MATHEMATICS

GRADE 3 TERM 1

Helping teachers and learners to catch up with learning losses, master new content and acquire skills for the future.

2022

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CONTENTS

ABOUT THE PLANNER AND TRACKER

This 2022 Revised Recovery Curriculum and Assessment Planner and Tracker is provided by the National Education Collaboration Trust (NECT) on behalf of the Department of Basic Education (DBE)! We hope that this programme provides you with additional skills, methodologies and content knowledge that you can use to teach your learners more effectively.

WHAT IS NECT?
In 2012 our government launched the National Development Plan (NDP) to eliminate poverty and reduce inequality by the year 2030. Improving education is an important goal in the NDP which states that 90% of learners will pass Maths, Science and languages with at least 50% by 2030. This is an ambitious goal for the DBE to achieve on its own, so the NECT was established in 2015 to assist in improving education.

The NECT has successfully brought together groups of people interested in education so that we can work collaboratively to improve education. These groups include the teacher unions, businesses, religious groups, trusts, foundations and NGOs.

PURPOSE OF PLANNER AND TRACKER
1) To mediate the amendments of the trimmed and re-organised 2021 Annual Teaching Plan including School-Based Assessments for Mathematics Grade 3.
2) To ensure that meaningful teaching continues during the remaining teaching time as per the school calendar for TERM 1.
3) To assist teachers with guided pacing and sequencing of curriculum content and assessment.
4) To enable teachers to cover the core skills and knowledge in each grade within the available time.
5) To assist teachers with planning for the different forms of assessment.
6) To ensure learners are adequately prepared for the subsequent year/s in terms of skills, knowledge, attitudes and values.

PREAMBLE
It must be emphasized that 2021 mathematics content coverage by teachers were impacted by COVID-19. Schools were particularly disrupted by the fact that learners only attended school for 50% of the time and had to endure variations of the rotation system implemented in the schools. Disruption in schools has also meant disruption in different forms of assessment, so it's been hard to fully pin down exactly how much the school closures and transitions in and out of virtual learning have affected students' mathematical learning, but the evidence so far doesn't bode well.

Curriculum coverage in 2022 must be viewed and implemented in term 1, in the light of some contextual realities that includes the following:
1) 2021 was an abnormal year in terms of content coverage. Learners have progressed to a higher grade level without learning all the core skills required for that grade.
2) Some learners were not in school for most of 2020 and perhaps for most of 2021.
3) Mathematics is almost always formally learned at school. Many of our parents are often less well-equipped to help their children with mathematics, at a time when parent support can be even more crucial to student progress. This means that the burden falls directly on our teachers.

4) Broader stress and trauma related to the pandemic may worsen existing mathematics anxiety in some students, and mathematics anxiety can exacerbate students' other stress while in class.

Awareness of the above challenges and the consequent assumptions that emerge out of it, is crucial for the implementation of the Revised ATPs emphasizing the recovery of skills not yet mastered in mathematics. This Planner and Tracker is in alignment with the theme of recovery of skills not learnt and covers the following:

1) aims to ensure that the critical skills, knowledge, values and attitudes outlined in the ATPs are covered over this time period.
2) Curriculum Reorganisation and Trimming for this term purports to reduce the envisaged curriculum to manageable core content , skills, knowledge, attitudes and values to enhance deep and meaningful learning.
3) The Planner and Tracker clearly define the core knowledge, skills, attitude to be taught and assessed more specifically to guide and support teachers.
4) It also aligns curriculum content and assessment to the available teaching time.
5) Be used as planning tool to inform instruction during the remaining school terms.

ADJUSTED SCHOOL CALENDAR

SCHOOL TERMS	DATES	TEACHING DAYS
Term 1	10 January - 17 March	47 (10 weeks)
Term 2	5 April – 24 June	53 (12 weeks) – 6 holidays
Term 3	19 July – 30 September	54 (11 weeks) – 2 holidays
Term 4	11 October - 14 Dec	47 (10 weeks)

NOTES:
- TEACHING APPROACH in this term assumes that ALL learners are attending schools and the Rotation system may not be implemented meaning that schools may implement normal timetable.
- NECT TERM 1 Planner and Tracker will maintain the Rotation process used in 2021, especially for schools who found this process useful.
- NECT TERM 1 Planner and Tracker has 47 teaching and learning days, of which 15 days are used for formative and summative Assessment days.
- NECT Term 1 Planner and Tracker focuses on Deep learning through assessment for learning - There is no time for assessment that does not inform the way forward. Teachers should consolidate, revise and remediate through error analysis that leads to skills mastery.

ROTATION ROUTINE

REMEMBER: The teacher must employ group teaching based on principles of differentiation – cater for the needs of every learner by making sure every learner masters the fundamental skills in mathematics. The teacher is also mindful to plan well for effective for assessment for learning to inform the remediation and teaching, through the skills mastery approach applied in this Planner and Tracker.

GROUP ORGANIZATION: Below is a guide to support the teacher with organising the learners into at least 3 groups, bigger classes will have more groups… based on the need for rotation – noting that all our learners were expected to attend school from the beginning of term 1.

- if the class size is approx. 36.
- divide the class into 3 groups – to facilitate teaching, this also helps the teacher to recognise the learning potential of her 36 learners.
- groups can be differentiated/ ability groups or mixed groups – decide which will suit effective teaching and learning best for your context.
- practice one of the 2 rotation of group methods below.
- be mindful that effective teaching and learning aims to lay solid foundations for learning hence the teacher must be well organised and plan every day to deliver nothing but the best!

BELOW IS THE 3 WEEK CYCLE FOR ROTATION OF GROUPS

WEEK 1					
MONDAY	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**(1 x 3, 2 x 4, 3 x 3)**
Group 1 and 2	Group 2 and 3	Group 3 and 1	Group 1 and 2	Group 2 and 3	

WEEK 2					
MONDAY	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**(1 x 4, 2 x 3, 3 x 3)**
Group 3 and 1	Group 1 and 2	Group 2 and 3	Group 3 and 1	Group 1 and 2	

WEEK 2					
MONDAY	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**(1 x 3, 2 x 3, 3 x 4)**
Group 2 and 3	Group 3 and 1	Group 1 and 2	Group 2 and 3	Group 3 and 1	

ALTERNATIVELY: Some teachers prefer to embrace a group orientation whereby they teach each group daily.

MONDAY	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**
Group 1 and 3	Group 2 and 3	Group 1 and 3	Group 2 and 3	Whole class teaching

The plus factor here is that the teacher managers to teach the third group daily and the other groups will be able to complete more written work independently at the tables.

TEACHING TIME
Since there are 7 hours allocated for Mathematics, the following is a suggested plan.

WEEK: 7 hrs	
Counting	5 min
Consolidation of Concepts	10 min
New Concept – class activity	20 min
Group work	24 × 2 groups = 48 min

CONTENT COVERAGE

Term 1 45 days	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
CAPS Topic	• Baseline Assessment **NUMBER OPERATIONS & RELATIONSHIPS** • Count objects • Count forwards and backwards • Number symbols and number names • Place value	**NUMBER OPERATIONS & RELATIONSHIPS** • Count objects • Count forwards and backwards • Number symbols and number names • Describe, Order and Compare • Place value • Addition and Subtraction		**NUMBER OPERATIONS & RELATIONSHIPS** • Addition and Subtraction • Place value • Multiplication **PATTERNS FUNCTIONS & ALGEBRA** Geometric Patterns **SPACE & SHAPE** • 3-D objects		**NUMBER OPERATIONS & RELATIONSHIPS** • Addition and Subtraction • Multiplication • Money **MEASUREMENT** Time		**NUMBER OPERATIONS & RELATIONSHIPS** • Multiplication • Grouping and sharing **DATA HANDLING** • Collect data • Represent data • Analyse data		**REVISION**

