

PLANNER & TRACKER FOR RECOVERY ANNUAL TEACHING PLAN (ATP)



MATHEMATICS

GRADE 6 TERM 3

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

2021



Department of Basic Education 222 Struben Street, Pretoria
Call Centre: 0800 202 933 callcentre@dbe.gov.za
Switchboard: 012 357 3000



basic education
Department
Basic Education
REPUBLIC OF SOUTH AFRICA



CONTENTS

ABOUT THE PLANNER AND TRACKER	3
ADJUSTED SCHOOL CALENDER	4
CONTENT COVERAGE	6
WEEKLY PLANNER AND TRACKER	7
ASSESSMENT RATIONALE AND RESOURCES	18
SKILLS MASTERY ASSESSMENTS	19
SKILLS MASTERY EXEMPLARS	22

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 6.
- 2) To ensure that meaningful teaching continues during the remaining teaching time as per the school calendar for TERM 3.
- 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 and term 2 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 and 2, must be viewed and implemented in term 3, 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 3 Planner and Tracker has 48 teaching and learning days (2 public holidays), of which 15 days are used for formative and summative Assessment days.
- NECT Term 3 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 6.
- 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, the project, some revision, and the term test should be completed by the end of Week 10.

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 3	Week 1 4 days	Week 2 5 days	Week 3 5 days	Week 4 5 days	Week 5 4 days	Week 6 5 days	Week 7 5 days	Week 8 5 days	Week 9 5 days	Week 10 5 days	Week 11 4 days
Hours per week	5 hrs.	6 hrs.	6 hrs.	6 hrs.	5 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	5 hrs.
Hours per topic	6 hrs	12 hrs		6 hrs.		6 hrs	9 hrs		6 hrs.	6 hrs.	5 hrs.
Topics, concepts and skills	LENGTH Practical measuring <ul style="list-style-type: none"> Estimate and practically measure 2-D shapes and 3-D objects using measuring instruments such as: <ul style="list-style-type: none"> rulers metre sticks tape measures trundle wheels Record, compare and order lengths of shapes and objects in millimetres (mm), centimetres (cm), metres (m), kilometres (km) Calculations and problem-solving <ul style="list-style-type: none"> Solve problems in contexts involving length Convert between millimetres (mm), centimetres (cm), metres (m) and kilometres (km) to include fraction and decimal forms (to 2 decimal places) 	PROPERTIES OF 2-D SHAPES Range of shapes <ul style="list-style-type: none"> Regular and irregular polygons <ul style="list-style-type: none"> triangles, squares, rectangles, parallelograms, other quadrilaterals, pentagons, hexagons, heptagons, octagons Similarities and differences between rectangles and parallelograms Features of shapes <ul style="list-style-type: none"> Describe, sort and compare 2-D shapes in terms of <ul style="list-style-type: none"> number of sides length of sides size of angles <ul style="list-style-type: none"> acute right obtuse straight reflex revolution Further activities <ul style="list-style-type: none"> Draw 2-D shapes on grid paper Draw circles, patterns in circles and patterns with circles using a pair of compasses 	TRANSFORMATIONS Describe patterns <p>Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/or rotations and/or reflections and/or translations when describing patterns</p> <ul style="list-style-type: none"> in nature from modern everyday life from our cultural heritage Enlargement and reductions <ul style="list-style-type: none"> Draw enlargement and reductions of 2-D shapes to compare size and shape of <ul style="list-style-type: none"> triangles quadrilaterals 	PROPERTIES OF 3-D OBJECTS Range of objects <ul style="list-style-type: none"> Recognize, visualize and name 3-D objects in the environment and geometric settings, focusing on: <ul style="list-style-type: none"> rectangular prisms cubes tetrahedrons pyramids similarities and differences between tetrahedrons and other pyramids Characteristics of objects <ul style="list-style-type: none"> Describe, sort and compare 3-D objects in terms of: <ul style="list-style-type: none"> number and shape of faces number of vertices number of edges Further activities <ul style="list-style-type: none"> Make 3-D models using: <ul style="list-style-type: none"> drinking straws, toothpicks etc. nets 	AREA, PERIMETER AND VOLUME Perimeter <ul style="list-style-type: none"> Measure perimeter using rulers or measuring tapes Measurement of area <ul style="list-style-type: none"> Continue to find areas of regular and irregular shapes by counting squares on grids Develop rules for calculating the areas of squares and rectangles Measurement of volume <ul style="list-style-type: none"> Continue to find volume/capacity of objects by packing or filling them Develop an understanding of why the volume of rectangular prisms is given by length multiplied by width multiplied by height Investigate: <ul style="list-style-type: none"> Relationship between perimeter and area of rectangles and squares. Relationship between surface area and volume of rectangular prisms 	CAPACITY AND VOLUME Practical Measuring <ul style="list-style-type: none"> Estimate and practically measure 3-D objects using measuring instruments such as: <ul style="list-style-type: none"> measuring spoons measuring cups, measuring jugs Record, compare and order capacity and volume of 3D objects in millilitres (ml), litres (l) and kilolitres (kl) Calculations and problem-solving <ul style="list-style-type: none"> Solve problems in contexts involving capacity/volume Convert between kilolitres, litres and millilitres to include fraction and decimal forms (to 2 decimal places) 	REVISION	FORMAL ASSESSMENT TASK TEST All topics			
Prerequisite skill or pre-knowledge	<ul style="list-style-type: none"> Estimating, measuring, recording, comparing and ordering length Use Measuring instruments. Units of length: Solve problems in contexts Conversions limited to whole numbers and common fractions 	<ul style="list-style-type: none"> Similarities and differences between squares and rectangles Recognize and describe angles in 2-D shapes: <ul style="list-style-type: none"> right angles angles smaller than right angles angles greater than right angles Describe, sort and compare 2-D shapes in terms of <ul style="list-style-type: none"> straight and curved sides number of sides lengths of sides angles in shapes, limited to right angles, angles smaller than right angles and angles greater than right angles 	<ul style="list-style-type: none"> 2D shapes Symmetry 	<ul style="list-style-type: none"> Similarities and differences between cubes and rectangular prisms Describe, sort and compare 3-D objects in terms of: <ul style="list-style-type: none"> shape of faces number of faces flat and curved surfaces 							

N.B. BY THE END OF TERM 3, LEARNERS SHOULD HAVE COMPLETED A PROJECT AND A TEST. SEE NOTES ON PROJECT FROM ABRIDGED SECTION 4 OF CAPS.

