PLANNER & TRACKER FOR RECOVERY ANNUAL TEACHING PLAN (ATP)

MATHEMATICS

GRADE 5 TERM 4

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

2021

basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL EDUCATION COLLABORATION TRUST

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CONTENTS

ABOUT THE PLANNER AND TRACKER

This 2021 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 5.
2) To ensure that meaningful teaching continues during the remaining teaching time as per the school calendar for TERM 4.
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 term 1, term 2 and term 3 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 has 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 does not bode well.

Curriculum coverage in term 1, 2 and 3 must be viewed and implemented in term 4, in the light of some contextual realities that includes the following:
1) 2020 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 part 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) Create opportunities through adjusted ATPs to strengthen pre-knowledge, consolidation, revision, and deeper learning.
4) The Planner and Tracker clearly define the core knowledge, skills, attitude to be taught and assessed more specifically to guide and support teachers.
5) It also aligns curriculum content and assessment to the available teaching time. Entrench assessment for learning as a Pedagogical Approach to address the learning losses.
6) Be used as planning tool to inform instruction during the remaining school terms.

ADJUSTED SCHOOL CALENDAR

SCHOOL TERMS	DATES	TEACHING DAYS
Term 1	15 February - 23 April	50(10 weeks)
Term 2	3 May – 9 July	50(10 weeks)
Term 3	26 July – 01 October	50(10 weeks)
Term 4	**11 Oct - 15 Dec**	**48(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 4 Planner and Tracker has 48 teaching and learning days, of which 15 days are used for formative and summative Assessment days.
- NECT Term 4 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.

MANAGING TIME ALLOCATED IN THE TRACKER

- The tracker for each term contains details of work to be covered over 60 lessons per term, six per week for ten weeks.
- The CAPS prescribes **six hours** of Mathematics per week in Grade 5.
- Each school will organise its timetable differently, so the programme of lessons is based on work in the Learner's Book and DBE workbook, which should take just over an hour per day to complete.

- You might have to divide the sessions in the programme slightly differently to accommodate the length of the lessons at your school.
- Depending on the pace at which your learners work, and how much support is needed,
- you might also have to supplement the set activities by using other resources to ensure that the full six hours allocated to teaching Mathematics is used constructively.
- The breakdown of work to be done each week corresponds to the 'annual teaching plan and programme of assessment' drawn up by the Provincial Department of Education; however, the tracker gives a more detailed outline of what should be taught each day.
- This tracker is designed for a term that is 10 weeks long.
- In most weeks, one lesson is set aside for you to catch up on work not done in the previous five lessons, or to provide remedial support or enrichment.
- The formal teaching programme, some revision, and the term test should be completed by the end of Week 9.

REMEMBER: The teacher should 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 assessment for learning to inform the remediation and teaching, through the skills mastery approach applied in this Planner and Tracker.

LINKS TO THE DBE WORKBOOKS
The tracker gives links to worksheets in the DBE workbooks relevant to the content described for each day. The worksheets are referred to by worksheet number and page number. These workbooks should be used in conjunction with the Learner's Book activities. You should review the suggested worksheets before each lesson and decide how best to use them – for teaching, revision, extension or consolidation, in class or for homework.

TEACHING TIME
Since there are 6 hours allocated for Mathematics per week, the following is a suggested plan for daily lessons.

WEEK: 6 hours	
Consolidation of Concepts – skills mastery and other	10 min
New Concept – class activity	50 min

CONTENT COVERAGE

TERM 4	Week 1 4 days	Week 2 5 days	Week 3 5 days	Week 4 5 days:	Week 5 5 days	Week 6 5 days	Week 7 5 days	Week 8 5 days	Week 9 5 days	Week 10 3 days
Hours per week	5 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs	3 hrs.
Hours per topic	12 hrs.		6 hrs.		6 hrs.	12 hrs.		6 hrs.	6 hrs	3 hrs.
Topics, concepts and skills	**PERIMETER, AREA AND VOLUME OF 2 D SHAPES** **Perimeter** • Measure perimeter using rulers or measuring tapes **Measurement of area** • Find areas of regular and irregular shapes by counting squares on grids in order to develop an understanding of square units **Measurement of volume** • Find volume/capacity of objects by packing or filling them in order to develop an understanding of cubic units		**CAPACITY/VOLUME** **Practical Measuring** • Estimate and practically measure 3-D objects using measuring instruments such as: — measuring spoons — measuring cups, — measuring jugs • Record, compare and order capacity and volume of 3D objects in millilitres (ml) and litres (l) **Calculations and problem- solving** • Solve problems in contexts involving capacity/volume • Convert between millilitres and litres limited to examples with whole numbers and fractions		**TIME:** **Reading time and time instruments** • Read, tell and write time in 12-hour and 24-hour formats on both analogue and digital instruments in: — hours — minutes — seconds • Instruments include clocks, watches and stopwatches **Reading calendars** **Calculations and problem solving time include:** • problems in contexts involving time • calculation of time intervals where time is given in — seconds and/or minutes — minutes and/or hours — hours and/or days — days, weeks and/or months • years and/or decades	**USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT** **Solving problems** • Solve problems in contexts involving whole numbers and fractions, including: — financial contexts — measurement contexts — fractions, including grouping and equal sharing — comparing two or more quantities of the same kind (ratio) — comparing two quantities of different kinds (rate)		**REVISION**	**FORMAL ASSESSMENT TASKS TEST** All Term 3 and Term 4 topics	**FORMAL ASSESSMENT TASKS TEST** All Term 3 and Term 4 topics

CORE QUESTIONS	DID ALL LEARNERS MASTER TERM 1 and term 2 SKILLS?	DID ALL LEARNERS MASTER TERM 3 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

BASELINE TERM 4: Implement DBE Diagnostic or see baseline exemplar in Planner and Tracker or any similar diagnostic – Based on term 1, 2 and 3 core skills. Teachers are encouraged to use the exemplar, based on what content they have completed. Meaning teachers can select different items in the diagnostic for their purposes.

WHEN: Day 1, allow learners to complete individually and/or work with ability groups based on your classroom context. Day 2 is set aside for remediation purposes.

NUMBER OF ITEMS: Grade 5 = 20 items – depending on your context and ability groups

ITEM BANK: Items can also be drawn 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.

