value (decimals) Task 3 Display these cards</p> <div style="display: flex; flex-wrap: wrap; gap: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">0.45</div> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">0.8</div> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">0.34</div> <div style="border: 1px solid black; padding: 5px; width: 60px; text-align: center; font-weight: bold;">0.5</div> </div> <p><i>Look at these decimals.</i> <i>Can you arrange them from smallest to largest?</i></p> <p><i>Can you tell me between which two whole numbers these decimals lie?</i></p> <p>Teacher can reword question, e.g. <i>If I drew a number line, between which two numbers would these decimals sit?</i></p> <p>Teacher can draw number line to assist students.</p>	<p>Student:</p> <ul style="list-style-type: none"> Is unable to place decimals in correct order Incorrectly places decimals seeing them as whole numbers e.g. 0.5, 0.8, 0.34, 0.45 Places decimals in correct order (0.34, 0.45, 0.5, 0.8) but cannot state which two whole numbers they lie between Places decimals in correct order and can state that they lie between 0 and 1 <p>OTHER RESPONSES</p> <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc;"> <p>Students may have a whole number understanding of decimals, for these students, linking decimals to measurement may assist them in seeing decimals as fractional parts of whole numbers.</p> </div>	<p>Place Value</p> <p>Not at Level 4 Not at Level 4 Level 4 - Decimal place value Level 4 - Decimal place value</p>



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<p>Aspect 4 Place Value (decimals) Task 4 Give student this sheet:</p> <div data-bbox="108 398 523 562" style="border: 1px solid black; padding: 10px; text-align: center;"> </div> <p>Teacher points to the '2' <i>What is the value of this digit?</i></p> <p><i>If I multiplied this number by 20, what would the answer be? Why?</i> Provide student with pen</p> <p>Teacher may ask further prompting questions if student is having difficulty e.g.</p> <p><i>If we just multiplied the 3 by 20, what would the answer be? So the answer will be close to 60...</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Is unable to state the place value of the 2 Says its value is '2' Says its value is 'point 2' Correctly states its value as 'tenths column' or '2 tenths' or 'one fifth' <p>OTHER RESPONSES</p> <ul style="list-style-type: none"> Is unable to multiply the decimal by a whole number Attempts to multiply the decimal with errors e.g. by 2 to get 6.42, by 10 twice, places the decimals point or a 'zero' in the incorrect place Correctly multiplies the decimal by 20 to get 64.2 <p>OTHER RESPONSES</p>	<p>Place Value</p> <p>Not at Level 4 Not at Level 4 Not at Level 4 Level 4 - Decimal place value</p> <p>Not at Level 4</p> <p>Level 4 – Decimal place value</p> <p>Level 5 - System PV</p>
<p>Aspect 5 Multiplication and division Task 5 Display this card</p> <div data-bbox="226 1368 491 1431" style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>16 x 9</p> </div> <p><i>What is the answer to this?</i> <i>How did you work that out?</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Cannot complete the task Adds 16 and 9 to get 25 Correctly multiplies the 16 x 10 = 160 but subtracts 9 instead of 16 and gets 151 Correctly multiplies the 16 x 10 = 160 and subtracts 16 to get 144 <div data-bbox="571 1671 1158 1921" style="border: 1px solid black; padding: 5px; background-color: #ffffcc;"> <p>Students need to use multiplicative thinking (moving on from repeated addition). Students need the capacity to work flexibly with numbers, seeing the 16 as ten and 6 to assist in multiplying familiar numbers, or seeing nine as close to 10, to make the multiplication easier.</p> </div>	<p>Multiplication and division</p> <p>Not at Level 4 Not at Level 4</p> <p>Level 5 - Multiplication and division as operations</p> <p>Level 5 - Multiplication and division as operations</p> <p>Level 5 - Multiplication and division as operations</p>