CORE QUESTIONS	DID ALL LEARNERS MASTER TERM 1 SKILLS?	DID ALL LEARNERS MASTER TERM 1 AND 2 SKILLS?	NEW CONCEPTS/CONTENT
----------------	--	--	----------------------

RECOMMENDATION	<ol style="list-style-type: none"> Implement at least two Skills Mastery (SM) formative assessments every week. Consolidation of Concepts – 10 minutes – twice a week apply 5-item SM assessments. Teacher – can use SM as individual, pair, small group, or whole class activity. Aim – to consolidate, remediate and work towards mastery. Record – monitor learners who have learning gaps in the REFLECTION section of the Tracker 	NEW CONCEPTS/CONTENT
----------------	---	----------------------

WEEKLY PLANNER AND TRACKER

RECOMMENDATION

BASELINE TERM 3: Implement DBE Baseline/Diagnostic – or any similar diagnostic – Based on term 1 and term 2 core skills. Meaning teachers can select different items in the diagnostics 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 6 = 15 - 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) Text books

26 – 30 July 2021

Week 1					
Lesson	ATP Content	concepts, skills	DBE workbook	Resources	Date
1		Baseline: (Revision, consolidation of term 1 and 2 skills)			
2		Baseline: Remediation – error analysis			
3	LENGTH Calculations and problem-solving: Solve problems in contexts involving length. Convert between (mm), (cm), (m) and (km) to include fraction and decimal forms (to 2 decimal places)	converting from m to km, km to m, measuring and estimating distance	Bk 1 No.R10 (pp. xxxiv – xxxv)		
4	LENGTH Calculations and problem-solving: Solve problems in contexts involving length. Convert between (mm), (cm), (m) and (km) to include fraction and decimal forms (to 2 decimal places)	Fractions through measurement, Converting from fraction to decimal, problems in context	Bk 1 No. 48 (pp. 128 – 129) No 49 (pp. 130 – 131)	Fraction Dominoes	
5	LENGTH Practical measuring: Estimate and practically measure 2-D shapes and 3-D objects using measuring instruments such as:– rulers– metre sticks – tape measures– trundle wheels. Record, compare and order lengths of shapes and objects in (mm), (cm), (m), (km)	Using different measuring instruments and units of measure	Bk 2 No. 99 (pp. 94 – 95)	Create a ruler	
6	LENGTH Calculations and problem-solving: Solve problems in contexts involving length. Convert between (mm), (cm), (m) and (km) to include fraction and decimal forms (to 2 decimal places)	Converting between lengths: Practical activities	Bk 2 No. 100a (pp 96 -97) No. 100b (pp 98 – 99)		

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: <ul style="list-style-type: none"> • Convert from metres to kilometres • Convert from km to m • Measure distances accurately using different measuring instruments • Estimate distances • Convert fractions to decimals 	What will you change next time? Why?
	Struggling Learners Names:
	HOD: Date:

2 – 6 AUGUST 2021

Week 2					
Lesson	ATP Content	concepts, skills	DBE workbook	Resources	Date
7	LENGTH Calculations and problem-solving: Solve problems in contexts involving length. Convert between (mm), (cm), (m) and (km) to include fraction and decimal forms (to 2 decimal places)	Round off length on number lines and in general	Bk 2 No 101 (pp. 100 – 101)		
8	LENGTH Calculations and problem-solving: Solve problems in contexts involving length. Convert between (mm), (cm), (m) and (km) to include fraction and decimal forms (to 2 decimal places)	Measurement and problem	Bk 2 No 102 (pp. 102 – 103)		
9	LENGTH Calculations and problem-solving: Solve problems in contexts involving length. Convert between (mm), (cm), (m) and (km) to include fraction and decimal forms (to 2 decimal places)	Measuring distance in kilometres	Bk 2 No. 103 (pp. 104 – 105) No. 104 (pp. 106 – 107)		
10	PROPERTIES OF 2-D SHAPES Range of shapes: Regular and irregular polygons – triangles, squares, rectangles, parallelograms, other quadrilaterals, pentagons, hexagons, heptagons, octagons Similarities and differences between rectangles and parallelograms	2-D and 3-D shapes: Identify and name shapes and label parts. Discuss nets	Bk 1 No. R14 (pp. x1ii – x1iii)	Shape hunt, venue, environment resources	
11	PROPERTIES OF 2-D SHAPES Range of shapes: Regular and irregular polygons – triangles, squares, rectangles, parallelograms, other quadrilaterals,	Drawing same shapes with different orientation	Bk 1 No. R15b (pp. x1vi – x1vii)		

	pentagons, hexagons, heptagons, octagons Similarities and differences between rectangles and parallelograms			
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?		
<ul style="list-style-type: none"> • Round off lengths on number line • Working with long distances • Identify and name 2-D shapes • Identify and name 3-D shapes • Identify nets of 3-D shapes • Drawing shapes by focusing on different orientations 		Struggling Learners Names?		
		HOD:		
		Date:		

10 – 13 August 2021 - 4-day week (skip the assessment activity at end of the week)

Week 3					
Lesson	ATP content	concepts, skills	DBE workbook	Resources	Date
13	PROPERTIES OF 2-D SHAPES Range of shapes: Regular and irregular polygons – triangles, squares, rectangles, parallelograms, other quadrilaterals, pentagons, hexagons, heptagons, octagons Similarities and differences between rectangles and parallelograms	identify curved sides, straight sides, differences in shapes. draw shapes from given info.	Bk 1 No. 18a (pp. 54 - 55) No. 18b (pp. 56 – 57)		
14	PROPERTIES OF 2-D SHAPES Features of shapes: Describe, sort and compare 2-D shapes in terms of – number of sides – length of sides – size of angles: acute, right Obtuse, straight, reflex, revolution Angles: Recognize and name the following angles in 2-D shapes: – acute – right – obtuse – straight – reflex – revolution	Describe angles and name angles. Describe shapes according to sides, lengths, right angles and number. Compare shapes and name	Bk 1 No. 18b (pp. 57) No. 18c (pp. 58 – 59)		
15	PROPERTIES OF 2-D SHAPES Further activities: Draw 2-D shapes on grid paper Draw circles, patterns in circles and patterns with circles using a pair of compasses	draw circles. Draw circles with different radii	Bk 1 No. 19a (pp. 60 – 61)		