Term 1 45 days	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
	NUMBER OPERATIONS & RELATIONSHIPS • Counting concrete objects by grouping up to 100 and count reliably • Complete number sequence up to 100 • Read and write number symbol up to 100 • Write number names 1 to 30 • Know what each digit represents • Decompose two-digit numbers up to 99 into multiples of tens and ones/units • Identify and state the value of each digit. **DBE Workbook:** Act 1, 2, 3	**NUMBER OPERATIONS & RELATIONSHIPS** • Recognise, identify, read and write number symbols up to 99 • Write number names up to 100 • Order and compare (<, >, =) whole numbers up to 99 • Arrange from greatest to smallest, less than and is equal to up to 99 • Decompose two-digit numbers into multiples of tens and units/ones up to 99 • Identify and state the value of each digit • Solve addition and subtraction problems up to 20 in context • Use appropriate symbols (+, -, =, □) **DBE Workbook:** Act 4, 17, 18, 19		**NUMBER OPERATIONS & RELATIONSHIPS** • Decompose two-digit numbers into multiples of tens and units/ones to 99 • Add and subtract problems of 2-digit numbers with the answer up to 99 in context and context free calculations. • Solve number problems in context and context free, explain own solution to problems involving multiplication with answers up to 50.(5 times and 2 times table) • Relationships between repeated addition and multiplication • Use appropriate symbols (+, =, ×, □) **DBE Workbook:** Act 20 a & b, 24. **PATTERNS FUNCTIONS & ALGEBRA** **GEOMETRIC PATTERN:** • Copy, extend and describe in words simple patterns made with physical objects. • Build own pattern using concrete objects. **DBE Workbook:** Act 9, 29 **SPACE & SHAPE** **3-D objects:** • Recognise and name 3-D objects in the classroom and in pictures • ball shapes, (spheres) • box shapes (prisms) • cylinders		**NUMBER OPERATIONS & RELATIONSHIPS** • Add and subtract up to 99 context free calculations • Solve number problems in context and context free, explain own solution to problems involving multiplication with answers up to 50. (5, 2, 3 and 4 times table) **Money: (integrated into addition and subtraction, multiplication)** • Recognise, identify SA money (5c, 10c, 20c, 50c, R1, R2, R5, and bank notes R10, R20, R50), and solve money problems up to R20. **DBE Workbook:** Act 21 a & b, 26 **MEASUREMENT** **TIME:** • Tell 12 hr time in hours, half hours, quarter hours and minutes in analogue clocks and digital clocks • Calculate length of time and passing of time - converting between days and weeks - converting between weeks and months - use clocks to calculate length of time in hours, half hours and quarter hours. **DBE Workbook:** Act 12, 32		**NUMBER OPERATIONS & RELATIONSHIPS** • Context free multiplication with answers up to 50.(5, 2, 3 and 4 times table) **Grouping and sharing leading to division:** • Solve number problems in context and explain own solutions to problems that involve equal sharing and grouping up to 50 by 2, 5 and 10 with answers (without remainder) • Use appropriate symbols (+, -; =, □) **DBE Workbook:** Act 23, 30 a & b, **DATA HANDLING** • Collect data about the class or school to answer questions posed by the teacher. • Use tallies to record data in categories provided. • Represent data in - tables - bar graphs • Talk about and answer questions about data in tables and bar graphs (Drawing a conclusion- interpretation of data). **DBE Workbook:** Act 16, 22		**REVISION of Term 1** • Addition and subtraction • Multiplication and division **DBE Workbook:** Act 27, 28

CORE QUESTIONS	DID ALL LEARNERS MASTER 2021 SKILLS?	NEW CONCEPTS/CONTENT

RECOMMEN-DATION	1. Implement at least two Skills Mastery (SM) formative assessments every week. 2. Consolidation of Concepts – 10 minutes – twice a week apply 5-item SM assessments. 3. Teacher – can use SM as individual, pair, small group, or whole class activity. 4. Aim – to consolidate, remediate and work towards mastery. 5. Record – monitor learners who have learning gaps in the REFLECTION section of the Tracker	NEW CONCEPTS/CONTENT

WEEKLY PLANNER AND TRACKER

RECOMMENDATION

<u>DIAGNOSTIC TERM 1</u>: Implement DBE Diagnostic – see exemplar – or any similar diagnostic – Based on 2021 core skills (counting, place value, number recognition and operations, etc)

<u>WHEN</u>: Day 1, allow learners to complete individually and/or work with ability groups based on your classroom context.

<u>NUMBER OF ITEMS</u>: Grade 3 = 20 items – depending on your context and ability groups

ITEM BANK: Items can be from previous:
1) BASELINE/READINESS assessment, 2) Assessment Resources in this TRACKER or 3) the DBE Item Bank and 4) PREPARATION: Test, Marking Guideline/s, Marksheet and apparatus.

10 – 14 January 2022

Week 1				
Day	ATP content, concepts, skills	DBE workbook 1	Resources	Date
1	No Learners at School			
2	No learners at school			
3	Baseline: (Revision/consolidation of Grade 2 core skills) Number Concept Place Value Addition and Subtraction	Worksheet 3a (p. 6) Worksheet 3b (p. 8) Worksheet 4 (p. 10) Worksheet 5 (p. 12) Worksheet 8 (pp. 18, 19) Worksheet 6 (pp. 14, 15)		
4	Baseline: (Revision, consolidation of Grade 2 core skills) Repeated Addition leading to multiplication Shapes Fractions	Worksheet 1 (p. 2) Worksheet 2 (p. 4) Worksheet 11 (pp. 24, 25) Worksheet 7 (p. 16)		
5	Baseline: (Revision, consolidation of Grade 2 core skills) 3-D objects Measurement Data Handling	Worksheet 10 (p. 22) Worksheet 13 (p. 28) Worksheet 14 (p. 30) Worksheet 15 (pp. 32, 33) Worksheet 16 (pp. 34, 35)		
Reflection				
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: •		What will you change next time? Why?		
		Struggling Learners Names:		
		HOD:	Date:	

17 - 21 January 2022

Week 2				
Day	ATP content, concepts, skills	DBE Workbook 1	Resources	Date
6	**Place value up to 99:** Recognise the place value of numbers to 99	Worksheet 18 (pp. 38, 39)	Flard cards (see *Printable Resources*), base ten blocks (see *Printable Resources*): Written assessment item 1	
7	**Compare and order numbers up to 99:** Describe, order and compare whole numbers up to 99 using smaller than, greater than, more than, less than and is equal to. Describe and order whole numbers up to 99 from smallest to greatest, and greatest to smallest	Worksheet 17 (pp. 36, 37)	Base ten blocks (see *Printable Resources*) (remediation only), blank 100 square (see *Printable Resources*)	
8	**Numbers between a 100 to 200:** Recognise, identify, read and write number	Worksheet 33 (pp. 76, 77)	101–200 number board, flard cards (see *Printable*	

			Resources) Written assessment items 2 and 3	
9	**Numbers 200 to 300:** Recognise, identify, read and write number symbols and names from 200 to 300	Worksheet 23 (pp. 52, 53)	Number cards and number name cards 200–300, flard cards (see *Printable Resources*) Written assessment item 4	
10	Complete and consolidate the week's assessment and work			

Week 2 Assessment Activity: ORAL – INFORMAL CAPS: Number, operations and relationships: Place value Activity: Place value in numbers up to 99; Observe learners to assess their ability to work with tens and units	**Mark:** **/7**

Mark (percent)	Criteria – Rubric
1 (0%–29%)	Unable to recognise or represent place value in numbers up to 99
2 (30%–39%)	Can read numbers up to 99 using face value but cannot identify the tens and units
3 (40%–49%)	Can read numbers up to 99 using face value – can correctly identify the units in the number
4 (50%–59%)	Can read numbers up to 99 using face value – can correctly identify the tens and units in the number
5 (60%–69%)	Able to recognise and represent place value of numbers up to 99 in concrete displays, for example, base ten blocks
6 (70%–79%)	Able to recognise place values in numbers and can compare pairs of numbers according to size
7 (80%–100%)	Able to recognise place values in numbers and can order numbers from smallest to greatest correctly

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Recognise the place value of numbers to 99 • Describe, order and compare whole numbers • Use smaller than, greater than, more than, less than and is equal to. • Describe and order from smallest to greatest, and greatest to smallest • Recognise, identify, read and write number symbols from 100 to 200 • Recognise, identify, read and write number symbols and names from 200 to 300	What will you change next time? Why? **Struggling Learners Names?**
	HOD: Date:

24 – 28 January 2022

Week 3				
Day	ATP content, concepts, skills	DBE workbook	Resources	Date
11	**Subtraction on a number line:** Use a number line to subtract numbers	Worksheet 20a (pp. 42, 43) Worksheet 20b (pp. 44–45)	Number lines (see *Printable Resources*)	
12	**Addition and subtraction:**	Worksheet 21a (pp. 46 – 47)		

	Add and subtract from 99 and use appropriate symbols (+, −, =, □); Build up and break down numbers	Worksheet 21b (pp. 48 –49)		
13	**Money:** Recognise and identify the South African coins and bank notes; Solve money problems involving totals and change in rand or cents	Worksheet 26 (pp. 60, 61)	Empty containers (cereal boxes, cooldrink cans, tins, washing powder boxes, plastic milk bottles), pictures and cut-outs from supermarket fliers, range of play coins and notes to the value of R50 for each pair Written assessment item 6	
14	**Addition on a number line:** Use a number line to add on in tens and ones	Worksheet 19 (pp. 40, 41)	Number lines (see *Printable Resources*) Written assessment item 5	
15	Complete and consolidate the week's assessment and work			

Week 3 Assessment Activity: ORAL and PRACTICAL – INFORMAL CAPS: Number, operations and relationships: Addition **Activity: Addition in the number range 0–100; Observe learners doing addition this week**		Mark: **/7**
Mark (percentage)	**Criteria − rubric**	
1 (0%–29%)	Unable to add correctly	
2 (30%–39%)	Able to add by counting all	
3 (40%–49%)	Able to add by counting on from the first number	
4 (50%–59%)	Able to add without counting but makes several mistakes and lapses back into counting sometimes	
5 (60%–69%)	Able to add without counting but makes a few mistakes	
6 (70%–79%)	Able to add in the number range without making any mistakes	
7 (80%–100%)	Able to add beyond the number range without making any mistakes	

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Use a number line to subtract numbers • Add and subtract from 99 • Use appropriate symbols (+, −, =, □) • Build up and break down numbers • Recognise and identify the South African coins and bank notes • Solve money problems involving totals and change in rand or cents • Use a number line to add on in tens and ones	What will you change next time? Why? **Struggling Learners names:** **HOD:** **Date:**