11 – 15 October 2021

Week 1				
Lesson	ATP Content	concepts, skills	DBE workbook	Resources	Date
1		Baseline: (Revision,			

Lesson	ATP Content	concepts, skills	DBE workbook	Resources	Date
		consolidation of term 1,2 & 3 skills)			
2		Baseline: Remediation – error analysis			
3	PERIMETER, AREA & VOLUME OF 2-D SHAPES Perimeter: Measure perimeter using rulers or measuring tapes	calculate lengths and perimeters.	Bk 1 No. R11 (pp. xxxiv & xxxv)		
4	PERIMETER, AREA & VOLUME OF 2-D SHAPES Perimeter: Measure perimeter using rulers or measuring tapes	calculate lengths and perimeters.	Bk 2 No. 127 (pp. 154 & 155)		
5	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of area: Find areas of regular and irregular shapes by counting squares on grids in order to develop an understanding of square units	Understanding square units Find areas of regular and irregular shapes Draw diagrams to show differences in area.	Bk 1 No. R12 (pp. xxxvi & xxxvii)		
6	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of area: Find areas of regular and irregular shapes by counting squares on grids in order to develop an understanding of square units	Understanding square units Find areas of regular and irregular shapes Draw diagrams to show differences in area.	Bk 2 No. 128 (pp. 156 & 157)		

Notes for the teacher.
1. The Baseline Assessment can be administered one-on one or to a group of at least 5 learners at a time – it is an assessment FOR learning.
2. The onus is on the teacher to prepare substantial activities for the rest of the learners while the Baseline Assessment is being administered.
3. Prepare well - study the Baseline Assessment i.e. familiarise yourself with the apparatus and templates that must be used.

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • calculate lengths and perimeters. • Understanding square units • Find areas of regular and irregular shapes • Draw diagrams to show differences in area. • Find areas of regular and irregular shapes	What will you change next time? Why?
	Struggling Learners Names:
	HOD: **Date:**

18 - 22 October 2021

	Week 2				
Lesson	ATP Content	concepts, skills	DBE workbook	Resources	Date
7	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of area: Find areas of regular and irregular shapes by counting squares on grids in order to	Find areas of regular and irregular shapes Count number	Bk 2 No. 129 (pp. 158 & 159)		

Lesson	ATP content	concepts, skills	DBE workbook	Resources	Date
	develop an understanding of square units	of square units. Measure lengths accurately			
8	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of volume Find volume/capacity of objects by packing or filling them in order to develop an understanding of cubic units	Finding capacity/volume of objects Understand cubic units as measurement unit	Bk 1 No. R13 (pp. xxxviii & xxxix)		
9	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of volume Find volume/capacity of objects by packing or filling them in order to develop an understanding of cubic units	Finding capacity/ volume of objects by counting cubes Understand cubic units as measurement unit	Bk 2 No. 130 (pp. 160 & 161)		
10	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of volume Find volume/capacity of objects by packing or filling them in order to develop an understanding of cubic units	Finding capacity/ volume of objects Show length, width and height of blocks	Bk 2 No. 131 (pp. 162 & 163)		
11	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of volume Find volume/capacity of objects by packing or filling them in order to develop an understanding of cubic units	Finding capacity/ volume of objects Show length, width and height of blocks	Bk 2 No. 132 (pp. 164)		
12	Assessment Activity: Consolidate and revise – assess learners fraction understanding, remediate for understanding – use SM Activities				

Reflection

DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO:	What will you change next time? Why?
- Find areas of regular and irregular shapes - Count number of square units. - Measure lengths accurately - Understand cubic units as measurement unit - Finding capacity/ volume of objects by counting cubes - Finding capacity/ volume of objects - Show length, width and height of blocks	**Struggling Learners Names?**
	HOD: **Date:**

25 – 29 October 2021

Week 3					
Lesson	ATP content	concepts, skills	DBE workbook	Resources	Date

13	PERIMETER, AREA & VOLUME OF 2-D SHAPES Measurement of volume Find volume/capacity of objects by packing or filling them in order to develop an understanding of cubic units	Finding capacity/ volume of objects Show length, width and height of blocks	Bk 2 No. 132 (pp. 165)		
14	CAPACITY/VOLUME Practical Measuring Estimate and practically measure 3-D objects using measuring instruments such as:– measuring spoons– measuring cups,– measuring jugs Record, compare and order capacity and volume of 3D objects in (ml) and litres (l)	Using appropriate measuring tools. Finding capacity of objects Apply units of measurement Convert between litres, millilitres	Bk 1 No. 24a (pp. 74)		
15	CAPACITY/VOLUME Practical Measuring Estimate and practically measure 3-D objects using measuring instruments such as:– measuring spoons– measuring cups,– measuring jugs Record, compare and order capacity and volume of 3D objects in (ml) and litres (l)	Using appropriate measuring tools. Finding capacity of objects Apply units of measurement Convert between litres, millilitres	Bk 1 No. 24a (pp. 75)		
16	CAPACITY/VOLUME Practical Measuring Estimate and practically measure 3-D objects using measuring instruments such as:– measuring spoons– measuring cups,– measuring jugs Record, compare and order capacity and volume of 3D objects in (ml) and litres (l)	Comparing capacity and volume. Record results of problem-solving	Bk 1 No. 24b (pp. 76)		
17	CAPACITY/VOLUME Practical Measuring Calculations and problem- solving Solve problems in contexts involving capacity/volume Convert between millilitres and litres limited to examples with whole numbers and fractions	Comparing capacity and volume. Record results of problem-solving	Bk 1 No. 24b (pp. 77)		
18	Assessment Activity: Consolidate and revise – assess learners fraction understanding, remediate for understanding – use SM Activities				
Reflection					

DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO:	What will you change next time? Why?
• Finding capacity/ volume of objects • Show length, width and height of blocks • Using appropriate measuring tools. • Apply units of measurement • Convert between litres, millilitres • Comparing capacity and volume. • Record results of problem-solving	**Struggling Learners names:**
	HOD: **Date:**

1 – 5 November 2021

	Week 4				
Day	**ATP Content**	**CAPS content, concepts, skills**	**DBE workbook**	**Resour ces**	**Date**
19	TIME: Reading time and time instruments: Read, tell and write time in 12-hour and 24-hour formats on both analogue and digital instruments in:– hrs– mins – secs Instruments include clocks, watches and stopwatches. Reading calendars	Calculate time in am and pm. Use analogue instrument Use digital instrument.	Bk 1 No. 20a (pp. 60 & 61)		
20	TIME: Reading time and time instruments: Read, tell and write time in 12-hour and 24-hour formats on both analogue and digital instruments in:– hrs– mins – secs Instruments include clocks, watches and stopwatches. Reading calendars	Calculate differences in time using hrs and mins.	Bk 1 No. 20b (pp. 62)		
21	TIME: Reading time and time instruments: Read, tell and write time in 12-hour and 24-hour formats on both analogue and digital instruments in:– hrs– mins – secs Instruments include clocks, watches and stopwatches. Reading calendars	Calculate differences in time using hrs and mins.	Bk 1 No. 20b (pp. 63)		
22	TIME: Calculations and problem-solving time include problems in contexts involving time, calculation of time intervals where time is given in: – seconds and/or minutes, minutes and/or hours– hours and/or days – days, weeks and/or months, years and/or decades	Calculate time in years, decades	Bk 1 No. 21 (pp. 64)		
23	TIME: Calculations and problem-solving time include problems in contexts involving time, calculation of time intervals where time is given in: – seconds and/or minutes, minutes and/or hours– hours and/or days – days, weeks and/or months, years and/or decades	Calculate time in years, decades	Bk 1 No. 21 (pp. 65)		

24	Assessment Activity: Consolidate and revise – assess learners fraction understanding, remediate for understanding – use SM Activities	