16	PROPERTIES OF 2-D SHAPES Further activities: Draw 2-D shapes on grid paper Draw circles, patterns in circles and patterns with circles using a pair of compasses	Draw circles and measure radii in different units. Draw patterns of circles	Bk 1 No. 19b (pp. 62 – 63)		
17	PROPERTIES OF 2-D SHAPES Range of shapes: Regular and irregular polygons – triangles, squares, rectangles, parallelograms, other quadrilaterals, pentagons, hexagons, heptagons, octagons Similarities and differences between rectangles and parallelograms	Identify regular and irregular polygons. Name different quadrilaterals according to given info. Draw shapes on grid paper	Bk 2 No. 80 (pp. 50 – 51)		
18	Assessment Activity – can be cancelled because of four-day week				
Reflection					
DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO: <ul style="list-style-type: none"> Identify curved sides of 2-D and 3-D shapes Identify straight sides of 2-D and 3-D shapes Identify and name angles Identify and names shapes according to sides Identify and names shapes according to right angles Draw circles with different radii Draw patterns of circles 		What will you change next time? Why? Struggling Learners names:			
		HOD:		Date:	

16 – 20 August 2021

Week 4					
Day	ATP Content	CAPS content, concepts, skills	DBE workbook	Resources	Date
19	PROPERTIES OF 2-D SHAPES Features of shapes: Describe, sort and compare 2-D shapes in terms of – number of sides – length of sides – size of angles: acute, right Obtuse, straight, reflex, revolution Angles: Recognize and name the following angles in 2-D shapes: – acute – right – obtuse – straight – reflex – revolution	Right Angles: identify angles $<$, $>$ or $=$ to 90 degrees and name angles	Bk 2 No. 81 (pp. 52 – 53)		
20	PROPERTIES OF 2-D SHAPES Features of shapes: Describe, sort and compare 2-D shapes in terms of – number of sides – length of sides – size of angles: acute, right	Angles bigger and smaller than 90 degrees in real context. Use protractor to measure angles	Bk 3 No. 82 (pp. 54 – 55)		

	Obtuse, straight, reflex, revolution Angles: Recognize and name the following angles in 2-D shapes: – acute – right – obtuse – straight – reflex – revolution				
21	TRANSFORMATIONS Describe patterns: Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns – in nature – from modern everyday life – from our cultural heritage	Identify Reflection symmetry. Draw lines of symmetry	No. 38 (pp.104 – 105)		
22	TRANSFORMATIONS Describe patterns: Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns – in nature – from modern everyday life – from our cultural heritage	Common directions of symmetry	No 39 (pp 106 – 107)		
23	TRANSFORMATIONS Describe patterns: Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns – in nature – from modern everyday life – from our cultural heritage	Reflection, rotation and translation: examples in real contexts,	No 83 (pp. 56 – 57)		
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:		What will you change next time? Why?			
<ul style="list-style-type: none"> • Identify and name angles • Classify angles according to degrees • Measure using protractor • Determine lines of symmetry • Identify reflections • Identify rotations • Identify translations 		Struggling Learners Names:			
		HOD:		Date:	

23 – 27 AUGUST 2021

Week 5					
Day	ATP Content	concepts, skills	DBE workbook	Resources	Date
25	TRANSFORMATIONS Enlargement and reductions • Draw enlargement and reductions of 2-D	Identify changes in shapes, draw on grid paper.	No. 84a (pp. 58 – 59)		

	shapes to compare size and shape of – triangles – quadrilaterals	Calculate by how much is a shape enlarged or reduced (what Factor)	No. 84b. (pp.60 – 61)		
26	<p>TRANSFORMATIONS</p> <p>Describe patterns: Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns – in nature – from modern everyday life – from our cultural heritage</p>	<p>Transformations: Identify different transformations on grid paper</p>	No 136 (pp. 192 – 193)		
27	<p>TRANSFORMATIONS</p> <p>Describe patterns: Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns – in nature – from modern everyday life – from our cultural heritage</p>	<p>Reflection: Flip, turn and slide Draw lines of reflection</p>	<p>No. 137a (pp. 194 – 195) No. 137b (pp. 196 -197)</p>		
28	<p>TRANSFORMATIONS</p> <p>Describe patterns: Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns – in nature – from modern everyday life – from our cultural heritage</p>	<p>Rotation: turn. Draw fractional turns. Translation: slide on grid paper</p>	<p>No. 138a (pp. 198 – 199) No. 138b (pp.200 – 201)</p>		
29	<p>TRANSFORMATIONS</p> <p>Describe patterns: Refer to lines, 2-D shapes, 3-D objects and/or lines of symmetry and/ or rotations and/or reflections and/or translations when describing patterns – in nature – from modern everyday life – from our cultural heritage</p>	<p>Flip, turn and slide: Identify transformation of figures. Transformation and tangrams</p>	<p>No. 138c (pp. 202 – 203) No. 139 (pp.204 - 205)</p>		
30	Complete and consolidate the week's assessment and work. FORMAL ASSESSMENT- PROJECT				
Reflection					
<p>DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO:</p> <ul style="list-style-type: none"> • Identify enlargement of shapes • Identify reduction in shapes • Apply scale factor to changes in shapes • Identify transformations on grid paper • Draw lines of reflection • Identify a flip, a turn and a slide • Draw fractional turns 		<p>What will you change next time? Why?</p> <p>Struggling Learner names:</p>			
		HOD:		Date:	