31 January – 4 February 2022

Week 4				
Day	**ATP content, concepts, skills**	**DBE workbook 1**	**Resources**	**Date**
16	**Fives arrays:** Solve repeated addition problems up to 50 using fives: Multiply numbers 1 to 10 by 5 and use appropriate symbols (×, =, □)	Worksheet 24 (p. 55)	Written assessment item 7	

17	**Twos (equivalent groups) and repeated addition:** Solve repeated addition problems up to 50 using twos; Multiply numbers 1 to 10 by 2 and use appropriate symbols (×, =, □)	Worksheet 25a (pp. 56, 57)	Counters Written assessment item 8	
18	**Twos arrays:** Solve repeated addition problems up to 50 using threes; Multiply numbers 1 to 10 by 2 and use appropriate symbols (×, =, □)	Worksheet 25b (pp. 58, 59)		
19	**Fives (equivalent groups) and repeated addition:** Solve repeated addition problems up to 50 using fives; Multiply numbers 1 to 10 by 5 and use appropriate symbols (×, =, □)	Worksheet 24 (p. 54)	Counters	
20	Complete and consolidate the week's assessment and work			

Week 4 Assessment Activity: ORAL and PRACTICAL – FORMAL

CAPS: Number, operations and relationships: Subtraction

Activity: Subtract in the number range 0–100; Observe learners doing addition this week

Mark: /7

Mark (percentage)	Criteria – rubric
1 (0%–29%)	Unable to subtract correctly
2 (30%–39%)	Able to subtract by all and then counting back
3 (40%–49%)	Able to subtract by counting back from the first number
4 (50%–59%)	Able to subtract without counting but makes several mistakes and lapses back into counting sometimes
5 (60%–69%)	Able to subtract without counting but makes a few mistakes
6 (70%–79%)	Able to subtract in the number range without making any mistakes
7 (80%–100%)	Able to subtract beyond the number range without making any mistakes

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Solve repeated addition problems up to 50 using fives: • Multiply numbers 1 to 10 by 5 and use appropriate symbols (×, =, □) • Solve repeated addition problems up to 50 using twos; • Multiply numbers 1 to 10 by 2 and use appropriate symbols (×, =, □) • Solve repeated addition problems up to 50 using threes • Multiply numbers 1 to 10 by 2 and use appropriate symbols (×, =, □) • Solve repeated addition problems up to 50 using fives • Multiply numbers 1 to 10 by 5 and use appropriate symbols (×, =, □)	What will you change next time? Why? **Struggling Learners Names**:
	HOD: **Date:**

7 – 11 February 2022

	Week 5			
Day	**ATP content, concepts, skills**	**DBE workbook 1**	**Resources**	**Date**
21	**Twos – sharing and grouping:** Solve and explain solutions to practical problems that involve equal sharing and grouping up to 50; Divide numbers up to 50 by 2 and use appropriate symbols (÷, =, □)	Worksheet 30a (pp. 68, 69)	Counters Written assessment item 11	
22	**2-D shapes – straight and curved sides:** Describe, sort and compare 2-D shapes in terms of shape, straight sides and round sides	Worksheet 10 (pp. 22, 23)	Labels and cut-outs of a rectangle, triangle, circle, square; a bag/ pillowcase to put the shapes into	
23	**2-D shapes – straight and round sides:** Describe, sort and compare 2-D shapes in terms of shape, straight sides and round sides	Worksheet 11 (pp. 24, 25)	Scrap paper, 2-D shapes and shape name cards, old magazines/adverts, 3-D shapes (cylinder, cone, pyramid, sphere, prism/ box) Written assessment item 13	
24	Complete, consolidate and revise work. Complete formal assessment			
25	Complete and consolidate the week's assessment and work			

	Mark:
Week 5 Assessment Activity: ORAL – FORMAL **CAPS: Patterns and Algebra: Number patterns** **Activity: Observe learners counting in fives and twos and using 2s and 5s to multiply and divide**	**/7**

MARK	**Criteria – Checklist (1 mark for each criterion achieved)**
1	Able to count in 2s
1	Able to count in 5s
1	Able to count 2s and 5s shown in arrays
1	Able to use 2s in sharing problems
1	Able to use 5s in sharing problems
1	Able to use 2s in grouping problems
1	Able to use 5s in grouping problems

1 (0%–29%)	2 (30%–39%)	3 (40%–49%)	4 (50%–59%)	5 (60%–69%)	6 (70%–79%)	7 (80%–100%)
1 of 7 criteria	2 of 7 criteria	3 of 7 criteria	4 of 7 criteria	5 of 7 criteria	6 of 7 criteria	7 of 7 criteria

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Solve and explain solutions to practical problems that involve equal sharing and grouping up to 50 • Divide numbers up to 50 by 2 and use appropriate symbols (÷, =, □) • Describe, sort and compare 2-D shapes in terms of shape, straight sides and round sides	What will you change next time? Why? **Struggling Learner names:**
	HOD: **Date:**

Week 6				
Day	**ATP content, concepts, skills**	**DBE workbook 1**	**Resources**	**Date**
26	**Data – bar graph and tables:** Group to at least 200 objects to estimate and count reliably; Represent data in a table with tallies and frequencies; Represent data in a graph	Worksheet 22 (pp. 50–51)		
27	**Data – tallies and tables:** Collect data about the class to answer a question posed by the teacher: Use tallies to record data in categories provided	Worksheet 36 (pp. 84–85)	Written assessment item 16	
28	**Threes (equivalent groups) and repeated addition:** Solve repeated addition problems up to 30 using threes; Multiply numbers 1 to 10 by 3 and use appropriate symbols (×, =, □)	Worksheet 27 (p. 62)	Counters	
29	**Threes arrays:** Solve repeated addition problems up to 50 using threes; Multiply numbers 1 to 10 by 3 and use appropriate symbols (×, =, □)	Worksheet 27 (p. 63)		
30	Complete and consolidate the week's assessment and work			

Week 6 Assessment Activity: ORAL and PRACTICAL – FORMAL CAPS: Space and shape Activity: 2-D shapes – assess learners' ability to recognise, identify and compare shapes	Mark /7

Mark (percentage)	Criteria – rubric
1 (0%–29%)	Able to recognise and name squares and circles
2 (30%–39%)	Able to recognise and name triangles, squares and circles
3 (40%–49%)	Able to recognise and name rectangles, triangles, squares and circles
4 (50%–59%)	Able to recognise and compare rectangles, circles, squares and triangles in familiar orientations
5 (60%–69%)	Able to recognise, sort and compare rectangles, circles, squares and triangles in unfamiliar orientation
6 (70%–79%)	Able to recognise, sort and compare rectangles, circles, squares and triangles in any orientation
7 (80%–100%)	Able to describe, sort and compare rectangles, circles, squares and triangles in any orientation

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Group to at least 200 objects to estimate and count reliably • Represent data in a table with tallies and frequencies • Represent data in a graph • Collect data about the class to answer a question posed by the teacher • Use tallies to record data in categories provided • Solve repeated addition problems up to 30 using threes • Multiply numbers 1 to 10 by 3 and use appropriate symbols (×, =, □) • Solve repeated addition problems up to 50 using threes;	What will you change next time? Why? **Struggling Learners Names:** **HOD:** **Date:**

Week 7				
Day	ATP content, concepts, skills	DBE workbook 1	Resources	Date
31	**Threes – sharing and grouping:** Solve and explain solutions to practical problems that involve equal sharing and grouping up to 30; Divide numbers up to 30 by 3 and use appropriate symbols (÷, =, □)	Worksheet 30a (pp. 68–69)	Counters	
32	**Fours (equivalent groups) and repeated addition:** Solve repeated addition problems up to 40 using fours; Multiply numbers 1 to 10 by 4 and use appropriate symbols (×, =, □)	Worksheet 28 (p. 64)	Counters	
33	**Fours arrays:** Solve repeated addition problems up to 50 using fours; Multiply numbers 1 to 10 by 4 and use appropriate symbols (×, =, □)	Worksheet 28 (p. 65)	Written assessment item 12	
34	**Fours – sharing and grouping:** Solve and explain solutions to practical problems that involve equal sharing and grouping up to 50; Divide numbers up to 50 by 4 and use appropriate symbols (÷, =, □)	Worksheet 30b (pp. 70–71)	Counters	
35	Complete and consolidate the week's assessment and work			

Week 7 Assessment Activity: PRACTICAL – FORMAL CAPS: Data handling: Collecting and representing data Activity: Observe learners' ability to collect, present, analyse and interpret data	Mark: /7

Mark (percentage)	Criteria – rubric
1 (0%–29%)	Collects data
2 (30%–39%)	Collects and sorts the data
3 (40%–49%)	Collects, sorts and describes the sorted data
4 (50%–59%)	Collects, sorts, describes and organises data in a table
5 (60%–69%)	Organises data in a table and answers questions posed by the teacher
6 (70%–79%)	Tabulates and represents data in a pictograph
7 (80%–100%)	Tabulates and represents data and answers questions about data in pictograph