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Calculate time in am and pm. • Use analogue instrument • Use digital instrument. • Calculate differences in time using hrs and mins. • Calculate time in years, decades	What will you change next time? Why? **Struggling Learners Names**:
	HOD: **Date:**

8 – 12 October 2021

Week 5					
Day	ATP Content	concepts, skills	DBE workbook	Resources	Date
25	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	Describe the difference between ratio and rate Solve problems in context	Bk 1 No R7a (pp. xxiv & xxv) No R7b (pp. xxvi & xxvii)		
26	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	Solve fraction problems in measurement	Bk 1 No R9 (pp. xxx & xxxi)		
27	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and	Solve problems in a financial context Solving money problems using a budget	Bk 1 No R10 (pp. xxxii & xxxiii) Bk 2 No. 83 (pp. 44 & 45)		

Day	ATP Content	concepts, skills	DBE workbook	Resources	Date
	equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)				
28	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	solve money problems solve problems in financial context.	Bk 1 No 32 (pp. 100 & 101) No. 33 (pp. 102 & 103)		
29	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	Solving fraction problems in different contexts Solving fraction problems in measuring contexts/ capacity	Bk 2 No 73 (pp. 18 & 19) No 77 (pp. 28 & 29) No. 78 (pp. 30 & 31)		
30	Assessment Activity: Consolidate and revise – assess learners fraction understanding, remediate for understanding – use SM Activities				

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: • Describe the difference between ratio and rate • Solve problems in context • Solve fraction problems in measurement • Solve problems in a financial context • Solving money problems using a budget • solve money problems • Solving fraction problems in different contexts • Solving fraction problems in measuring contexts/ capacity	What will you change next time? Why? **Struggling Learner names:** HOD: Date:

15 – 19 November 2021

Week 6					
Day	ATP Content	concepts, skills	DBE workbook	Resources	Date
31	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts–	Using grouping and sharing to solve problems	Bk 1 No. 18a (pp. 54 & 55) No. 18b (pp. 56 & 57)		

	measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)		No. 59a (pp. 164 & 165)		
32	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	Using grouping and sharing to solve fraction problems	Bk 1 No 36 (pp. 108 & 109) Bk 2 No. 115 (pp. 126 &127) No 116 (pp. 128 & 129)		
33	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	Solve rate problems Solve ratio problems	Bk 1 No. 45 (pp. 132 & 133) No. 60 (pp. 166 & 167)		
34	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	Solving problems in financial contexts Solving problems involving division	Bk 2 No. 110 (pp. 108 & 109) No. 126a (pp. 150 & 151) No. 126b (pp. 152 & 153)		
35	USE ALL FOUR BASIC OPERATIONS TO SOLVE PROBLEMS IN CONTEXT NUMBER SENTENCES SOLVING PROBLEMS- Solve problems in contexts involving whole numbers and fractions, including:– financial contexts– measurement contexts– fractions, including grouping and equal sharing– comparing two or more quantities of the same kind (ratio)– comparing two quantities of different kinds (rate)	Using fractions of whole numbers to solve problems	Bk 2 No. 114a (pp. 122 & 123) No. 114b (pp. 124 & 125)		
36	Complete and consolidate the week's assessment and work.				
Reflection					

DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO:	What will you change next time? Why?
• Using grouping and sharing to solve problems • Using grouping and sharing to solve fraction problems • Solve rate problems • Solve ratio problems • Solving problems in financial contexts • Solving problems involving division • Using fractions of whole numbers to solve problems	**Struggling Learners Names:**
	HOD: **Date:**

22 – 26 November 2021

Week 7					
Day	**ATP Content**	**concepts, skills**	**DBE workbook**	**Resources**	**Date**
37	Consolidation assessment 1				
38	Remediation				
39	Skills Mastery assessments 11 and 12				
40	Consolidation assessment 2				
41	Remediation				
42	Assessment activity: remediation of concepts which some learners have not fully understood and enrichment cards for the learners who are on track				
Reflection					
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? WHAT ARE THEY ABLE TO MASTER:	What will you change next time? Why? **Struggling Learners Names:**				
	HOD: **Date:**				

29 November – 3 December 2021

Week 8					
Day	**ATP content**	**concepts, skills**	**DBE workbook**	**Resources**	**Date**
43	Consolidation assessment 3				

44	Remediation				
45	Skills Mastery assessments – selected items from term 3				
46	Consolidation assessment 4				
47	Remediation				
48	Assessment activity: remediation of concepts which some learners have not fully understood and enrichment cards for the learners who are on track				

Reflection	
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? WHAT SKILLS ARE THEY ABLE TO MASTER?	What will you change next time? Why? Struggling Learners Names:
	HOD: Date:

6 – 10 December 2021

Week 9					
Day	ATP content	concepts, skills	DBE workbook	Resources	Date
49	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
50	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
51	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
52	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
53	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
54	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				

Reflection	
	What will you change next time? Why?
	HOD: Date:

13 – 15 December 2021 (three-day week)

Week 10					
Day	ATP content	concepts, skills	DBE workbook	Resources	Date
55	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
56	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
57	FORMAL ASSESSMENT TASK TEST – term 3 and 4 concepts				
58					
59					
60					

Reflection	
Identify some skills that need revising during the next term in 2022	What will you change next time? Why? **Struggling Learners Names:**

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:
   • There is ONE FORMAL Assessment tasks: 1) Test
   • 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	Skills Mastery Activities (Tuesdays and Thursdays)	Formative Assessment Activities: Aimed to enhance Revision Programme
1	Baseline Assessment	Baseline Assessment

2	**Tuesday** Skills mastery Assessment 1 **Thursday** Skills mastery Assessment 2	
3	**Tuesday** Skills mastery Assessment 3 **Thursday** Skills mastery Assessment 4	
4	**Tuesday** Skills mastery Assessment 5 **Thursday** Skills mastery Assessment 6	
5	**Tuesday** Skills mastery Assessment 7 **Thursday** Skills mastery Assessment 8	
6	**Tuesday** Skills mastery Assessment 9 **Thursday** Skills mastery Assessment 10	
7	**Lesson 3** Skills mastery Assessment 11 Skills mastery Assessment 12	**Lesson 1 and 2:** Consolidation Assessment 1 plus Remediation **Lesson 4 and 5:** Consolidation Assessment 2 plus Remediation
8	**Lesson 3** Selected items for SMA	**Lesson 1 and 2:** Consolidation Assessment 1 plus Remediation **Lesson 4 and 5:** Consolidation Assessment 2 plus Remediation
9		FORMAL ASSESSMENT TASK – Test
10		**FORMAL ASSESSMENT TASK – Test**

Exemplar Written Assessment ITEMS with marking memos.

The exemplar items can be used as a baseline diagnostic pre-assessment, but can be used, later in the term, as a post-assessment to monitor learning.

The skills mastery items can be used as a secondary assessment, both to monitor progress in learning skills and mastery of skills. For example, the teacher can select 5 items from the first three Skills Mastery Assessments (a selection from 15 items) and use it for end of week assessments. End-of-week days have been planned for this purpose, as well as for consolidating the learning of the week's content.