Week 6					
Less	ATP Content	concepts, skills	DBE workbook	Resources	Date
31	<p>PROPERTIES OF 3-D OBJECTS</p> <p>Range of objects:</p> <p>Recognize, visualize and name 3-D objects in the environment and geometric settings, focusing on:– rectangular prisms</p> <p>– cubes– tetrahedrons– pyramids</p> <p>– similarities and differences between Tetrahedrons and other pyramids</p>	Identify curved sides, straight sides, differences in shapes and draw shapes	Bk 1 No. 18a (pp. 54 - 55) No. 18b (pp. 56 – 57)		
32	<p>PROPERTIES OF 3-D OBJECTS</p> <p>Range of objects:</p> <p>Recognize, visualize and name 3-D objects in the environment and geometric settings, focusing on:– rectangular prisms</p> <p>– cubes– tetrahedrons– pyramids</p> <p>– similarities and differences between Tetrahedrons and other pyramids</p>	Describe the differences between objects. Name and match nets with object	Bk 1 No. 33 (pp. 94 – 95)		
33	<p>PROPERTIES OF 3-D SHAPES</p> <p>Characteristics of objects:</p> <p>Describe, sort and compare 3-D objects in terms of:– number and shape of faces– number of vertices– number of edges</p>	Describe 3-D objects according to surfaces, faces, vertices and edges	Bk 1 No 34 (pp. 96 – 97)		
34	<p>PROPERTIES OF 3-D SHAPES</p> <p>Characteristics of objects:</p> <p>Describe, sort and compare 3-D objects in terms of:– number and shape of faces– number of vertices– number of edges</p>	3-D objects: Faces, edges and vertices	Bk 2 No. 121 (pp. 150 – 151)		
35	<p>PROPERTIES OF 3-D SHAPES</p> <p>Further activities:</p> <p>Make 3-D models using:– drinking straws, toothpicks etc.</p> <p>– nets</p>	3-D Objects: matching skeleton with object	Bk 2 No 122 (pp. 152 – 153)		
36	Assessment activity: Catch-up on work not completed; remediation of concepts which some learners have not fully understood and enrichment cards for the learners who are on track				
Reflection					
<p>DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO:</p> <ul style="list-style-type: none"> Identify curved sides in 3-D shapes Identify straight sides in 3-D shapes Draw different 3-D shapes Compare objects and name the differences Match nets with shapes Name number of faces, edges and vertices 		<p>What will you change next time? Why?</p> <p>Struggling Learners Names:</p>			

HOD:

Date:

6 – 10 SEPTEMBER 2021

Week 7					
Day	ATP Content	concepts, skills	DBE workbook	Reso urces	Date
37	AREA, PERIMETER AND VOLUME Perimeter: Measure perimeter using rulers or measuring tapes Measurement of area: Continue to find areas of regular and irregular shapes by counting squares on grids. Develop rules for calculating the areas of squares and rectangles	Find area in grids. Draw shape with given area, use rulers,	Bk 1 No. R11 (pp. xxxvi -xxxvii)		
38	AREA, PERIMETER & VOLUME Measurement of volume Continue to find volume/capacity of objects by packing or filling them Develop an understanding of why the volume of rectangular prisms is given by length multiplied by width multiplied by height	Volume, find volume of objects, estimate using real objects and converting from ml to litres	Bk 1 No. R12 (xxxviii – xxxix)		
39	AREA, PERIMETER AND VOLUME Perimeter: Measure perimeter using rulers or measuring tapes Measurement of area: Continue to find areas of regular and irregular shapes by counting squares on grids. Develop rules for calculating the areas of squares and rectangles	Square units and area	Bk 2 No 123a (pp 154)		
40	AREA, PERIMETER AND VOLUME Perimeter: Measure perimeter using rulers or measuring tapes Measurement of area: Continue to find areas of regular and irregular shapes by counting squares on grids. Develop rules for calculating the areas of squares and rectangles	Square units and area	Bk 2 No 123a (pp. 155)		
41	AREA, PERIMETER AND VOLUME Perimeter: Measure perimeter using rulers or measuring tapes Measurement of area: Continue to find areas of regular and irregular shapes by counting squares on grids. Develop rules for calculating the areas of squares and rectangles	Area and perimeter calculations	Bk 2 No.123b (pp. 156)		

42	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: <ul style="list-style-type: none"> • Calculate area of shape using grids • Draw shapes with given areas • Calculate volume • Estimate volume • Convert from millilitres to litres • Link square units to area calculations 		What will you change next time? Why? Struggling Learners Names:
HOD:		Date:

13 – 17 SEPTEMBER 2021

Week 8					
Day	ATP content	concepts, skills	DBE workbook	Resources	Date
43	AREA, PERIMETER AND VOLUME Perimeter: Measure perimeter using rulers or measuring tapes Measurement of area: Continue to find areas of regular and irregular shapes by counting squares on grids. Develop rules for calculating the areas of squares and rectangles	Area and perimeter calculations	Bk 2 No.123b (pp. 157)		
44	AREA, PERIMETER & VOLUME Measurement of volume Continue to find volume/capacity of objects by packing or filling them Develop an understanding of why the volume of rectangular prisms is given by length multiplied by width multiplied by height	Volume and area views of faces	Bk 2 No. 124 (pp 158)		
45	AREA, PERIMETER AND VOLUME Investigate: Relationship between perimeter and area of rectangles and squares. Relationship between surface area and volume of rectangular prisms	Volume and area views of faces	Bk 2 No. 124 (pp 159)		
46	AREA, PERIMETER AND VOLUME Investigate: Relationship between perimeter and area of rectangles and squares. Relationship between surface area and volume of rectangular prisms	Perimeter, length and width – understanding distance around	Bk 2 No. 125a (pp. 160 – 161)		
47	AREA, PERIMETER AND VOLUME Investigate: Relationship between perimeter and area of rectangles and squares. Relationship between surface area and volume of rectangular prisms	Calculating perimeter or width of different figures	Bk 2 No. 125 b (pp. 162 – 163)		
48	Complete and consolidate the week's assessment and work				

Reflection	
<p>DID ALL THE LEARNERS LEARN THE WEEKLY SKILLS? ARE THEY ABLE TO:</p> <ul style="list-style-type: none"> • Calculate area of shapes • Calculate perimeter of shapes • Identify volume and views of different shapes and faces respectively 	<p>What will you change next time? Why?</p> <p>Struggling Learners Names:</p>
HOD:	Date:

20 -23 SEPTEMBER 2021- 4-DAY WEEK THEREFORE NO ASSESSMENT

Week 9					
Day	ATP content	concepts, skills	DBE workbook	Resources	Date
49	<p>CAPACITY AND VOLUME</p> <p>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), (l) and (kl)</p>	Work with cubic unit, linking objects to single cubic units	Bk 1 No. 62 (pp. 160)		
50	<p>CAPACITY AND VOLUME</p> <p>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), (l) and (kl)</p>	Capacity and volume: cubic unit, linking objects to single cubic units	Bk 1 No. 62 (pp. 161)		
51	<p>CAPACITY AND VOLUME</p> <p>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), (l) and (kl)</p>	Estimating, measuring and recording capacity.	Bk 1 No. 63 (pp. 162 – 163)		
52	<p>CAPACITY AND VOLUME</p> <p>Calculations and problem- solving: Solve problems in contexts involving capacity/ volume Convert between kilolitres, litres and millilitres to include fraction and decimal forms (to 2 decimal places)</p>	Converting millilitres to kilolitres	No. 64a (pp 164 – 165)		