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Solve and explain solutions to practical problems that involve equal sharing and grouping up to 30 • Divide numbers up to 30 by 3 and use appropriate symbols (÷, =, □) • Solve repeated addition problems up to 40 using fours • Multiply numbers 1 to 10 by 4 and use appropriate symbols (×, =, □) • Solve repeated addition problems up to 50 using fours • Solve and explain solutions to practical problems that involve equal sharing and grouping up to 50 • Divide numbers up to 50 by 4 and use appropriate symbols (÷, =, □)	What will you change next time? Why? **Struggling Learners Names:** **HOD:** **Date:**

28 February – 4 March 2022

Week 8				
Day	**CAPS content, concepts, skills**	**DBE workbook 1**	**Resources**	**Date**
36	**Fractions** – fractions as a part of a group: Use and name fractions in familiar contexts including halves, quarters, eights, thirds, sixths, fifths	Worksheet 31 (pp. 72)	Written assessment item 9	
37	**Fractions** – fraction shapes: Solve and explain solutions to practical problems that involve equal sharing leading to solutions that include unitary fractions, e.g., 1/2, 1/4, 3/4, 2/5 etc.; Begin to recognise equivalent fractions	Worksheet 31 (pp. 73)	Scrap paper, fraction circles, fraction wall (see *Printable Resources*) Written assessment item 10	
38	Complete, consolidate and revise work. Complete assessment			
39	**Time** – calendars: Read dates on calendar; Place birthdays, religious festivals, public holidays, historical events, school events on a calendar	Worksheet 12 (pp. 26–27)	Current calendar (1 per pair)	
40	Consolidation assessment 3 plus remediation			

Week 8 Assessment Activity: ORAL – FORMAL **Mark: /7**
CAPS: Number operations and relationships
Activity: Observe learners' ability to count in threes and fours and work with multiples, sharing and grouping

Mark	Criteria – Checklist: 1 mark for each criterion achieved
1	Able to count in 3s
1	Able to count in 4s
1	Able to count 3s and 4s shown in arrays
1	Able to use 3s in sharing problems
1	Able to use 4s in sharing problems
1	Able to use 3s in grouping problems
1	Able to use 4s in grouping problems

1 (0%–29%) 1 of 7 criteria	2 (30%–39%) 2 of 7 criteria	3 (40%–49%) 3 of 7 criteria	4 (50%–59%) 4 of 7 criteria	5 (60%–69%) 5 of 7 criteria	6 (70%–79%) 6 of 7 criteria	7 (80%–100%) 7 of 7 criteria

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Use and name fractions in familiar contexts including halves, quarters, eights, thirds, sixths, fifths • Solve and explain solutions to practical problems that involve equal sharing leading to solutions that include unitary fractions, e.g., 1/2, 1/4, 3/4, 2/5 • Begin to recognise equivalent fractions • Read dates on calendar • Place birthdays, religious festivals, public holidays, historical events, school events on a calendar	What will you change next time? Why? Struggling Learners Names: **HOD:** **Date:**

7 – 11 March 2022

Week 9				
Day	**ATP content, concepts, skills**	**DBE Workbook 1**	**Resources**	**Date**
41	**Time – analogue time:** Tell 12-hour time in hours, half-hours, quarters on analogue clocks and digital clocks and other digital instruments	Worksheet 32 (pp. 74)	Analogue clock (see *Printable Resources*), digital clocks Written assessment item 15	
42	**Time – calculate time passed:** Calculate length of time and passing of time	Worksheet 32 (pp. 75)	Analogue clock (see *Printable Resources*), digital clock	
43	Complete, consolidate and revise work. Complete assessment			
44	**Geometric patterns:** Copy, extend, describe in words simple patterns made with physical objects and with drawings of lines, shapes or objects; Create own geometric patterns with physical objects and drawings of lines, shapes or objects	Worksheet 47 (p. 109)	Four sets of 4–5 identical items (e.g., pictures of 4 apples, 4 oranges, 4 pears and 4 bananas) per group	
45	Complete and consolidate the week's assessment and work			

Week 9 Assessment Activity: PRACTICAL – FORMAL
CAPS: Measurement: Capacity
Activity: Observe learners' ability to estimate, measure, compare and order according to capacity

Mark /7

Mark	Criteria – Checklist: 1 mark for each criterion achieved
1	Can use the vocabulary of capacity, e.g., full, empty
1	Can estimate capacity in non-standard units, e.g., spoons and cups
1	Can estimate capacity in standard units, e.g., using 5 ml teaspoons and 250 ml cups
1	Can measure capacity using non-standard units
1	Can measure capacity using standard units
1	Can compare two containers according to capacity
1	Can order a set of containers according to capacity

1 (0%–29%)	2 (30%–39%)	3 (40%–49%)	4 (50%–59%)	5 (60%–69%)	6 (70%–79%)	7 (80%–100%)
1 of 7 criteria	2 of 7 criteria	3 of 7 criteria	4 of 7 criteria	5 of 7 criteria	6 of 7 criteria	7 of 7 criteria

Reflection

DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Tell 12-hour time in hours, half-hours, quarters on analogue clocks and digital clocks and other digital instruments • Calculate length of time and passing of time • Copy, extend, describe in words simple patterns made with	What will you change next time? Why? STRUGGLING LEARNERS:

	physical objects and with drawings of lines, shapes or objects • Create own geometric patterns with physical objects and drawings of lines, shapes or objects	HOD: Date:

14 – 17 March 2022 (Four-day week)

Week 10				
Day	**CAPS content, concepts, skills**	**DBE Workbook 1**	**Resources**	**Date**
46	**Number patterns in 3:** Copy and extend and describe number sequences of 3 between 0 and 200	Worksheet 29 (p. 66)	1–200 number board (see *Printable Resources*), counters	
47	**Number patterns in 4:** Copy and extend and describe number sequences of 4 between 0 and 200	Worksheet 29 (p. 67) Worksheet 9 (pp. 20–21)	1–200 number board (see *Printable Resources*), counters	
48	Complete, consolidate and revise work. Complete assessment			
49	Complete, consolidate and revise work. Complete assessment			
50	END OF TERM			

Week 10 Assessment Activity: ORAL – INFORMAL **CAPS: Measurement: Time** **Activity: Observe learners' ability to work with calendars**						**Mark:** **/7**
Mark	**Criteria – Checklist: 1 mark for each criterion achieved**					
1	Knows the names of the calendar months (January to December)					
1	Able to read the calendar month name					
1	Able to read the names of the days of the week (Monday to Sunday)					
1	Able to identify weekdays on a calendar					
1	Able to identify weekend days on a calendar					
1	Able to locate given dates on a calendar					
1	Able to calculate number of days passed between two give dates					

1 (0%–29%)	2 (30%–39%)	3 (40%–49%)	4 (50%–59%)	5 (60%–69%)	6 (70%–79%)	7 (80%–100%)
1 of 7 criteria	2 of 7 criteria	3 of 7 criteria	4 of 7 criteria	5 of 7 criteria	6 of 7 criteria	7 of 7 criteria

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Copy and extend and describe number sequences of 3 between 0 and 200 • Copy and extend and describe number sequences of 4 between 0 and 200	What will you change next time? Why? **Struggling Learners Names:**
	HOD: **Da** **te:**

ASSESSMENT RATIONALE AND RESOURCES

Assessment Term Plan

The assessment term plan gives an overview of
1) how the formal and informal assessment programme fits into the weekly lesson plans.
2) How the skills mastery assessments fit into the weekly lesson plans

Note:
• The practical and oral activities provided in the tracker link to the lesson activities in the week in which they are to be done.
• The written assessment items and guidelines for marking them are included in this document.
• The Skills mastery assessments – aimed at consolidating, revising and remediating skills already covered this year - are added at the end of the document.

Written assessment tasks are to be selected and marked by teachers in appropriate lessons according to the lesson plans. Teachers may wish to group the items or use them individually.

Week	Informal Assessment (End of week) and Skills Mastery Activities (Tuesdays and Thursdays)	Formal Assessment Activities (End of week)
1	Baseline Assessment Oral: Activity 1 Numbers, operations and relationships: Place-value	**Baseline assessment or the revision activities**
2	**Oral: Activity 1** Number, operations and relationships – Place value **Tuesday** Skills mastery Assessment 1 **Thursday** Skills mastery Assessment 2	**Written: Item bank questions 1, 2 and 3** Number
3	**Oral and Practical: Activity 2** Number, operations and relationships – Addition **Tuesday** Skills mastery Assessment 3 **Thursday** Skills mastery Assessment 4	**Written: Item bank questions 4 and 5** Number
4	**Tuesday** Skills mastery Assessment 5 **Thursday** Skills mastery Assessment 6	**Oral and Practical: Activity 3** Number, operations and relationships – Subtraction **Written: Item bank question 6** Number
5	**Tuesday** Skills mastery Assessment 7 **Thursday** Skills mastery Assessment 8	**Oral: Activity 4** Patterns and Algebra – Number patterns **Written: Item bank questions 7 and 8** Number
6	**Tuesday** Skills mastery Assessment 9 **Thursday** Skills mastery Assessment 10	**Oral: Activity 5** Space and shape – 2-D shapes **Written: Item bank questions 11 and 13** Patterns and Space and Shape

7	Oral: Activity 7 Numbers, operations and relationships: Multiplication and division strategies **Tuesday** Skills mastery Assessment 11 **Thursday** Skills mastery Assessment 12	**Practical: Activity 6** Data handling – Collect and represent data **Written: Item bank question 16** Data Handling
8	**Tuesday** Skills mastery Assessment 13 **Thursday** Skills mastery Assessment 14	**Oral: Activity 7** Number operations and relationships – Multiples, sharing and grouping **Written: Item bank question 12** Number patterns
9	**Oral: Activity 9** Measurement – Time	**Practical: Activity 8** Measurement – Capacity **Written: Item bank questions 9, 10 and 14** Number and measurement
10	**Oral and Practical: Activity 10** Patterns and Algebra – Geometric patterns	**Written: Item bank question 15** Measurement

Exemplar Written Assessment ITEMS with marking memos.