- Written assessments is to be done in addition to oral and practical assessment to carry out meaningful continuous assessment throughout the term.
- You need to plan when you will do a written assessment. We suggest you do it at the end-of week.
- The questions provided in the exemplar and Skills Mastery Assessments are taken from past written assessment papers and assessments generally, that were previously in the

lesson plans. We suggest you use selected items as smaller written assessment tasks. This aligns better with the curriculum objective of continuous assessment.

- • 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.

ITEM BANK FOR DIAGNOSTIC: EXEMPLAR

Surname:	
Name:	
Date of birth:	Date: _____ 37

INSTRUCTIONS TO LEARNERS:

1. The use of calculators and cellphones is not allowed.

2. Do your calculations and/or write your answers in the spaces provided.

3. Duration of examination: **30 Minutes.**

SECTION 1: Mental mathematics   7 marks

1. 12 000 + 3 + 5 000 + 40 + 200

    = _____   (1)

2. Is 5 a factor of 100?

    _____   (1)

3. Fill in > ; < ; or =

    356 178_____356 187   (1)

4. Fill in the missing number: $(5 + 3)$ x_____= 56   (1)

5. Is $19 + 6 = 45 - 20$

    _____   (1)

6. Round off 745 863 to the nearest 1 000

(1)

_____

7. 3 600 ÷ 100

(1)

= _____

SECTION 2: OPERATIONS   12 marks

- Write the answers in the spaces provided and show all your working out
- You may use **ANY** method
- 1 mark for working out and 2 marks for the correct answer

8. **34 188 + 38 569 =**   (3)

_____

_____

_____

9. **72 757 – 38 569 =**   (3)

_____

_____

_____

10. **867 X 38 =**   (3)

_____

_____

_____

11. **497 ÷ 26 =**   (3)

_____

_____

_____

_____

SECTION 3: FRACTIONS   5 marks

- Use the fraction wall to help you answer the following questions

1											
$\frac{1}{2}$						$\frac{1}{2}$					
$\frac{1}{3}$				$\frac{1}{3}$				$\frac{1}{3}$			
$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$		
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$			
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$				
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$		
$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$

19
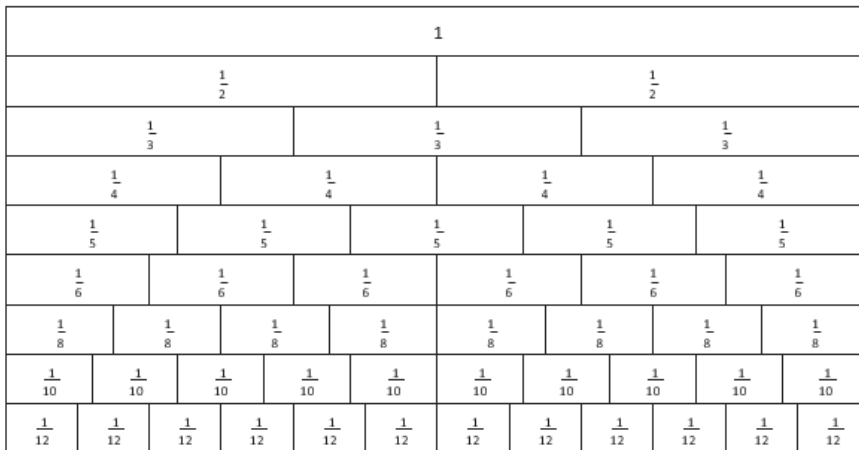
12. Fill in the missing number $\frac{6}{12} = \frac{}{2}$ (1)

13. Use the fraction wall to write these fractions from the biggest to the smallest

$\frac{1}{8}$, $\frac{1}{6}$, $\frac{1}{2}$, $\frac{1}{10}$ (1)

14. Find the answer to $1\frac{3}{4} + 1\frac{2}{4}$ (2)

15. What is $\frac{2}{3}$ of 24 (1)

MEASUREMENT

16 What is the **perimeter** of this rectangle?

10 cm

5 cm

_____ (1)
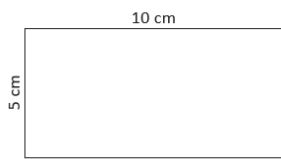
17. What is the **area** of this triangle?
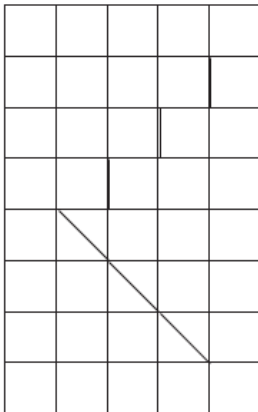
_____ (2)

18 Dineo makes a shape using cubes of 1 cm.

She has 4 layers with 6 cubes in each layer.

What is the volume of her shape?

_____
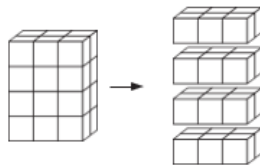
_____ (2)

19 Your teacher runs 21 km. How many metres is this?

_____ (1)

20 School ends at 1o'clock. Write this as a digital time.

_____ (1)

PATTERNS, FUNCTIONS AND ALGEBRA

21. Study the pattern shown below:

Pattern 1   Pattern 2   Pattern 3   Pattern 4
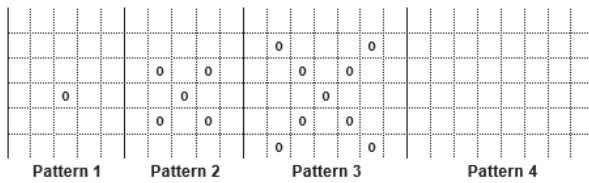
1 Complete the pattern by drawing Pattern 4. (1)

2 The number of circles in Patterns 1, 2 and 3 are filled in on the table below.

Fill in the number of circles used for Pattern 4 and Pattern 5 on the table.

Pattern	1	2	3	4	5
Number of circles	1	5	9	___	___

(2)

22. Look at the pattern in the flow chart below

INPUT	RULE	OUTPUT
1		6
3		10
5		14
9		___
11		___
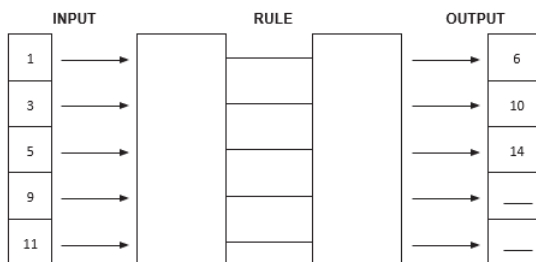
1 Work out the 2 step rule and fill it in on the diagram.

_____

_____

_____ (2)

2 Find the output values for 9 and 11 and fill them in on the diagram.

_____

_____

_____ (2)

SOLUTIONS AND MEMORANDUM

Note 1: The last column in the memorandum shows the **cognitive level** for each question in the examination. The levels are:

K	Knowledge: straight recall; use of mathematical facts and vocabulary; rounding off.
RP	Routine procedure: perform well known procedures; simple applications.
CP	Complex procedure: problems involving complex calculations and/or higher order reasoning.
PS	Problem solving: non-routine problems; higher order understanding and processes.

