**SOUTH AFRICAN NUMERACY CHAIR**

**INDIVIDUAL INTERVIEW for MATHEMATICAL PROFICIENCY**

**GRADE 3 - ENGLISH**

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| **LEARNER & INTERVIEW INFORMATION INFORMATION**🕓 40 minutes | 🕓 40 minutes | Date |  |
| Surname |  | First name |  |
| Club |  | Gender | Male Female | Age |  |
| Mentor |  | Interviewer |  |
| Instructions in **[bold brackets]**, what you say to the learner in *italics***PLEASE WRITE IN BLACK OR BLUE PEN (NOT PENCIL)** |

PART ONE – Qs 1 to 11
Numeral identification, FNWS, BNWS, Counting by 10s & 100s, Place Value

**Task 1: Numeral Identification W/CU**

**[Use number cards to show each number to learner. Tick if correctly identified]***Tell me the name of these numbers*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *6* |  | *11* |  | *20* |  | *99* |  | *101* |  | *208* |  | *300* |  | *1025* |  | *½* |  | *¼* |  |

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**Task 2: Number Representations A2/CU**

**[White card. Show 1 number line at a time]** *Here is a number line. Tell me what number the arrow points to?*

 Wrongly positioned? Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *15*
 |  |  |  |  |
| 1. *Approx. 90*
 |  |  |  |

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**Task 3: Forward counting number word sequences W/CU**

**[Ask orally]** *Start counting in ones from \_\_\_\_ and I’ll tell you when to stop.*

 Skipped numbers Last no counted correctly

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *1 to 32*
 |  |  |  |  |
| 1. *48 to 61*
 |  |  |  |
| 1. *93 to 112*
 |  |  |  |  |

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**Task 4: Backward counting number word sequences W/PF**

**[Ask orally]** Example: *Count backwards from 3. . .Three, two, one.*

 *Now count backwards in ones from \_\_\_ and keep going until I say stop.*

 Skipped numbers Last no counted correctly

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *10*
 |  |  |  |  |
| 1. *23 to 16*
 |  |  |  |  |
| 1. *72 to 67*
 |  |  |  |  |

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**Task 5: Number word before W/PF**

**[Use green number cards for each number]** Example: *Which number comes just before 2? Now say the number that comes just before \_\_\_*

Note each answer

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1. *9*
 |  |  | 1. *11*
 |  |  | Comments |
| 1. *20*
 |  |  | 1. *30*
 |  |  |
| 1. *50*
 |  |  | 1. *100*
 |  |  |

**Task 6: Number word after W/PF**

**[Use green number cards for each number]** Example: *Which number comes just after 1? Now say the number that comes just after \_\_\_*

Note each answer

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1. *4*
 |  |  | 1. *19*
 |  |  | Comments |
| 1. *25*
 |  |  | 1. *32*
 |  |  |
| 1. *70*
 |  |  | 1. *99*
 |  |  |

**Task 7: Sequencing numerals W/PF**

**[Show the green number cards face up in random order, asking the learner to identify each number as you put it out. Then say]** *Can you place the cards in order? Start with the smallest number.*

 Note sequence learner laid cards out Sequence correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *(a) Cards from 0 to 10* |  |  |  |  |
| *(b) Cards from 46 to 55* |  |  |  |  |

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**Task 8: Perceptual counting W/PF**

**[Ask learner to place out counters for a & b. Note how learner counts these and the number counted]**

 Counts in 1s? Counts in multiple? Say which?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *Place out 13 counters for me*
 |  |  |  |  |
| 1. *Place out 18 counters for me*
 |  |  |  |  |

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| Comments: |

**Task 9: Counting with incrementing tens W/AR&CU**

**[Use pink strip cards. Show strip (a) then add others for steps b to e. Ask]** *How many dots are there altogether?*

 Note Given Answer & How Answered Correct?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. The ‘four dot’ strip
 |  |  |  |  |
| 1. Add a ‘ten dot’ strip to the right
 |  |  |  |  |
| 1. Add another 10 to make 24
 |  |  |  |  |
| 1. Add another 20 to make 44
 |  |  |
| 1. Add another 30 to make74
 |  |  |

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| Comments: |

**Task 10: Adding / subtracting with tens A2&3/PF**

**[Ask orally]** Note Given Answer Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *Add 10 to 92*
 |  |  |  |  |
| 1. *Add 10 to 294*
 |  |  |  |  |
| 1. *Take 10 away from 50*
 |  |  |  |  |
| 1. *Take 10 away from 700*
 |  |  |  |  |