53	CAPACITY AND VOLUME Calculations and problem- solving: Solve problems in contexts involving capacity/ volume Convert between kilolitres, litres and millilitres to include fraction and decimal forms (to 2 decimal places)	Converting to record capacity	No 64b (pp. 166 – 167)		
54	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?			
<ul style="list-style-type: none"> • Link capacity and volume • Link cubic units to volume calculations • Estimate volume • Measure and record capacity of objects • Convert millilitres to kilolitres 					
		HOD:		Date:	

27 SEPTEMBER – 1 OCTOBER 2021

Week 10					
Day	ATP content	concepts, skills	DBE workbook	Resources	Date
55	Teacher selects content	Revision and consolidation (Skills mastery activities)			
56		FORMAL ASSESSMENT TASK: TEST – All topics			
57	Teacher selects content	Revision and consolidation (Skills mastery activities)			
58	Teacher selects content	Revision and consolidation (Skills mastery activities)			
59	Teacher selects content	Revision and consolidation (Skills mastery activities)			
60	Complete and consolidate the week's assessment and work				
Reflection					
Identify some skills that need revising during the next term:			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 are two FORMAL Assessment tasks: 1) Project and 2) Test
- The Skills mastery assessments – aimed at consolidating, revising and remediating skills already covered this year - are added at the end of the document.

Week	Informal Assessment (End of week) and Skills Mastery Activities (Tuesdays and Thursdays)	Formal Assessment Activities (End of week) – 2 FORMAL ASSESSMENTS: 1) Project 2) Test
1	Baseline Assessment	Baseline Assessment
2	Tuesday Skills mastery Assessment 1 Thursday Skills mastery Assessment 2	
3	No Informal Assessment – 4-day week 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	Formal Assessment 1 - Project
6	Tuesday Skills mastery Assessment 9 Thursday Skills mastery Assessment 10	
7	Tuesday Skills mastery Assessment 11 Thursday Skills mastery Assessment 12	
8	Tuesday Skills mastery Assessment 13 Thursday Skills mastery Assessment 14	
9	No Assessment – 4-day week Tuesday Skills mastery Assessment 15	

	Thursday Skills mastery Assessment 16	
10	Tuesday Skills mastery Assessment 17 Thursday Skills mastery Assessment 18	FORMAL ASSESSMENT 2 – Test (All Topics)

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

<u>SM Assessment 1</u>	Fill in the missing intervals on a number line: Fractions Flow Diagram: Addition up to ten thousand Divide whole numbers - two-digit divisors Divide whole numbers - three-digit divisors
<u>SM Assessment 2</u>	Word problems with multiple steps or extra or missing information Guess-and-check word problems Expanded notation: Addition Using 9 digits to formulate different 9-digit numbers from ascending order Round off to the nearest 10 and 100: 6-digit numbers
<u>SM Assessment 3</u>	Interpreting information and filling in cheques Place values and number sense Arrange numbers from smallest to biggest
<u>SM Assessment 4</u>	Add and subtract whole numbers up to millions Compare and convert metric units of mass Compare and convert metric units of volume
<u>SM Assessment 5</u>	Rounding off to the nearest five up to ten-thousands Add and subtract money amounts Fill in missing numbers in a table. Place Value Make largest number with one-digit number series Division
<u>SM Assessment 6</u>	Subtraction: Column method Rounding off Money combinations Fill in the missing number in the pattern
<u>SM Assessment 7</u>	Units of measurement Choose the appropriate metric unit of measure Capacity Convert and compare metric units Metric mixed units
<u>SM Assessment 8</u>	Interpret pictographs
<u>SM Assessment 9</u>	Metric mixed units Choose the more reasonable temperature Compare temperatures above and below zero
<u>SM Assessment 10</u>	Estimate angle measurements Classify triangles Identify trapeziums Classify quadrilaterals Find missing angles in triangles and quadrilaterals Compare and convert metric units of mass
<u>SM Assessment 11</u>	Place values in whole numbers Convert between place values

	<p>Round off Elapsed time Time units</p>
<u>SM Assessment 12</u>	<p>Prime or composite Identify factors Prime factorisation Write variable expressions Add and subtract money: word problems</p>
<u>SM Assessment 13</u>	<p>Flow Diagram: Multiplication and addition Classify triangles Nets of three-dimensional figures Front, side and top view Geometric patterns Time</p>
<u>SM Assessment 14</u>	<p>Common Fractions, Decimal fractions and percentages. Compare Complete a pattern in a pyramid. Flow Diagram: Decimals Solve the problem</p>
<u>SM Assessment 15</u>	<p>Front, side and top view Regular and Irregular Shapes. Identify angles smaller and bigger than 90 degrees.</p>
<u>SM Assessment 16</u>	<p>Fractions and Percentages on a square grid.</p>
<u>SM Assessment 17</u>	<p>Halving: Fractions Grouping Data by making use of tally and frequency Calculate mean, median, mode and range Interpret charts to find mean, median, mode and range Mean, median, mode and range: find the missing number Identify representative, random and biased samples</p>
<u>SM Assessment 18</u>	<p>Look at the number sequence and state the difference and describe the pattern. Give the next three numbers of the sequence Input/output tables - write the rule - up to 20 Measurement and Length</p>
<u>SM Assessment 19</u>	<p>Interpreting a bar graph Common fractions and percentages Directions</p>
<u>SM Assessment 20</u>	<p>Length of the pencil: cm/mm Round off to the nearest 100 000 Capacity Prime numbers Adding Fractions</p>

SKILLS MASTERY EXEMPLARS

Skills Mastery (SM) Assessment 1

Number Assessment

1.



- i. What do the intervals between 3 and 4 tell us? _____
- ii. How did you work it out? _____

2.

Show the following on the number lines.