Note 2: The third column in the memorandum shows the **content area** for each question in the examination. The key for the content areas is:
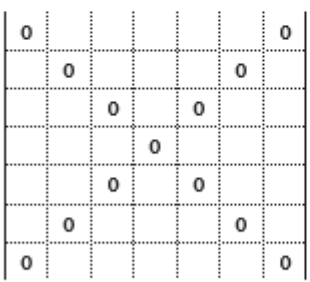
1	Numbers, operations and relationships
2	Patterns, functions and algebra
3	Space and shape
4	Measurement
5	Data handling

Questions	Marks	Content area	Cognitive level
SECTION 1: Mental mathematics			7 marks
1. 12 000 + 3 + 5 000 + 40 + 200 = **17 243** ✓	(1)	**1**	K
2. Is 5 a factor of 100? **Yes** ✓	(1)	**1**	K
3. Fill in > ; < or = **35 678** ≤ ✓ **3 5 687**	(1)	**1**	K
4. (5 + 3) x **7** ✓ = 56	(1)	**1**	K
5. Is 19 + 6 = 45 – 20 **Yes (both sides are equal to 25)** ✓	(1)	**1**	K
6. Round off 45 863 to the nearest 1 000 **46 000** ✓	(1)	**1**	K
7. 3 600 ÷ 100 = **36** ✓	(1)	**1**	K

Questions	Marks	Content area	Cognitive level
SECTION 2: Operations			12 marks

8.   **34 188 + 38 569 =**
1 mark for the correct place value
2 marks for the correct answer
 	
30 000 + 4 000 + 100 + 80 + 8
30 000 + 8 000 + 500 + 60 + 9
= <u>60 000 + 12 000 + 600 + 140 + 17</u>✓
 	
60 000 + 10 000 + 2 000 + 600 + 100 + 40 + 10 + 7
= 70 000 + 2 000 + 700 + 50 + 7
= <u>72 757</u> ✓✓
 	
OR
 	
TTh TH H T U
  ¹3 4 ¹1 ¹8 8   ✓
+ 3 8 5 6 9
   7 2 7 5 7 ✓✓
	(3)	**1**	RP

9.   **72 757 – 38 569 =**
1 mark for the correct place value
2 marks for the correct answer
 	
  60 000   12 000   600   140 17
<u>70 000</u> + 2 000 + 700 + 50 + 7
(30 000 + 8 000 + 500 + 60 + 9)
= <u>30 000 + 4 000 + 100 + 80 + 8</u>✓
 	
30 000 + 4 000 + 100 + 80 + 8
= 34 188 ✓✓
 	
OR
 	
TTh TH H T U
  6⁷ 1⁷ 6⁷ ¹⁴5 1⁷   ✓
+ 3 8 5 6 9
   3 4 1 8 8 ✓✓
	(3)	**1**	RP

Questions	Marks	Content area	Cognitive level
10. **867 x 38 =** = (867 x 40) − (867 x 2) = 867 x 4 x 10 − (double 867) ✓ = 34 680 − 1 734 = __32 946__ ✓✓ **OR** 867 x 38 = (867 x 30) + (867 x 8) ✓ = (867 x 3 x 10) + (867 x 2 x 2 x 2) = 26 010 + 6 936 = __32 946__ ✓✓	(3)	**1**	RP

11. **497 ÷ 26 =**
 	
 Divide 497 into groups of 26   497
 Subtract 10 × 26 = 260   − 260   10
                                  237
 Subtract 5 × 26 = 130   − 130   5
                                  107
 Subtract 2 × 26 = 52   − 52   2
                                   55
 Subtract 2 × 26 = 52 ✓   − 52   2
                                   3   19
 So 497 ÷ 26 = 19 remainder 1 ✓✓
 	
 1 x 26 = 26
 2 x 26 = 52
 3 x 26 = 78
 4 x 26 = 104
 5 x 26 = 130
 (half of 260)
 10 x 26 = 260
	(3)	**1**	RP

Questions	Marks	Content area	Cognitive level
SECTION 3: Fractions			5 marks
12. $\frac{6}{12} = \frac{1}{2}$ ✓	(1)	**1**	RP
13. $\frac{1}{2} : \frac{1}{6} : \frac{1}{8} : \frac{1}{10}$ ✓	(1)	**1**	RP

14. $1\frac{3}{4} + 4\frac{2}{4}$ **OR** $1\frac{3}{4} + 4\frac{2}{4}$
 	
    $= 5\frac{5}{4}$ ✓ $= \frac{7}{4} + \frac{18}{4}$
 	
    $= 6\frac{1}{4}$ ✓ $= \frac{25}{4}$ ✓
 	
                   $= 6\frac{1}{4}$ ✓
	(2)	**1**	RP

15. $\frac{1}{3}$ of 24 = 8 So $\frac{1}{3}$ of 24 = 2 x 8 = **16** ✓	(1)	**1**	RP

SECTION 5: Measurement				7 marks
16. Perimeter = **30 cm** ✓ (10 cm + 10 cm + 5 cm + 5 cm)	(1)	4	RP
17. Area = **9 squares** ✓✓ (6 whole squares + 6 half-squares)	(2)	4	CP
18. **24 cubes** ✓✓	(2)	4	CP
19. 21 km = **21 000 m** ✓	(1)	4	RP
20. 1 o'clock = **13:00** OR **1.00pm** ✓	(1)	4	RP
SECTION 6: PATTERNS				7 marks
21. 21.1 *1 mark for correctly drawing Pattern 4* ✓	(1)	2	CP

Pattern 4

21.2	Pattern	1	2	3	4	5			
	Number of circles	1	5	9	13 ✓	17 ✓	(2)	2	CP

22. 22.1 Rules: +2 ✓ x 2 ✓	(2)	2	CP
22.2 **22** ✓	(1)	2	CP
26 ✓	(1)	2	CP

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 PER 5-ITEM ASSESSMENT

SM Assessment 1	**Growing patterns** **Fill in the missing numbers** **Use a rule to complete a number sequence** **Number sequences: mixed review** **Division and Multiplication**
SM Assessment 2	**Time: Draw hands on the clocks** **Write the times in minutes and seconds** **Place Value up to 100 000** **Which number in the pattern comes next?** **Flow Diagram**
SM Assessment 3	**Activities to consolidate the Bonds and factors.** **Focus: Repeated addition, leading to multiplication.** **Name the different 3D shapes**
SM Assessment 4	**Rounding off to the nearest 1000** **Perimeter of a rectangle** **Tell time 24 hours** **Fill in the number line - fractions**
SM Assessment 5	**Label the fraction showing numerator and denominator** **Fill in the missing answers – fractions** **Arrange the numbers from smallest to biggest** **Prime factors**

SM Assessment 6	**Addition, subtraction, multiplication and division terms** **Compare decimals** **Order fractions with like numerators or denominators** **Order fractions** **Find smaller or larger fractions**
SM Assessment 7	**Replace by adding bigger, smaller or equal** **Addition patterns over increasing place values** **Choose numbers with a particular sum** **Find intervals in number sentences**
SM Assessment 8	**Flow diagrams** **Litres/millilitres** **Word sums** **Fractions**
SM Assessment 9	**Multiplication – Associative property** **Find the value of a variable** **List from smallest to biggest** **Multiplying by 10**
SM Assessment 10	**Number pattern** **Input/output tables - write the rule - up to ten thousand**
SM Assessment 11	**Factors of 48** **Perimeter** **Tessellation** **Draw the next pattern**
SM Assessment 12	**Make drawings to show multiplication grouping** **Number Operations** **Definitions: addition, subtraction, multiplication and division** **Word sum**

SKILLS MASTERY EXEMPLARS

Skills Mastery (SM) Assessment

Number   Assessment

1.