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**Task 11: Adding with incrementing hundreds A2&3/PF**

**[Ask orally]** Note Given Answer Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *Add 100 to 9*
 |  |  |  |  |
| 1. *Add 100 to 932*
 |  |  |  |  |
| 1. *Take 100 away from 400*
 |  |  |  |  |
| 1. *Take 100 away from 634*
 |  |  |  |  |

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| Comments: |

**END OF PART ONE**

PART TWO – Qs 12 to 16
Early Arithmetic Strategies, Combining & Partitioning

**Task 12: Horizontal sentences – Early Arithmetic Strategies W/AR**

**[Use blue sentence cards]** *Tell me how you would work out the answer to:*

 Note Given Responses & How Answered Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *16 + 10 = □*
2. *So what is 16 + 9?*
 |  |  |  |  |
| 1. *42 + 23 = □If correct ask, Do you have another way to work it out or check it?*
 |  |  |  |  |
| 1. *43 – 15 = □Repeat the question above*
 |  |  |  |  |

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| Comments: |

**Task 13: Number Stories– Early Arithmetic Strategies A2&3/SC**

**[Ask orally]** *I am going to read you some number stories. Answer the question at the end of the story.*

 Note Given Responses & How Answered Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *12 people are on a bus and five get off. How many people are on the bus now?*
 |  |  |  |  |
| 1. *22 people are on a bus. 13 are children. How many adults are there?*
 |  |  |  |  |
| 1. *18 people were on a bus. 8 people get on and 3 get off. How many people are on the bus now?*
 |  |  |  |  |

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**Task 14: Number Stories– Early Arithmetic Strategies A2/SC**

**[Use pale yellow card with sums]** *I am going to read you another number story. Here are some sums. Tell me which* ***sum*** *you would use to answer the question at the end of the story. I don’t want the answer.*

 Given Answer Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *(a) There are 43 children in the class. 28 of the children are boys. How would you work out how many are girls?* |  |  |  |  |

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**Task 15: Non-count-by-ones – Early Arithmetic Strategies W/AR**

**[Use the orange calculation cards. Note how learner arrives at answers]**

 Note Given Answers & How Answered Correct?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *What is 9 + 3*
 |  |  |  |  |
| 1. *Can you use that to help you work out 9 + 4*
 |  |  |  |  |
| 1. *and 9 + 5*
 |  |  |  |  |
| 1. *What is 7 – 5*
 |  |  |  |  |
| 1. *Can you use that to help you work out 27 – 5*
 |  |  |  |  |
| 1. *and 47 –*
 |  |  |  |  |

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| Comments: |

**Task 16: Number combinations W/PF**

**[Ask orally]**

 Note answers

|  |  |  |
| --- | --- | --- |
| *I will say a number and you say the number that goes with it to make 5.* 1. *4*
2. *0*
3. *3*
 |  |   |
| 1. *Give me two numbers that add up to 10*
 |  |  |
| 1. *Give me two other numbers adding up to 10*
 |  |  |
| 1. *I have 7, how many more to make 10?*
 |  |  |

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| Comments: |

**END OF PART TWO**

PART THREE – Qs 17 to 24
Subitising, Multiplication and Division

**Task 17: Visible items arranged in arrays – Subitising W/AR**

**[Use red dot cards. Show 1 at a time. Note how the learner counts & the given answer]***Tell me how many dots there are all together.*

 Given answer Counts in 1s/ multiples? Which multiple?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *(a) Show the 10 × 2 array of dots* |  |  |   | 1s | multiples |  |
| *(b) Show the 5 × 3 array of dots* |  |  |  | 1s | multiples |  |
| *(c) Turn (b) through 90 degrees* |  |  |  | Recounts? | Instant answer? |

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**Task 18: Visible items arranged in arrays – Subitising A2/AR**

**[Show the cake cards 1 at a time. Note how the learner counts & the given answer]***There are 5 cakes in each box. I am going to show you pictures of what the children bought for a short time. Look carefully and tell me how many cakes each one bought.*

 Given answer Counts in 1s / multiples? Which multiple?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *(a) Natasha* |  |  |   | 1s | multiples |  |
| *(b) Rajesh* |  |  |  | 1s | multiples |  |