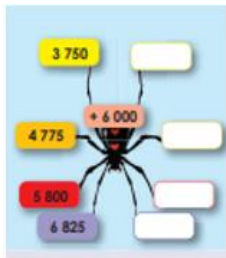
a. One and a half



b. Two and one quarter



3.



4.

	165	154	143	132	121	110	99	88	77	66
+ 11										

	1	2	3	4	5	6	7	8	9	10
x 30										

5.



SM ASSESSMENT 2

Number Assessment

1.

People sometimes speak of a half a million. What does that mean?

State whether the following is true or false:

- a. The South African population grows by more than 500 000 in a year.
- b. There are 12 500 000 people living in Gauteng.
- c. The South African government plans to upgrade 500 000 shacks by 2014.

2.

Complete the following:

a. $500 + 40 + 300\,000 + 5\,000 + 90\,000 + 1 =$

b. $6 + 900 + 9\,000 + 70 + 10\,000 + 400\,000 =$

c. $80 + 6 + 500 + 6\,000 + 400\,000 + 20\,000 =$

3.

Write in expanded notation. Use the digits 1 to 9 to make five different 9-digit numbers smaller than 500 000 000 but bigger than 200 000 000.


a.

b.

c.

d.

e.



4.

Round off to the nearest 10. Circle the digit which you look at when deciding whether to round up or down to the nearest 10. Complete the sentences.

a. 345 882 is between 345 880 and 345 890 and would be rounded to 345 880

b. 278 947 is between and and rounded to .

5.

Round off to the nearest 100. Circle the digit which you look at when deciding whether to round up or down to the nearest 100. Complete the sentences.

a. 345 882 is between 345 800 and 345 900 and would be rounded to 345 900

b. 278 947 is between and and rounded to .

SM ASSESSMENT 3

Number Assessment

1. Your father needs to pay some bills. Assist him and fill in the cheques.



2. **Between what two ten-thousands do the following numbers lie:**
- a. 14 789 b. 13 472
- c. 12 234 d. 15 893

3. **Give any number between**
- a. 20 000 and 30 000
- b. 30 000 and 40 000

4. **What is the value of the underlined digit?**
- a. 4 4 321 b. 233 3 32 c. 929 9 56
-

5. **Write the following from the smallest to the biggest (ascending order).**
- 254 562, 254 526, 254 625, 254 256

SM Assessment 4

Example 1:
 $36\ 864 + 9\ 654$
 $= 30\ 000 + 6\ 000 + 9\ 000 + 800 + 600 + 60 + 50 + 4 + 4$
 $= 30\ 000 + 15\ 000 + 1\ 400 + 110 + 8$
 $= 30\ 000 + 10\ 000 + 5\ 000 + 1\ 000 + 400 + 100 + 10 + 8$
 $= 40\ 000 + 6\ 000 + 500 + 10 + 8$
 $= 46\ 518$

Number Assessment

1. a. $145\ 345 + 32\ 453 =$

2. **Solve the following word problems.**
- a. The chicken farmer delivered 29 500 eggs on Monday and 32 700 on Tuesday. How many eggs are there in total?



3. **Would you weigh the following in grams or kilograms?**
- a. A dog:
- b. Sugar for baking a cake:

4. **Give three examples of each: Something that weighs:**
- between 1 kg and 2 kg.

5. **Write the following in grams.**
- $2\ \text{kg}\ 250\ \text{g} = 2\ 250\ \text{g}$
- $4\ \text{kg}\ 150\ \text{g} =$

SM Assessment 5

Number Assessment

1. Round off the numbers to the nearest 5.

a. 95 541	b. 25 387	c. 94 025
<input type="text" value="95 540"/>	<input type="text"/>	<input type="text"/>

Number	Add 1 000	Subtract 1 000	Add 10 000	Subtract 10 000
13 254				
18 654				

3. How much money do I have? if ___

a. I had R95,20. I spend R42,30. I earn R36,50.

4. a. $73 + 19 =$

$$\begin{array}{r} 1 \\ 25 \\ + 17 \\ \hline 42 \end{array}$$

5. $95\,312 + 2\,346 =$

SM Assessment 6

Number Assessment

Example:

$$\begin{array}{r} 2576 \\ - 1453 \\ \hline 11208 \end{array}$$

- Subtract the units.
- Note how we break down the 40 into 30 + 10. We then add the 10 to the 6; that gives us 16.
- Now we can subtract the units.
- Subtract the tens.
- Subtract the hundreds, thousands and ten thousands.

1. a. $95\,242 - 42\,135$ b. $62\,363 - 21\,057$

2. The first number below was rounded off to the second number. Was it rounded off to the nearest 5, 10, 100 or 1 000? (The answer could be more than one of the options.)

a. R83 was rounded off to R100.

b. R1 836 was rounded off to R1 840.

3. Give five different combinations of these money notes. Your combinations should be in rands or cents.

a. 

4. What number comes next?

72 500, 82 500, 92 500,

Number	Add 10	Add 100	Add 1 000	Add 10 000
136 999				

SM Assessment 7

Number

Assessment

1. **Word Problems**

We walked 120 000 mm from point A to B. We walked another 350 000 mm from point B to C. How far did we walk. Give your answer in mm and m. Which is more appropriate to use m or mm?

2. **Write an appropriate and interesting word sum for: 150 000 and 30 000. Solve it.**

3. A dairy farmer has a tank that can hold 2 kℓ of milk. At the moment there are 1,850 kℓ milk in the tank. He fills 5 litre bottles with milk. How many bottles can he fill?

4. Which view of the bus in the picture below is shown?



- A Top view
- B Side view
- C Front view
- D Back view

5. **786 254 + 473 874**

SM ASSESSMENT 8

Number Assessment

1. Look at the calendar. Answer the questions below.

November						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

2. a. Write down the dates the sun was shining brightly.

3. b. Do you think it was hot or cold on those days? Why?

4. c. Write down the dates it was raining.

5. d. Do you think it was hot or cold on those days? Why?

e. Write down the dates it was partly cloudy.

SM ASSESSMENT 9
Number Assessment

1.

Monday Tuesday Wednesday Thursday Friday

°C °C °C °C °C

110 105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10

2. What was the temperature on:

a. Monday:

b. Tuesday:

c. Wednesday:

d. Thursday:

e. Friday:

2.