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<p>Aspect 5 Multiplication and division Task 6 <i>What three numbers could you multiply to get an answer of 24?</i> </p> <p>Note to teacher: They can use the same number twice</p> <p>If students provide only 2 numbers, repeat the original question</p>	<p>Student:</p> <ul style="list-style-type: none"> Cannot complete task Provides number combinations that add to 24 e.g. 12 + 12 Provides factors of 24 e.g. 6, 8, 3... but not a set that equal 24 Provides only 2 numbers e.g. 2 x 12 Correctly states three numbers e.g. 2, 2, 6 or 2, 3, 4 or 3, 1, 8 or 2, 12, 1 <div style="border: 1px solid black; background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p>Students need to develop flexible strategies for multiplication and division. For example they need learning experiences in using their knowledge of multiples and factors to answer volume questions.</p> </div>	<p>Multiplication and division</p> <p>Not at Level 4</p> <p>Level 4 - Repeated abstract units</p> <p>Level 4 - Repeated abstract units</p> <p>Level 5 - Multiplication and division operations</p> <p>Level 5 - Multiplication and division operations</p>
Links to Aspect 3: Level 7 Number properties		
<p>Aspect 5 Multiplication and division Task 7 There are 36 students in a class. <i>How many students would be at each table if I had 6 tables?</i> <i>How did you work that out?</i></p> <p><i>How many students would be at each table if I had 9 tables?</i> <i>How did you know that?</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Cannot complete the task Uses repeated addition to solve task, e.g. 6, 12, 18, 25, 30, 36... 6 students Uses division to work out 6 Uses inverse operation of multiples/ 'times tables' to answer $6 \times \quad = 36$ <p>OTHER RESPONSES</p> <ul style="list-style-type: none"> Cannot complete the task Uses division to work out 4 Uses repeated addition to solve task, e.g. 9, 18, 27, 36...4 students Uses inverse operation of multiples/ 'times tables' to answer $9 \times \underline{\quad} = 36$ <p>OTHER RESPONSES</p>	<p>Multiplication and division</p> <p>Not at Level 4</p> <p>Level 4 - Repeated abstract units</p> <p>Level 5 - Multiplication and division operations</p> <p>Level 5 - Multiplication and division operations</p> <p>Not at Level 4</p> <p>Level 4 - Repeated abstract units</p> <p>Level 4 - Repeated abstract units</p> <p>Level 5 - Multiplication and division operations</p>



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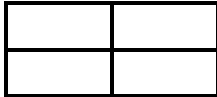
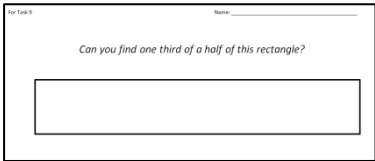
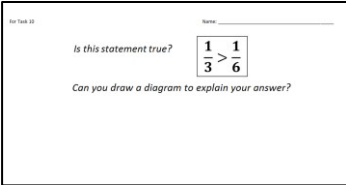

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<p>Aspect 6 Fraction units Task 8</p>  <p>Provide student with the small rectangle and a blank piece of paper</p>  <p>Here is a piece of chocolate.</p> <p>Use it to draw a piece of chocolate that is four-thirds the size of this chocolate?</p>	<p>Student:</p> <ul style="list-style-type: none"> Cannot complete task Incorrectly draws a rectangle three-quarters the size, or draws three-quarters on the piece of chocolate (re-ask the question) Incorrectly draws four rectangles, may shade three quarters  <ul style="list-style-type: none"> Correctly draws four-thirds by adding an <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc;"> <p>Students need to be able to see the relationship between the part and the whole. Students need to be able to re-create the next whole accurately to then divide into parts.</p> </div>	<p>Fraction units</p> <p>Not at Level 3</p> <p>Not at Level 3</p> <p>Not at Level 3</p> <p>Level 3 - Reforms the whole</p>
<p>Aspect 6 Fraction units Task 9</p> <p>Provide student with question sheet</p>  <p>Can you find one-third of a half of this rectangle?</p>	<p>Student:</p> <ul style="list-style-type: none"> Cannot complete the task Can halve the strip but is unable to make thirds of the half (sixths) Divides the strip into thirds Halves the strip and creates thirds of the half but is unable to identify one-sixth Divides the strip into sixths and correctly identifies one-sixth <p>OTHER RESPONSES</p>	<p>Fraction units</p> <p>Not at Level 3</p> <p>Level 1 - Halving</p> <p>Level 2 – Equal partitions</p> <p>Level 2 – Equal partitions</p> <p>Level 4 - Multiplicative partitioning</p>
<p>Aspect 6 Fraction units Task 10</p> <p>Provide student with question sheet</p>   <p>Is this statement true? (Read it to student: <i>one-third is greater than one-sixth</i>)</p> <p>Can you draw a diagram to explain your answer?</p>	<p>Student:</p> <ul style="list-style-type: none"> Incorrectly states that it is false, says one-sixths is larger Correctly says that the statement is true but is unable to draw a diagram to explain why Correctly says the statement is true and is able to use a diagram to explain why, however the <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc;"> <p>Students may be able to complete the procedure related with this task, however many students are unable to draw what it looks like with accuracy. Students often do not depict the sixths as half the size of the third, only paying attention to the number of parts e.g. 3 parts for thirds, 6 parts for sixths with no comparison of size.</p> </div>	<p>Fraction units</p> <p>No level need further information</p> <p>No level need further information</p> <p>Level 3- Reforms the whole</p> <p>Level 5 - Fractions as numbers</p> <p>Students could also be at Level 4 if they talk about the equivalence of two-sixths and one-third in their explanation</p>