These are **Resources** that can be used for written assessment of each curriculum content strand and their memos are given in the following section.
   • Written assessment is to be done in addition to oral and practical assessment to carry out meaningful continuous assessment throughout the term. The tracker provides a suggested set of oral and practical assessment activities with rubrics or checklists that can be used to help you carry out your oral and practical assessment of learners.
   • You need to plan when you will do a written assessment. We suggest you do it during the lessons in which you are teaching the same content (links to the items are given in the Resources column of the tracker).
   • The questions provided here are taken from past written assessment papers that were previously in the lesson plans, but they have been grouped according to content area. We suggest you use selected items as smaller written assessment tasks. This aligns better with the curriculum objective of continuous assessment in Foundation Phase.
   • You can choose to mark and record the mark of the selected items OR of an equivalent classwork activity.
   • There is one lesson "slot" per week that is assigned for you to catch up or consolidate the lesson plan content covered in the week's lessons. This lesson should also be used for the purpose of carrying out written assessment tasks or to complete oral or practical tasks for that week.

Written assessment item mark breakdown (according to exemplar items)

1. **Written assessment items for Numbers, operations and relationships.**
   There are several assessment items for Number and operations. These are linked in the Resources column of the tracker. You could use the following sheet to record the written assessment marks for Number and operations per learner as the term progresses. You can then add the marks to get a mark out of 31 for each learner. This mark can then be inserted into the column for the total mark for written assessment of Number and operations in the suggested overall exemplar mark sheet.

There is also a column in the overall formal assessment mark record sheet for the total mark per learner for written assessment in each of the other CAPS curriculum strands: Pattern, Space and shape, Measurement and Data handling. The information below summarises the items for these content topics given in the exemplar items.

2. **Written assessment items for Pattern.**
   Questions 11 and 12 – Marks 3 + 4 = 7

3. **Written assessment items for Space and shape.**
   Questions 13 – Marks 12

4. **Written assessment items for Measurement.**
   Questions 14 and 15 – Marks 3 + 2 = 5

5. **Written assessment items for Data handling.**
   Question 16 – Marks 9

The exemplar items and suggested marking memoranda for these items are given on the pages that follow the suggested recording sheet.

Written assessment items for numbers, operations & relationships.

Question number	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10	Total
Mark	3	2	2	2	4	6	3	2	5	2	31
Learner name and surname											

TASK/TOPIC/COMPONENT	Week and activity type	(Out of) marks	LEARNER NAME AND SURNAME								
Number	4: Oral and practical	7									
Number	8: Oral	7									
Number	Written	29									
TOTAL FOR NUMBER		43									
Patterns	5: Oral	7									
Patterns	Written	7									
TOTAL FOR PATTERNS		14									
Space and shape	6: Oral	7									
Space and shape	Written	12									
TOTAL FOR SPACE AND SHAPE		19									
Measurement	9: Practical	7									
Measurement	Written	5									
TOTAL FOR MEASUREMENT		12									
Data handling	7: Practical	7									
Data handling	Written	9									
TOTAL FOR DATA HANDLING		16									

ITEM BANK FOR WRITTEN ASSESSMENT: EXEMPLAR

Written assessment items for Numbers, Operations and Relationships

Question 1

(3)

Complete the following:

a) 64 =_____tens +_____units

b) 3 units + 9 tens +_____= 193

Question 2

(2)

Write this number in words:

a) 18 _____

b) 154 _____

Question 3

(2)

Circle the biggest number and make a cross over the smallest number.

160	106	116	166

Question 4

(2)

Write the number symbol for the following number:

a) Seventy six _____

b) Two hundred and nine _____

Question 5

(2)

Use the number lines to calculate:

a) 125 + 30 = ☐

b) 190 – 45 = ☐

21
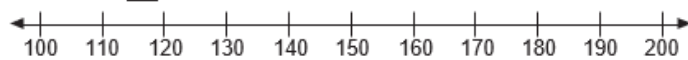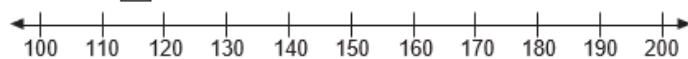
Question 6

Apples cost 90c. Neo has four 50c coin and two 20c coins.

a) How much money does Neo have?

(2)

_____

b) How much will two apples cost?

(2)

_____

c) How much money will he have left?

(2)

_____

Question 7

(3)

My grandmother tiles her floor. She has 6 rows with 5 tiles in each row. How many tiles does she use?
Draw a number line to show how many tiles she uses altogether. Write the number sentence.

Question 8

(2)

I have 9 bags. There are 2 sweets in each bag.
How many sweets do I have altogether? _____

_____

Question 9

(5)

There are 9 boys and 6 girls.

a) How many children are there altogether? _____

b) How many boys are there? _____

c) What fraction of the children are boys? _____

d) How many girls are there? _____

e) What fraction of the children are girls? _____

Question 10
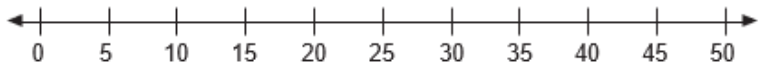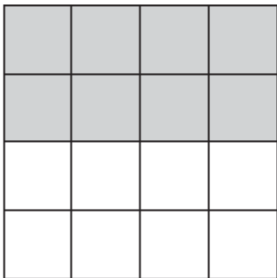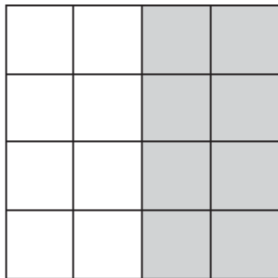
(2)

Shade one half of each shape below in a different way:
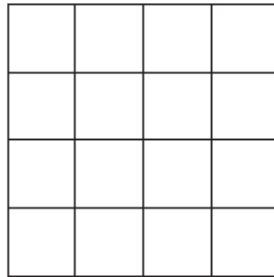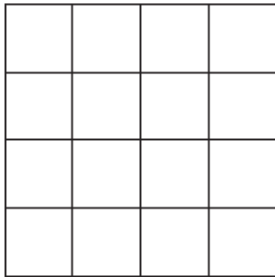
Written assessment items for Numbers, Operations and Relationships: Solutions and mark allocations.

1. (1 mark for the correct answer)
 	
   a) 64 = <u>6</u> tens + <u>4</u> units
 	
   b) 3 units + 9 tens + <u>1 hundred</u> = 193
	(3)

2. (1 mark for each correct answer)
 	
   a) eighteen
 	
   b) one hundred and fifty four
	(2)

3. (1 mark for each correct answer) 160 106 116 (166)	(2)

4. (1 mark for each correct answer)
 	
   a) 76
   b) 209
	(2)

5. (1 mark for each correct answer)
 	
   a) 155
   b) 145
	(2) + (2)

6. (1 mark for the correct answer)
 	
   a) $4 \times 50c = R2,00$ and $2 \times 20c = 40c$ He has R2,40
   b) $2 \times 90c = R1,80$ or 180c
   c) $R2,40 - R1,80 = 60c$
	(2) + (2) + (2)

7. (1 mark for the correct answer and two marks for the number line) $6 \times 5 = 30$ 0 5 10 15 20 25 30 35 40 45 50	(3)
8. $9 \times 2 = 18$ (1 mark) 18 sweets (1 mark)	(2)

9. (1 mark for each correct answer)
 	
   a) 15
   b) 9
   c) three fifths
   d) 6
   e) two fifths
	(5)

10. (1 mark for each correct answer) (answers may vary)	(2)

Written Assessment Items for Patterns

Question 11

(3)

Complete the following patterns:

a) 138, 140, 142, _____,

b) 76, 74, _____, 70

c) 60, _____, 70, 75

Question 12

(4)

a) Underline the numbers that are not multiples of 4?

32, 21, 28, 27, 36, 24

b) Count in 5s:

___ ; ___ ; 165; 160; 155

Solutions and Mark Allocation

11. (1 mark for each correct answer) a) 144 b) 72 c) 65	(3)
12. (1 mark for each correct answer) a) 32, <u>21</u>, 28, <u>27</u>, 36, 24 b) 175; 170	(4)

Written Assessment Items for Space and Shape

Question 13

(12)

Draw and complete this table

		Name of shape	Number of sides	Are the sides straight or round?
a)	□			
b)	△			
c)	▭			
d)	○			

Solutions and Mark Allocation

13. (1 mark for each correct answer)			(12)
a) square	4	straight	
b) triangle	3	straight	
c) rectangle	4	straight	
d) circle	1	round	

Written Assessment items for Measurement.