1. Solve (without a calculator).

    a. $1,035 \div 23$

    b. 492×832

2.

The next number in the number sequence

213 972 ; 214 972 ; 215 972 ; ...,   is ...

A   215 072

B   216 982

C   216 972

D   214 072

3.

Fill in the missing number in each number sentence:

12.1   70 x 8 = 10 x _____

12.2   17 + 13 + 104 = 13 + 17 + _____ + 4

4.

Emma bought firework rockets. Some rockets exploded into 3 stars and some made 4 stars. How many rockets of each kind were fired to make 15 stars altogether?

5.

Answer <, > or =

a. 194 578 |_____| 184 587

b. 14 680 |_____| 15 680

c. 10 900 |_____| 10 090

SM Assessment 2

Number   Assessment

1.

Draw the hands on the second clock so the time is 25 minutes later.

2.

Write the times in minutes and seconds.

525 seconds   _____

2.

Write the times in minutes and seconds.

525 seconds _____

3.

Which number consists of the following:
6H + 4Th + 2T + 9Tth + 5U

A. 49 625   B. 94 265   C. 49 265   D 94 625

4.

Which number comes next in the number pattern 46, 51, 57, 64,
A. 83   B. 69   C. 72   D. 75

5.

2.1 Complete the flow diagram by writing down the answer

Input
6

Output

X 6   ÷ 3

6

10
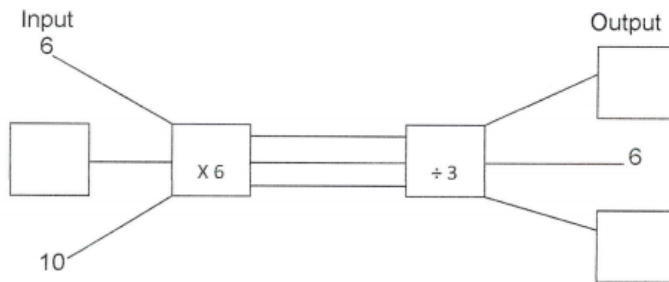
SM Assessment 3

Number Assessment
1.

Complete these number sentences:

1   5 x (2 + 7) = (5 x 2) + ([   ])

2   4 + (2 + 9) = (4 + 2) + [   ]
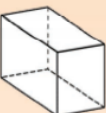
2.

$6\frac{1}{4} + 2\frac{2}{4} =$

3.

Find the difference between 65 872 and 54 195.

4.

Number	Add 1 000	Subtract 1 000	Add 10 000	Subtract 10 000
19 564				
23 487				

5.

Name the following 3-D objects.

b.

Number   Assessment

1.
   Round 6 942 to the nearest 1000 = [   ]

2.
   Calculate perimeter of this rectangle.

   42cm

   [   ]   12cm
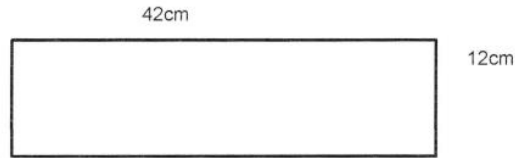
3.
   What is the time on the clock below in 24 hours?

   _____

4.
   Calculate

   What is $\frac{3}{7}$ of 42 balls ?

5.
   Complete labelling the number line below by filling in the fractions.

   a.

   1   0
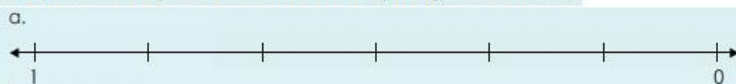
SM Assessment 5

Number   Assessment

1.
   Label the fraction showing the numerator and denominator.

   $\frac{2}{5}$

2.
   Fill in the missing information.

   $3\frac{9}{10} - 2\frac{3}{10} =$ [   ]   b. $5\frac{2}{3} +$ [   ] $= 7$

3.

Arrange the numbers from smallest to biggest (ascending order).

42 050   45 255   42 005   42 500   42 000   42 555

_____

4.

$42 \div 7 \times 7 =$ _____

Remember division is the opposite of multiplication.

5.

Factor the following numbers to their prime factors.

a. 26
/ \

SM Assessment 6

Number   Assessment

1.

Our family goes out for pizza night. My brother brings home $\frac{3}{8}$ of his pizza, my sister $\frac{4}{8}$ and I bring home $\frac{5}{8}$. How much did we bring home altogether?

5.

a. $\frac{5}{6} = \frac{}{20}$	**b.** $\frac{2}{7} = \frac{}{28}$

Number   Assessment

1.

Replace the $*$ by $>$, $<$ or $=$ to make the following statement true:

$$\frac{3}{8} * \frac{1}{2} \quad \underline{\hspace{4cm}}$$

2.   True or False?

3(5 +6) = (3 x 5) + (3 x 6) _____

3.

What will the next number in the number pattern be?

1 ; 3 ; 2 ; 4 ; 3 ; 5 ; ____ .

4.

Complete: 3 460 mℓ = _____ ℓ _____ mℓ.

5.   **Round off** 347 652 to the nearest ten thousand.

SM Assessment 8

Number   Assessment

1.
Fill in the missing numbers.

INPUT   RULE   OUTPUT

4

6 →   x7   →b. _____

8

a. _____

b. _____

c. _____
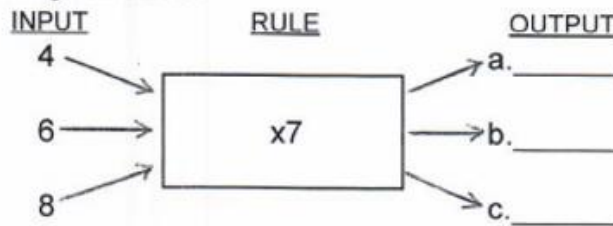
2.   Fill in the correct answers.

a.   24 l   = _____ ml

b.   39000 ml   = _____ l

3.
For every 4 biscuits that Peter gets, John gets 3 biscuits.
Share 56 biscuits between them. NB Write the Ratio of Peter : John.

4.
Mrs. Perkins makes study guides for her class of 21 students. She uses 252 sheets of paper. How many sheets of paper are in each study guide?