Write down each temperature.

a. b. c. d. e.

5 0 -5 -10

3.

What number comes next?

a. 187 500, 177 500, 167 500,

b. 135 250, 125 250, 115 250,

4.

Number	Subtract 10	Subtract 100	Subtract 1 000	Subtract 10 000
164 389	164 289			

5.

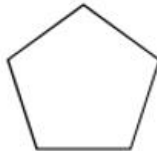
$987\,342 - 199 =$

SM ASSESSMENT 10

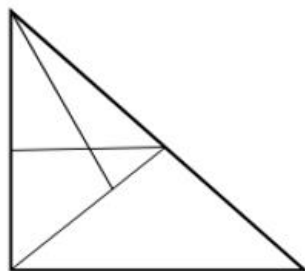
Number Assessment

1. Complete:
79mm = _____ cm

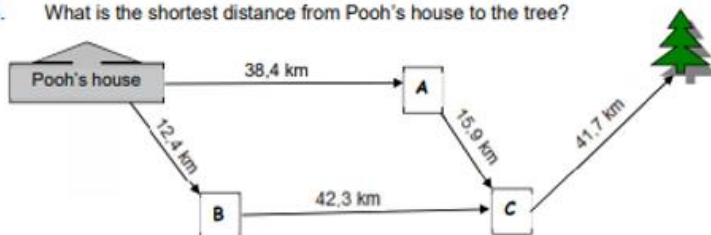
2. Name the 2-D shape illustrated in the diagram below?



3. How many triangles of different sizes are there in the following diagram?



4. What is the shortest distance from Pooh's house to the tree?



5. Zolly packs 5 parcels, each with a mass of 1,2 kg, into a suitcase. The empty suitcase weighs 400 g. What is the total mass of the packed suitcase in kilograms?

SM ASSESSMENT 11

Number Assessment

1. Which number consist of:

$$9t + 4U + 8T + 5H + 6h$$

- A 948,56
- B 584,96
- C 548,69
- D 546,89

2. Round 5 687 off to the nearest 5.

- A 5 685
- B 5 700
- C 5 690
- D 5 600

3. What number is three million more than 345 678 901 is?

- A 645 678 901
- B 375 678 901
- C 348 978 901
- D 348 678 901

4. Which one will match the time on the clock with the time below in words?



- A Nine minutes past ten
- B Ten minutes past nine
- C Quarter to nine
- D Quarter to ten

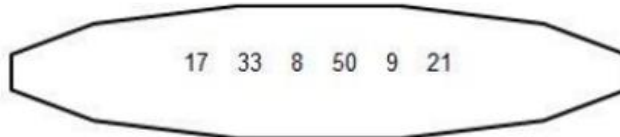
5. Write the number below in digits.

Seventeen million seven hundred and fifty five thousand one hundred and forty two.

SM ASSESSMENT 12

Number Assessment

1.



A prime number: _____

A multiple of 10: _____

2. What is the value of the underlined digit in 82 394 782?

3. Twenty articles cost R120 and are sold for R7,50 each. Calculate the total profit.

4. Find the value of x in the following:

$$x \div 4 = 36 \div 3$$

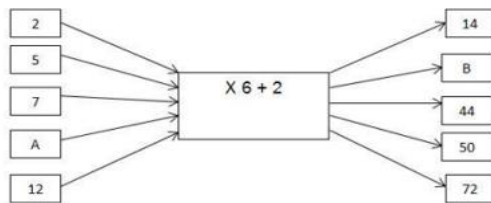
$$x = \underline{\hspace{10cm}}$$

- 5.

$$2\frac{1}{4} + 3\frac{1}{3} + 2\frac{1}{12} =$$

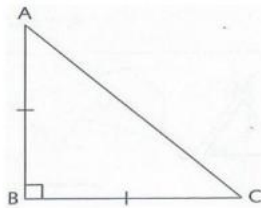
SM ASSESSMENT 13

- Number Assessment
1. Complete the flow diagram.



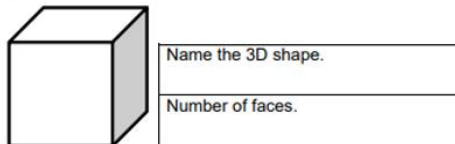
A = _____ B = _____

- 2.



Give the name of the above triangle.

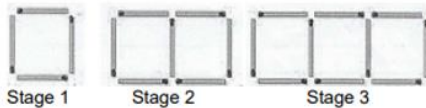
- 3.



4. How many minutes and seconds are left on the watch before 11 o'clock strikes?



5. Study the following geometric pattern below and complete the table below. All the stages form a pattern (sameness).



Number of squares	1	2	3	4	5	30
Number of matches needed	4	7	10	13	16	151

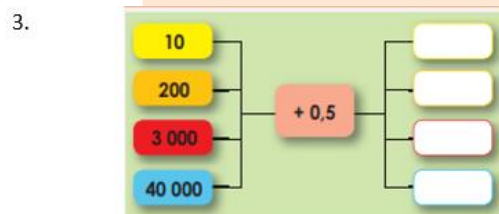
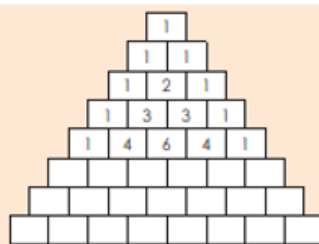
SM ASSESSMENT 14

Number Assessment

1. Complete the table below:

Common Fraction	Decimal Fraction	Percentage
$\frac{1}{2}$	0,5	50%
$\frac{7}{10}$		
$\frac{3}{4}$		

2. Complete the pattern.



4. $3\,989 \times 9 =$

$$\begin{aligned}
 &5\,649 \times 6 \\
 &= (5\,000 \times 6) + (600 \times 6) + (40 \times 6) + (9 \times 6) \\
 &= 30\,000 + 3\,600 + 240 + 54 \\
 &= 30\,000 + 3\,000 + 600 + 200 + 40 + 50 + 4 \\
 &= 30\,000 + 3\,000 + 800 + 90 + 4 \\
 &= 33\,894
 \end{aligned}$$

5. Solve the problems.

a. 378 children attended the sport event. Each spent R35. How much money did they spend altogether?

SM ASSESSMENT 15

Number Assessment

1.

1. This person is looking at a car. Where is the person standing?



a.



b.



c.