Question 14

(3)

340 ml   1 000 ml

a) What is the capacity of the milk carton? _____

b) What is the capacity of the Fanta can? _____

c) Which container has the greater capacity? _____

Question 15

(2)

   a) Write half past 7 in digital time.

_____

   b) Write 05:30 in analogue time.

_____

Solutions and Mark Allocation

14. (1 mark for each correct answer)
 	
  a) 1 000 ml
  b) 340 ml
  c) The milk carton
	(3)

15. (1 mark for each correct answer)
 	
  a) 07:30
  b) 5.30 am
	(2)

Written Assessment for Data Handling

Question 16

(9)

The children in your class have dogs, cats, fish and birds as pets.

27

a) Use the tally table to sort the data and find the number of each type of pet.

Pet	Tally	Frequency
dogs		
cats		
birds		

b) What is the most popular pet?

_____

c) What is the least popular pet?

_____

d) What is the difference between the number of cats and the number of birds as pets?

_____

Solutions and Mark Allocation
16. (1 mark for each correct answer)   (9)

a)

Pet	Tally	Frequency
dogs	IIII IIII	9
cats	IIII II	7
birds	IIII	4

b) dog

c) bird

d)

28

SKILLS MASTERY ASSESSMENTS

Rationale

- A Skills Mastery Assessment (SMA) is one in which there is an iterative revisiting of skills, topics, subjects or themes throughout the year.
- SMA is not simply the repetition of a topic taught. It requires the deepening of it, with each successive encounter building on the previous one.
- SMA is critical in today's educational environment, especially in mathematics, where we must consistently give our learners the opportunity to revisit and practice skills they have already learned aimed at mastery.
- The traditional practice is to incorporate consolidating, revising or reviewing, through homework, morning work, small group instruction, and even after school math classes. Through SMA we are going to continuously review skills and concepts with our students.
- It makes sense that we would continue to assess their understanding on those same skills by changing the context of the question using C-P-A-W (Concrete – Pictorial – Abstract -Worded)
- When we first teach and assess a skill, many of our students have yet to master it.   By incorporating a SMA activity into your classroom, you are providing your students with the opportunity to demonstrate their growth and understanding on a regular basis.
- These regular SMAs help you see where your students are always struggling. You can use the results to guide your small group instruction and customize your lessons and activities to meet the needs of your students, not just the covering of curriculum.

Implementation

- In every lesson plan there are 10 minutes set aside for consolidation and revision, meaning one could apply SMA every day for 10 minutes, before teaching a new concept for that day.
- Each SMA is using a five-item design to ensure teachers can complete it in 10 minutes.
- As a minimum, this Planner and Tracker, recommends the use of Tuesdays and Fridays, but teachers could use every day.
- Each Tuesday and Thursday you are encouraged to take 10 minutes and give a SMA to the whole class, or groups. Learners should be able to take about 5 minutes to complete – then the teacher must remediate by addressing errors, misconceptions and misunderstandings.
- Teachers could also use the data from the SMA to help plan small group lessons for the next week.
- Teachers could also pull different students for different skills until the teacher felt confident that the learners were more confident in their responses. Then next week, repeat….new set of SMAs, similar skills being assessed, new data for small group instruction.
- These daily SMAs should be seen as a progress monitoring tool as well. This will prove to be effective in letting teachers know how their most struggling students are progressing.

SKILLS MASTERY SKILLS FOR 5-ITEM ASSESSMENTS

SM Assessment 1	Write the 3-digit numbers Place value: Complete by filling in the missing number Circle the groups of objects that match the equation Determine the value: Place value Ascending order
SM Assessment 2	Find the number between two numbers Counting backwards and forwards Number operations Identify the shape Addition: tens and units
SM Assessment 3	Rounding off to the nearest 10 Word problem: Solve the problem Estimate and calculate Fractions: Identify half of the shape Write an addition and subtraction sum using the number line
SM Assessment 4	Grouping: Calculate Growing patterns: Fill in the missing numbers Counting backwards Counting forwards and backwards in 3s
SM Assessment 5	Multiplication Counting, grouping, repeated addition, arrays and facts: complete the table Days of the week Repeated pattern
SM Assessment 6	Mass: Identify which object is lighter (compare) Balancing scale: Identify weight Sharing: Write a fraction Word sum
SM Assessment 7	Identify the shapes. Problem Solving Subtract two two-digit numbers - with regrouping
SM Assessment 8	2D shapes – identify the sides Comparing shapes Congruency Perimeter Bonds of 10
SM Assessment 9	Problem Solving: learners must show their workings/ methods. Fill in the missing numbers – multiplication Time: Clocks Calendar – Months Arrays - Fractions
SM Assessment 10	Make a repeating pattern Counting patterns - up to 100 Subtraction Bonds Counting by looking at objects
SM Assessment 11	Counting objects and compare Identify the number of hands and fingers Determine the number symbol and place value.

	Write a number sentence Use the breaking down method for addition and subtraction
SM Assessment 12	Growing pattern: Fill in the missing numbers Show a sum on a number line Make a number sentence true: Operations Place value cards: Identify Rounding off Growing pattern
SM Assessment 13	Word sum: Subtraction Division in word problem Complete the next numbers in a pattern counting backwards and forwards
SM Assessment 14	Identify and count how many numbers you see in a picture given Bigger, smaller or equal Write a number sentence to match the sum given Identify greater and smaller
SM Assessment 15	Doubling and halving Calculate how much time passed Determine how many red lines you need to cover a black line given Balance scale: Identify which object is heavier/lighter
SM Assessment 16	Multiplication and grouping Make your own pattern and explain Word sums Use a number line to write a subtraction and division number sentence Divide and colour the shape to show the fraction given
SM Assessment 17	Counting forwards and backwards: up to 4 digits Geometric patterns Counting in 2s up to 4 digits From addition to multiplication Write a number in words
SM Assessment 18	Addition Subtraction Multiplication Place value
SM Assessment 19	Multiplication Division Addition Subtraction Fractions
SM Assessment 20	Long division Word sum: Division

SKILLS MASTERY EXEMPLARS

Skills Mastery (SM) Assessment 1

Number	Assessment
1.	Write the 3-digit numbers

1. _____ 700 + 70 + 9   2. _____ 200 + 90 + 8

2. Find the missing numbers:

5 + 400 + _____ = 485

60 + 8 + _____ = 668

3. Circle the group of objects that match the equation:

6 x 2 = 12

How many cherries are there in that group? ____

4. Determine the value of the underlined digit.

1. 6̲15 = _____   2. 1̲9 = _____

5. Write the numbers from smallest to largest.

1.	71 _____	2.	41 _____
	91 _____		92 _____
	53 _____		84 _____
	36 _____		90 _____

SM Assessment 2

Number	Assessment
1.	
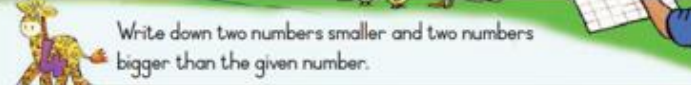
Which numbers come between:

150 and 158   _____

172 and 177   _____

2. Write down two numbers smaller and two numbers bigger than the given number.

Smaller		Number	Bigger	
		157		
		165		

3.

1 0 0 9 0 3	1 0 0 8 0 1
=	=

4. Fit the word with the shape.

■ (red square)	triangle
▬ (teal rectangle)	circle
▲ (green triangle)	square
● (yellow circle)	rectangle

5.

Add the following:

$60 + 4 =$ ☐

$90 + 8 =$ ☐

SM Assessment 3

Number | **Assessment**

1. Round to the nearest ten.

1. 745 = _____   2. 655 = _____   3. 181 = _____

2. The local food bank was receiving donations from the community.
They had 40 boxes of pasta sauce in storage and received 47 more boxes last month. How many boxes of pasta sauce are there?

3. Estimate and then calculate.

Estimate ☐
Calculate ☐

4. Color half of each shape which shows two equal parts.

5.

Write an addition and subtraction sum using the number line.

0 10 20 30 40 50 60 70 80 90 100
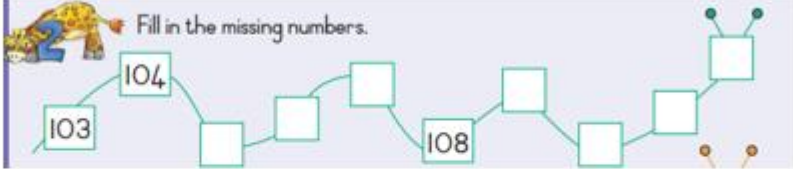
Addition sum: _____   Subtraction sum: _____

SM Assessment 4

Number	Assessment
1.	2 groups of 7 _____ 3 groups of 8 _____

2.

Fill in the missing numbers.

103   104   [ ]   [ ]   108   [ ]   [ ]   [ ]

3.

Complete the following counting backwards.

128 — 126 — 124 — [ ] — [ ] — 118 — [ ] — [ ] — [ ] — [ ]

4.

Complete the following by extending the pattern.

100, 102, 104, ___, ___, ___, ___, ___

5.