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**Task 19: Visible items arranged in arrays- Subitising A2/AR**

**[Show the apple cards 1 at a time. Note how the learner counts & the given answer]***There are 10 apples in a bag. I am going to show you pictures of what the children bought for a short time. Look carefully and tell me how many cakes each one bought.*

 Given answer Counts in 1s / multiples? Which multiple?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *(a) Dawn* |  |  |   | 1s | multiples |  |
| *(b) Gary* |  |  |  | 1s | multiples |  |

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**Task 20: Equal grouping of visible items – Subitising and Multiplication W/CU**

**[Use orange circle cards. Place down four circles with three counters on each. Show the difference between circle and counter. Note how the learner counts & the given answer]**

 Given answer Counts in 1s / multiples? Which multiple?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| (a) *How many circles are there?*  |  |  |   | 1s | multiples |  |
| (b) *How many counters in each circle?* |  |  |  | 1s | multiples |  |
| (c) *How many counters are there altogether?* |  |  |  | 1s | multiples |  |
|  |  |  |  |  |  |  |

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| Comments: |

**Task 21: Equal grouping of visible items – Partition Division W/PF**

**[Place out a pile of 15 counters. Note how the learner counts & the given answer]**

 Given answer Works in 1s / multiples? Which multiple?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *(a) How many counters are there?* |  |  |   | 1s | multiples |  |
| *(b) Share them equally among 3 children.*  |  |  |  | 1s | multiples |  |
| *(c) How many does each one get?*  |  |  |  | 1s | multiples |  |
|  |  |  |  |  |  |  |

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| Comments: |

**Task 22: Equal grouping of visible items – Partition Division with Redistribution W/PF**

**[Place out a pile of 24 counters. Note how the learner counts & the given answer]**

 Given answer Works in 1s / multiples? Which multiple?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1. *How many counters are there?*
 |  |  |   | 1s | multiples |  |
| 1. *Share them equally among 3 children.*
 |  |  |  | 1s | multiples |  |
| 1. *How many does each one get?*
 |  |  |  | 1s | multiples |  |
| 1. *Now share them equally among 4 children.*
 |  |  |  |  |  |  |

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| Comments: |

**Task 23: A2/PF**

**[Ask orally]** Given answer Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *Three lots of three makes (or three times three, equals)*
 |  |  |   |  |
| 1. *Four lots of five makes (or four times five equals)*
 |  |  |  |  |
| 1. *What are ten sets of four?*
 |  |  |  |  |
| 1. *What are ten sets of 70?*
 |  |  |  |  |

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**Task 24: A2/CU**

**[Show white marbles card]** *Jane and Peter play a game of marbles. Here is a picture of the marbles they use*

 Given answer Correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *Jane wins half of the marbles. How many marbles will she win?*
 |  |  |  |  |
| 1. *Peter wins a quarter of the marbles. How many will he win?*
 |  |  |  |  |

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| Comments: |

**END OF PART THREE**

PART FOUR – Qs 25 & 26
Multiplication & Division

**Task 25: Commutativity W/AR**

**[Show the green number cards for each of the problems below]**

 Given answer Sees relationship

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *What does 3 × 7 mean?*
 |  |  |   |  |
| 1. *And what can you say about 7 × 3?*
 |  |  |  |  |
| 1. *What can you tell me about 3 × 7 and 7 × 3?*
 |  |  |  |  |
| 1. *What is 7 × 0?*
 |  |  |  |  |
| 1. *And 0 × 7?*
 |  |  |  |  |
| 1. *What can you say about 7 × 0 and 0 × 7?*
 |  |  |  |  |

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**Task 26: Inverse Relationship W/AR**

**[Show the number cards for the each of the problems below]**

 Note answer Sees relationships?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. *What is the answer to 8 × 4?*
 |  |  |  |  |
| 1. *Can you use the answer in (a) to solve 32 ÷ 4?*
 |  |  |  |  |
| 1. *Eight times seven is 56. (Show the card). Use these numbers and symbols to make a division*

*sentence (Put down the cards).*  |  |  |  |  |
| 1. *What is 8 × 0?*
 |  |  |  |  |
| 1. *And 0 × 8?*
 |  |  |  |  |
| 1. *Use these numbers and symbols to make a division sentence (Put down the cards).*
 |  |  |  |  |

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| Comments: |

**END OF PART FOUR**