A.   12 sheets
B.   231 sheets
C.   273 sheets
D.   5,292 sheets

5.
How fast can you complete the following?

$3\frac{1}{4} + 1\frac{2}{4} = \boxed{4\frac{3}{4}}$ $1\frac{3}{9} + 2\frac{5}{9} = \boxed{}$ $2\frac{2}{10} + 4\frac{4}{10} = \boxed{}$

$1\frac{4}{6} + 7\frac{1}{6} = \boxed{}$ $3\frac{4}{8} + 4\frac{1}{8} = \boxed{}$ $7\frac{1}{5} + 2\frac{2}{5} = \boxed{}$

Number   Assessment

1. Which equation shows how to multiply $6 \times 5 \times 3$ using the associative property?

    A. $6 \times 5 \times 3 = 3 \times 5 \times 6$
    B. $(6 \times 3) + 5 = 6 \times (3 + 5)$
    C. $(6 \times 5) \times 3 = 6 \times (5 \times 3)$
    D. $(6 \times 5) + (6 \times 3) = (6 \times 3) + (6 \times 5)$

2. What is the value of w in the equation $116 - w = 95$?

    A. $w = 19$
    B. $w = 21$
    C. $w = 210$
    D. $w = 211$

3. Which list is in order from least to greatest?

    A. 1,000; 1,010; 1,009
    B. 1,010; 1,011; 1,100
    C. 1,100; 1,010; 1,001
    D. 1,010; 1,100; 1,001

5. What is the value of $12 - (3 + 5)$?

    A. 4
    B. 10
    C. 14
    D. 20

Number   Assessment

1. Fill in the next 2 numbers in the following number pattern.

    56 ; 49 ; 42 ; _____ ; _____.

2.

    How many matches are needed to make the 4th shape in the above pattern of matches?

32

3. Complete the table:

	Name of the object	Number of faces	Name the shape(s) of the faces

4.

5. **Say in each case whether there is a remainder or not, and if there is, then what it is. Show all your calculations in a writing book or on a piece of paper.**

   a. $338 \div 13 =$ b. $460 \div 26 =$ c. $873 \div 58 =$

SM Assessment 11

Number   Assessment

1.

Factors of 48:

2.

$253 \div 24 =$ ☐   **Write a number sentence.**

$$24\,\overline{)253} \quad \begin{array}{l} 10\,r\,13 \\ \underline{240} \\ 13 \end{array}$$

Show all your calculations.

$24 \times 10 = 240 + 13 = 253.$ **Check your answers**

James and his class decided to go to a restaurant for their end of year party. There are 23 learners in the class, including James. The bill was R575. How much did each learner have to pay?

3.

Rectangle	Perimeter in units	Length	Width	Perimeter in:
30 mm, 20 mm	10 units			mm: ☐ cm: ☐

5. Write down the numbers in each pattern. Draw the next pattern:

Number Assessment
1.

Pattern	1	2	3	4	5	6	7	8	9	10
Dots										

2. Look at the first example. Make your own drawings to show this.

a.	b.
$3 \times 5 = 5 \times 3$	$4 \times 2 = 2 \times 4$

3. Fill in the correct symbol.   ＋   －   x   ÷

a. 80 ⬜ 40 = 3 200   b. 50 000 ⬜ 200 = 50 200

4. Match column A with column B.
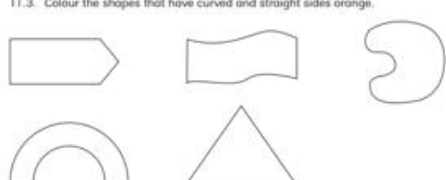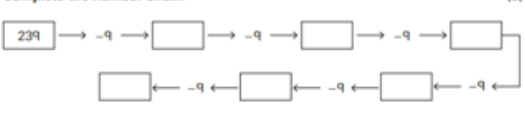
A	B
a. Addition	i. Share
b. Subtraction	ii. Product
c. Multiplication	iii. Increase by
d. Division	iv. Decrease by

5.
b. A farmer shares 654 apples equally amongst 45 shops. How many does each shop get? _____

c. A man struggles to sell his farm house. He decreases the original price by R10 456. He sells his house for R85 787. What was the original price? _____

34

CONSOLIDATION (REVISION) ASSESSMENTS FOR END OF TERM

GRADE 5: 20 Item Consolidation Assessment 1   **TERM 3 & 4**

1.

Use the number 25 986 and follow the instructions.

1.1. Add 4 500 to the number.   _____

1.2. Subtract 6 700 from the number.   _____

1.3. Round off the number to the nearest 1 000.   _____

(3)

---

11. Colour the shapes as indicated.   (5)

11.1. Colour the shapes that have only curved sides red.

11.2. Colour the shapes that have only straight sides blue.

11.3. Colour the shapes that have curved and straight sides orange.

---

2. Write the numbers in digits.   (4)

2.1. fourteen thousand, six hundred and twelve   _____

2.2. one hundred and six thousand, five hundred and nine   _____

2.3. seventy thousand and four   _____

2.4. five hundred and forty-two thousand, seven hundred and sixteen   _____

---

12. Draw the times on the clocks as indicated.   (4)

12.1. Draw the hands on the second clock so the time is 25 minutes later.

12.2. Draw the hands on the second clock so the time is 40 minutes earlier.

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3. Give the values of the underlined digits.   (3)

3.1. 34 567   _____

3.2. 79 481   _____

3.3. 976.42   _____

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13. Write the times in minutes and seconds.   (3)

13.1. 65 seconds   _____

13.2. 525 seconds   _____

13.3. 320 seconds   _____

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4. Complete the number chain.   (3)

239 → _9 → ☐ → _9 → ☐ → _9 → ☐

☐ ← _9 ← ☐ ← _9 ← ☐ ← _9 ←

5.	Write the numbers in expanded notation. (3) 5.1. 72 684 5.2. 40 096 5.3. 22 389	**15.**	**Think about prime numbers.** What is a prime number? (1)
6.	Build up the numbers. (3) 6.1. 4 000 + 60 + 90 000 + 200 + 8 _____ 6.2. 17 000 + 22 + 600 + 5 000 _____ 6.3. 5 000 + six hundred + 20 thousand + nine _____	**16.**	**Think about factors.** List the factors of 24 in factor pairs. (1)
7.	Replace the * with >, < or =. (5) 7.1. 1 011 * 11 011 _____ 7.2. 400 + 800 * 1 600 – 500 _____ 7.3. 5 972 * 5 000 + 70 + 90 + 2 _____ 7.4. 15 001 * 14 999 _____ 7.5. 25 009 – 10 * 24 999 _____	**17.**	These are the factors of 48. Highlight the prime factors. 1 2 3 4 6 8 12 16 24 48 (1)
8.	Arrange the numbers from smallest to biggest (ascending order). (2) 8.1. 42 050 45 255 42 005 42 500 42 000 42 555 8.2. 011 101 10 111 101 011 111 111 111 011 110 101	**18.**	Highlight the odd numbers. (1) 248 365 8 744 705 000 16 921
9.	Calculate. (5) 9.1. 172 = 100 + 60 + _____ 9.2. 54 – 15 = _____ + 15 = 54 9.3. 42 ÷ 7 × 7 = _____ 9.4. _____ ÷ 8 = 1 9.5. 387 – 142 = _____, therefore 245 + 142 = _____ Remember division is the opposite of multiplication.	**19.**	42 ÷ 7 = _____ (1)
10.	Name the shapes. (5) 10.1. 10.2. 10.3. 10.4. _____ or _____	**20.**	5 × _____ × 4 = 100 (1)
			TOTAL: 55 MARKS