Complete the following:

3	6	9						
30	27	24						

SM Assessment 5

Number	Assessment
1.	Complete the following:

$5 \times$ 🍎🍎🍎 $=$ [ ] apples

$6 \times$ 🍌🍌🍌 $=$ [ ] bananas

2.

Skip counting	Equal groups	Repeated addition	Arrays	Facts
3, 6, 9, 12	●● ●● ●● ●●	$3 + 3 + 3 + 3$	3 rows of 4 × × × × × × × × × × × × × × × ×	$3 \times 4 = 12$ $4 \times 3 = 12$
		$4 + 4 + 4$		

3.

Days of the week

Unscramble the letters of the days of the week.

AYUETSD	DNYUAS	ONAYDM
ENEDSDWAY	UAYTSRHD	
ASTDAUYR		IFADRY

Fill in the missing days.

Monday		Wednesday	
Sunday		Tuesday	

Write down the days of the week.

Sunday						

4.

Fill in the missing number to complete the repeated pattern.

55, 21, 19, 63, 55, 21, 19, 63, 55, 21, 19, 63, 55, 21, 19, ___

18, 28, 36, 18, 28, 36, 18, 28, 36, 18, 28, 36, 18, ___

5.

The long side is _____ crayons.
The short side is _____ crayons.

The long side is _____ crayons.
The short side is _____ crayons.

SM Assessment 6

Number   Assessment

1.

Colour the picture or pictures that show things lighter than the one in the green block.

2.

Say if the balance scales are equal or not.

3.

• Share the fruit among the different numbers of friends.
• Say what fraction each friend gets.
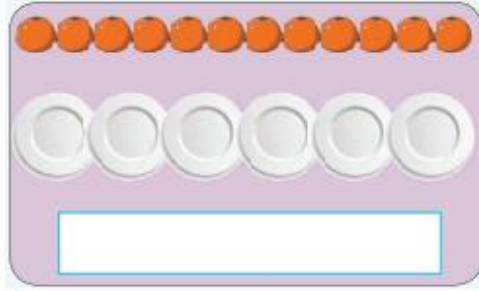
4.

Grandmother gives Kiki 12 oranges. Kiki makes juice with one third of the oranges. How many oranges did she use?

5.

Four oranges are cut into thirds.

How many children can each get one third? _____

SM Assessment 7

Number   Assessment
1.   Circle the correct answer for each of the followings.

Rectangle / Circle / Triangle	Rectangle / Circle / Square	Square / Circle / Triangle

2.   Draw a line so the one side of the shape looks the same as the other side.

3. Find the difference.

1) 979 - 300 = _____   2) 443 - 200 = _____

4. How many shapes are there? What is one **half** of the shapes?

5.

SM Assessment 8

Number   Assessment

1. Fill in the following table.

Shape	Name	Number of Sides	Number of Vertices
	Triangle		
	Square		

2. Each rectangle and square below can be made of identical small squares. How many squares are required to fill each shape? The first one is done for you.

3.

Congruent shapes have the same size and shape.
Circle the shapes on the right that are congruent to the shapes on the left.
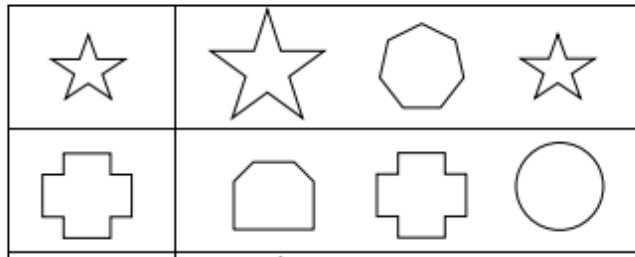
4.

Find the perimeter of the shapes shown below.

4 cm	6 ft	
4 cm 4 cm	2 ft	8 inch 8 inch
4 cm		8 inch
_____	_____	_____
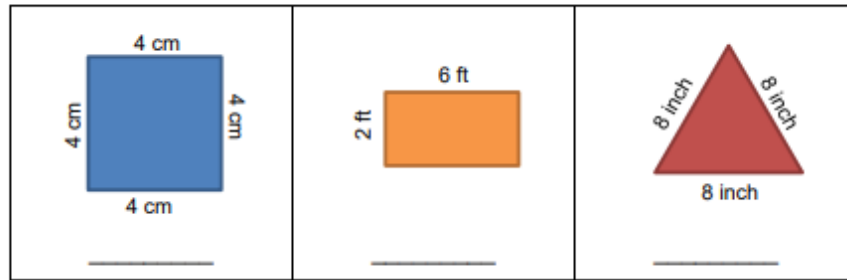
5.

Fill the 10/ make a ten. If the learner knows 10 well, s/he will break down any number/ some prefer to break down the smallest number in the sentence. Remember your bonds of 10!

a) 8 + 6 =   8 + 2 + 4 =
                    10 + 4 = 14
   ② ④

b) 8 + 4 =

SM Assessment 9

Number	Assessment
1.	Find the missing number.

1. $2 \times 2 = \square$

2. $5 \times 2 = \square$

3. $\square \times 2 = 12$

4. $\square \times 2 = 6$

2.

The class is doing a math activity. There are 5 groups of 4 students.

1. How many students are there in the class?

3.

Draw the clock hands to show the time it was or will be.

1.

What time will it be in 2 hours 0 minutes?

2.

What time was it 4 hours 0 minutes ago?

4.

Before	This Month	After
	February	
	October	
	January	

5. Use arrays to show:

One quarter of 12 sweets.	One third of 12 sweets.	One half of 12 sweets

SM Assessment 10

Number   Assessment

1.

Sticker design	Tally marks	Number
🧁		
🍕		
💝		
🌴		

2.

Cleaning supplies

sponge   rubber gloves   soap   brush
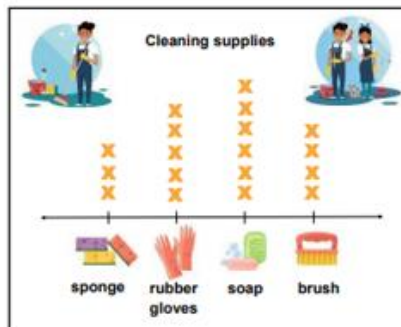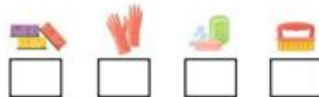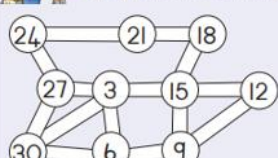
3.

What fraction of the cup cakes has banana icing? Strawberry icing? Bubblegum icing?

4.

Identify the pattern. Draw the path, starting with the smallest number.

24 — 21 — 18
27 — 3 — 15 — 12
30 — 6 — 9

5.

Complete.

34			36	40
	22	19		

39

SM Assessment 11

Number   Assessment
1.

    1. How many socks? _____   How many children? _____

2.

    2. How many hands?_____   How many fingers?_____

3.

Complete:

number name	number symbol	tens	ones	number sentence
seventy-eight				
forty -four				

4.

Calculate the following by using the 'breaking down' method.
(a) 45 + 36 =

Work space:

5.

(b) 50 – 23 =

Work space:

SM Assessment 12

Number	Assessment
1.	

(a) Replace the ? with the correct number .
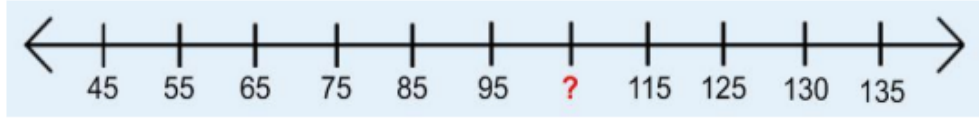
(b) Show the following sum: **55 + 20 =** on the number line.

2.   Make the number sentence true.   15 * 25 * 10 = 30

Rewrite the sum in the box below.

3.   Look at the flard / place value cards.
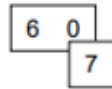
(a) Write down the number that it represents. _____

(b) Round off the number to the nearest ten. _____

4.

(c) How would the number in (a) change if you change the tens to | 9 0 |

Write the number sentence for the above here: _____

5.   Thato sells hot dogs at R4 each. Make a table to help him find the amount for large orders.   (

Number of hot dogs	1	2	3	4	5	6
Cost in R	4	8	12			

SM Assessment 13

Number	Assessment
1.	Mrs Honey buys a burger, coke and ice cream. If she pays for all three items with a R20 note, how much change does she get? **Circle the correct answer.**

R8,50   R2,50   R3,00

(a) R13,00   (b) R8,50   (c) R9,50   (d) R14,00   (e) R6,00

2.

Teacher has 45 pieces of chalk. She was given another 40 pieces. She shared the chalk equally amongst four of her learners. How many pieces of chalk did each get and how many were left?   (

Work space:

3.

What are the next numbers?

(a) 145, 144, 143, _____, _____, _____

(b) 135, 145, 155, _____, _____, _____

4.

Use the numbers in the box to complete the patterns that follow.

```
                                          140
              145
                        65              116
              120            100
    99                                   125
```
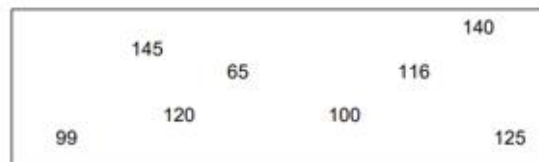
(a) 96, 97, 98, _____, _____, 101

(b) 104, 108, 112, _____, _____, 124

5.

Identify the number pattern and fill in the missing numbers.

1)	2	4	6	8	10					

SM Assessment 14

Number   Assessment
1.

number hunt

```
   5    7    9   11    14   16   17
3   1   10   12    15   4    6    8
13   19    0   14    18   15   17   3
   4  17  5  8  19  20    14  1   0
5   15  6  11  15  19    5  7  9  10
0  14  18  19  1  4    6  8  11  14
2  6  7  9  10  11  13  16  18  20
   3  16  19  20  3  5  8  9  10  11
4  8  9  11  14  16  18  19  20  16
10  14  19  20  4  7  9  11  13  18
5  7  9  10  15  18  19  20  7  9  10
```

a) Count and state how many:

9s, 11s and 20s can be seen on the chart

2.

Use the >, < or = sign to complete each number sentence.

12 [ ] 15

630 [ ] 630

3.

Write the number sentences to match the work below.

126 > 99 _____

4.

Which number is greater than 7,350?

A. 7,206

B. 7,333

C. 7,801

D. 7,060

5.

What is the missing addend in $8 + \triangle = 14$?

A. 6

B. 8

C. 14

D. 22
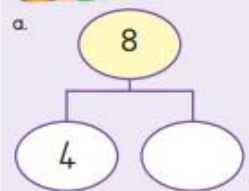
SM Assessment 15
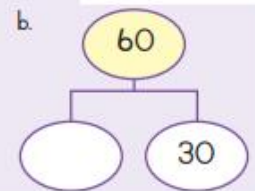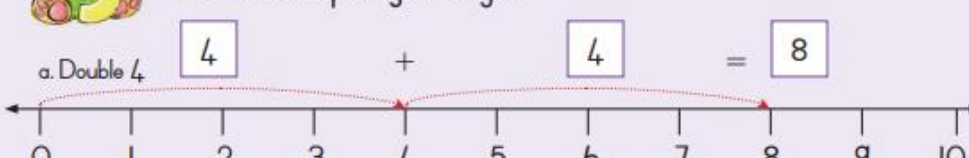
Number	Assessment
1.	Finding doubles or halves a. 8 → 4 , ___ b. 60 → ___ , 30
2.	Double the number using a number line. The first example is given to you. a. Double 4 : $4 + 4 = 8$ 0 1 2 3 4 5 6 7 8 9 10
3.	**Time passes** _____ o'clock _____ o'clock _____ o'clock _____ o'clock
4.	Mystery lengths a. How many of the red lines do you need to cover the black line? ☐
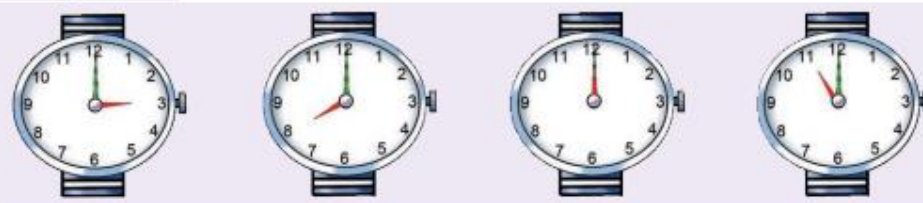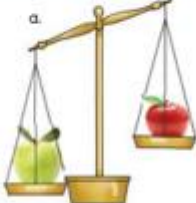
5.

We use a balance scale to measure mass.

a.

b.

On this scale both apples weigh the same.

Answer the question. Write a or b.

On which scale is the green apple heavier than the red apple ☐

On which scale is the green apple lighter than the red apple ☐

SM Assessment 16

Number	Assessment
1.	

3 cows have _____ legs.	$4 + 4 + 4 = 3 \times 4 =$ _____12_____
5 cows have _____ legs.	
4 cows have _____ legs.	
7 cows have _____ legs.	
8 cows have _____ legs.	

2.

Making your own patterns

a. In this number pattern all the numbers are even. What can the other numbers be? Write them in.

74

3.

At the sea

Thembi collects between 60 and 70 sea shells.
When she counts them in 3s, she has I left over.
The possible numbers are; 6I, _____, _____, 70.
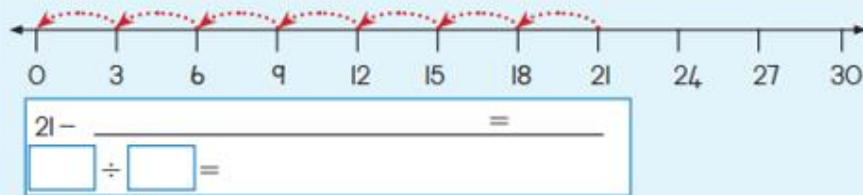When she counts them in 5s, she has 4 left over.
The possible numbers are; _____, _____.
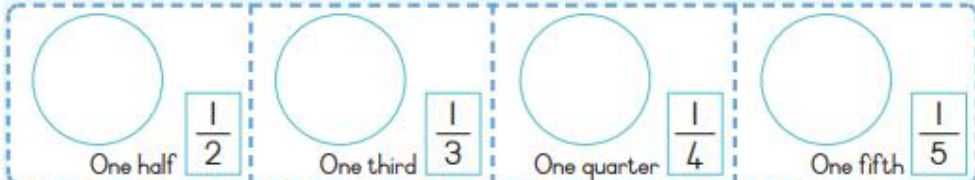How many shells does Thembi have? _____.

4.

Use the number lines to write a subtraction and division number sentence.

```
  0   3   6   9   12   15   18   21   24   27   30
```

21 – _____ = _____

☐ ÷ ☐ =

5.

Divide and then colour the shape to show the fraction;

One half $\frac{1}{2}$ One third $\frac{1}{3}$ One quarter $\frac{1}{4}$ One fifth $\frac{1}{5}$
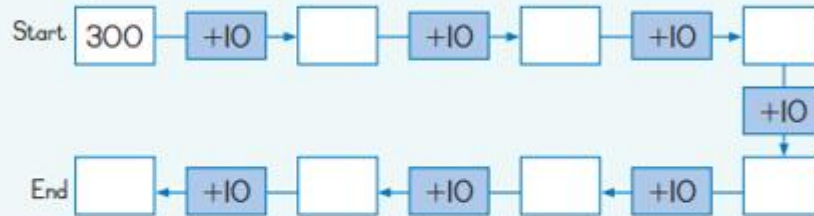
SM Assessment 17

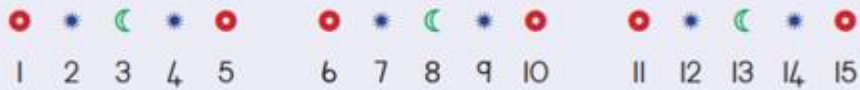| Number	Assessment
1.	

Count forwards and backwards

a. Counting forward from 300 in tens.

Start 300 → +10 → ☐ → +10 → ☐ → +10 → ☐

+10

End ☐ ← +10 ← ☐ ← +10 ← ☐ ← +10 ← ☐

2.

Look, think and answer!

| ● | ✳ | ☾ | ✳ | ● | | ● | ✳ | ☾ | ✳ | ● | | ● | ✳ | ☾ | ✳ | ● |
| 1 | 2 | 3 | 4 | 5 | | 6 | 7 | 8 | 9 | 10 | | 11 | 12 | 13 | 14 | 15 |

a.

What shape will number 16 be? Tick (✓) the right one.	✳ ● ☾
What shape will number 18 be? Tick (✓) the right one.	✳ ● ☾
What shape will number 23 be? Tick(✓) the right one.	✳ ● ☾

3.

Count in 2s
Counting forwards and backwards in 2s

a. 232; 234; _____ ; _____ ; _____ ; 242; _____ ; _____ ; 248

b. 500; _____ ; 496; _____ ; _____ ; 490; _____ ; _____ ; _____

c. 460; _____ ; _____ ; 400; _____ ; 360; _____ ; _____ ; _____

d. 341; _____ ; 361; _____ ; _____ ; 391; _____ ; 411; _____ ; _____

4.

From + to × (addition to multiplication)

Complete the number sentences.

5.

Write the numbers in words.

90	ninety	41	
77		56	
14		65	

SM Assessment 18

Number	Assessment
1.	1. 19 + 19 = _____
2.	2. 90 - 18 = _____
3.	3. 9 × 4 = _____
4.	4. What's halfway between 70 & 80? _____
5.	5. Value of the 8 in 861? _____

SM Assessment 19

Number	Assessment
1.	1. 7 x 9 = _____
2.	2. 72 ÷ 6 = _____
3.	3. 52 + 85 = _____
4.	4. 104 – 74 = _____
5.	7. What fraction of the shape is shaded? _____

SM Assessment 20

Number	Assessment
1.	5 ⟌ 3 5
2.	2) Share out 20 cards between 5 people. How many cards each?
3.	3) Divide 18 eggs into boxes of 6 eggs. How many boxes can I fill?
4.	4) Share 24 chocolates between 4 children. How many chocolates each?
5.	5) Divide 20 pencils into packs of 4. How many packets will I make?