MEMORANDUM

1.1.	30 486	(1)
1.2.	19 286	(1)
1.3.	26 000	(1)
2.1.	14 612	(1)
2.2.	106 509	(1)
2.3.	70 004	(1)
2.4.	542 716	(1)
3.1.	500	(1)
3.2.	70 000	(1)
3.3.	0,4 or $\frac{4}{10}$	(1)
4.	230 221 212 203 194 185	$(6 \times \frac{1}{2} = 3)$
5.1.	70 000 + 2 000 + 600 + 80 + 4	(1)
5.2.	40 000 + 90 + 6	(1)
5.3.	20 000 + 2 000 + 300 + 80 + 9	(1)
6.1.	94 268	(1)
6.2.	22 622	(1)
6.3.	25 609	(1)
7.1.	<	(1)
7.2.	>	(1)
7.3.	>	(1)
7.4.	>	(1)
7.5.	=	(1)
8.1.	42 000 42 005 42 050 42 500	
	42 555 45 255	(1)
8.2.	10 111 011 101 101 011 110 101	
	111 011 111 111	(1)
9.1.	12	(1)
9.2.	39	(1)
9.3.	42	(1)
9.4.	8	(1)
9.5.	245 and 387	$(2 \times \frac{1}{2} = 1)$
10.1.	hexagon	(1)
10.2.	kite	(1)
10.3.	parallelogram	(1)
10.4.	diamond or square	(2)
11.1.	Your child colours the third shape red.	(1)
11.2.	Your child colours the first and last shapes blue.	(2)
11.3.	Your child colours the second and fourth shapes orange.	(2)

12.1. (1)

12.2. (1)

13.1. 1 min 5 s (1)
13.2. 8 min 45 s (1)
13.3. 5 min 20 s (1)

15. A prime number is any number that
has only two factors, namely 1 and itself. (1)

16. 1, 24   2, 12   3, 8   4, 6 (1)
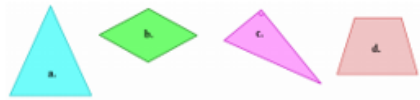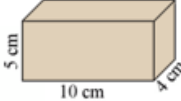
17. 2 3 (1)

¹248 365   16 921 (1)

19. 6 (1)
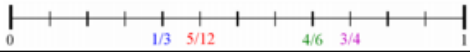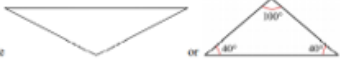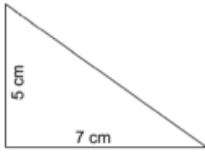
20. 5 (1)

1.	**a.** $1{,}035 \div 23$	**11.**	Plot the points from the "number rule" on the coordinate grid. The rule for *x*-values: Start at 0, and add 1 each time. The rule for *y*-values: Start at 1, and add 2 each time.

x	0	1				
y	1					

2.	**b.** 492×832

3.	Solve. **a.** $x - 56{,}409 = 240{,}021$	**13.**	Mark the fractions on the number line. $\frac{3}{4}$, $\frac{1}{3}$, $\frac{4}{6}$, $\frac{5}{12}$

4.	Place parentheses into the equations to make them true. **a.** $42 \times 10 = 10 - 4 \times 70$ **b.** $143 = 13 \times 5 + 6$	**14.**	If you can find an equivalent fraction, write it. If you cannot, cross the whole problem out. **a.** $\frac{5}{6} = \frac{}{20}$ **b.** $\frac{2}{7} = \frac{}{28}$ **c.** $\frac{3}{8} = \frac{15}{}$ **d.** $\frac{2}{9} = \frac{6}{}$
5.	Is 991 divisible by 4? Why or why not?	**15.**	Compare the fractions, and write $<$, $>$, or $=$ in the box. **a.** $\frac{6}{9} \,\square\, \frac{6}{13}$ **b.** $\frac{6}{13} \,\square\, \frac{1}{2}$ **c.** $\frac{5}{10} \,\square\, \frac{48}{100}$

39

6.	Factor the following numbers to their prime factors.	16.	Below you see two triangles and two quadrilaterals. Classify the triangles according to their sides and angles. Name the quadrilaterals.
	a. 26 /\ **b. 40** /\		a. _____ b. _____ c. _____ d. _____
7.	Round these numbers to the nearest thousand, nearest ten thousand, nearest hundred thousand, and nearest million.	17.	**a.** A square has a perimeter of 12 m. What is its area?

number	593,204	19,054,947
to the nearest 1,000		
to the nearest 10,000		
to the nearest 100,000		
to the nearest million		

18.	. Can an obtuse triangle be isosceles? If not, explain why not. If yes, sketch an example.
19.	**a.** Draw a right triangle with 5 cm and 7 cm perpendicular sides. **b.** Find its perimeter.

10.	Two liters of ice cream is divided equally into nine bowls. Calculate, to the nearest milliliter, how much ice cream is in *two* bowls.	20.	This is a rectangular prism. Find its volume. 5 cm, 10 cm, 4 cm

MEMORANDUM

1.	a. 45	11.	
2.	b. 409,344		

For 11.:

x	0	1	2	3	4	5
y	1	3	5	7	9	11

3.	a. $x = 296,430$	13.	A number line from 0 to 1 with marks at 1/3, 5/12, 4/6, 3/4.

4.	a. $42 \times 10 = (10 - 4) \times 70$ b. $143 = 13 \times (5 + 6)$	14.	

5.	No, it is not. Explanations vary. For example: It is an odd number, and therefore cannot be divisible by an even number. $991 \div 4 = 247$ R3, leaving a remainder, so 991 is not divisible by 4.	15.	a. $\dfrac{6}{9} > \dfrac{6}{13}$ b. $\dfrac{6}{13} < \dfrac{1}{2}$ c. $\dfrac{5}{10} > \dfrac{48}{100}$

6.	a. $26 = 2 \times 13$ b. $40 = 2 \times 2 \times 2 \times 5$	16.	a. an isosceles acute triangle b. a rhombus c. a right scalene triangle d. a trapezoid

7.

number	593,204	19,054,947
to the nearest 1,000	593,000	19,055,000
to the nearest 10,000	590,000	19,050,000
to the nearest 100,000	600,000	19,100,000
to the nearest million	1,000,000	19,000,000

17. a. 9 m^2

		18.	 Yes, it can. For example
		19.	Check the triangles the student drew. The student should use a tool, such as a triangular ruler or a protractor, to mark the right angle. The picture below may be slightly out of scale when printed, due to the possible scaling in the printing process. 5 cm · 7 cm 8.6 cm + 5 cm + 7 cm = 20.6 cm

10.	There are 444 milliliters in two bowls. Two liters is 2,000 ml. 2,000 ml ÷ 9 = 222.2 ml or about 222 ml.	20.	The volume is 5 cm × 10 cm × 4 cm = 200 cm^3.