2.

Imagine a round cake.

a. If you look at the cake directly from above, what shape will you see?

b. If you look at the cake directly from the side?

3.

How fast can you identify the view. Tick the correct answer.



top front side



top front side



top front side



top front side



top front side



top front side

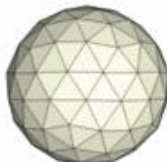
4.

Circle the irregular shapes. Name each shape



5.

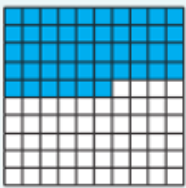
Identify the angles that are smaller, bigger and equal to 90°.

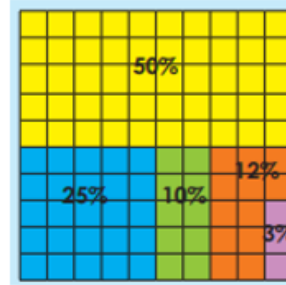


SM Assessment 16

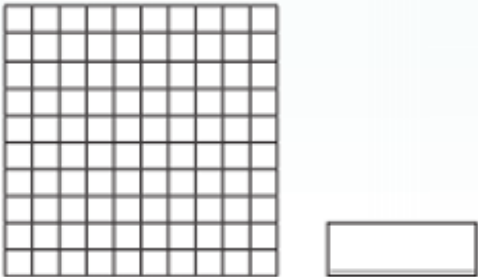
Number Assessment

1. What fraction of the square is blue?
 What percentage of the square is blue?

a.  i.
 ii.




2. Colour in 99 per cent.
 Write your answer as a fraction.



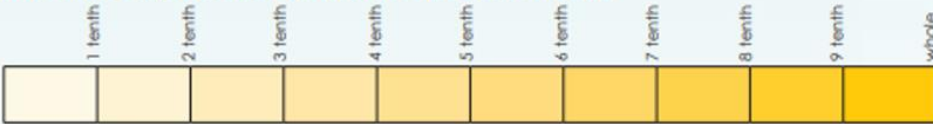
3. 100 % means all of a whole.
 50 % means of a whole.

4. What percentage of the circle is red?

a. b.



5. Look at the diagram and answer the questions below.




a. 1 tenth = % b. 4 tenths = % c. 9 tenths = %

SM Assessment 17

Number Assessment

1.

Complete the following:
 a. Colour in one half of each shape.

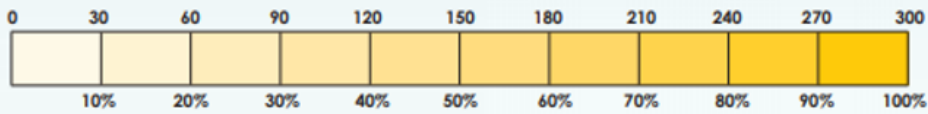


2.

A **quarter** can be written...
 As a fraction:
 As a decimal:
 As a percentage:

3.

c. What is 60 % of 300?



4.

Grouping data

When a large amount of data has to be collected it may help to tally it.

The following tally chart represents the ages of 200 people who went to a school concert.



Age	Tally	Frequency
0-9		9
10-19		
20-29		

5.

Use the tables to answer the questions.

a.

Amount of glass collected				
Week 1	Week 2	Week 3	Week 4	Week 5
5 kg	4 kg	5 kg	6 kg	5 kg

- i. What is the mean score? _____
- ii. What is the median score? _____
- iii. What is the mode? _____

SM Assessment 18

Number Assessment

1. **Look at the number sequence 125, 250, 375, 500.**

a. What is the difference between the numbers. _____


b. Describe the pattern. _____

2. **Give the next three numbers of the sequence. Describe the pattern.**

a.

286	311	336			
-----	-----	-----	--	--	--

3.

input		output
1		8
3		24
5		40
7		56
9		72

i) What would you write in the empty box?

ii) What do we call it?

4. I will measure in ___ and ___.



5. **Draw the following lines with your ruler.**

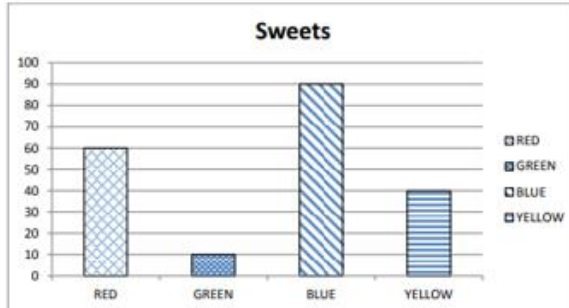
a. 9 cm

b. 6,3 cm

SM Assessment 19

Number Assessment

1. Look carefully at the bar graph and then answer the questions below.

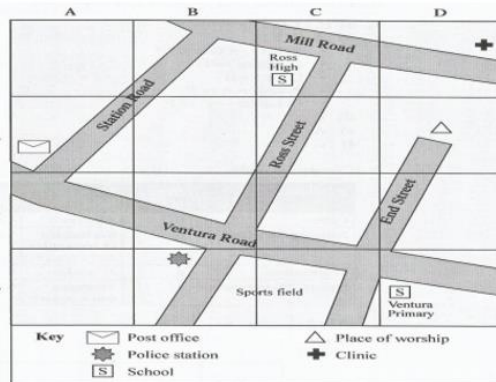


What is the total number of sweets?

2. What percentage of the total does the combined Green and Blue sweets represents?

Construct a common fraction, in its simplest form, for the Green sweets.

3. Look at the map below and answer the questions.



In which block will you find the Post Office?

4. Which place will you find in block D4?

5.

Day	Tallies	Number of learners
Tuesday	+++	5
Wednesday		7
Thursday		4

SM Assessment 20

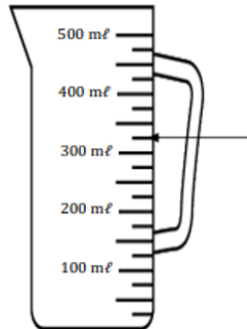
- Number Assessment
1. What is the length of the pencil shown below?



The length of the pencil is ...

- A 56 cm
 - B 5,6 mm
 - C 0,56 m
 - D 5,6 cm
2. Round 347 659 off to the nearest 100 000.
- A 300 000
 - B 348 000
 - C 350 000
 - D 400 000
3. What capacity does the arrow on the jug indicate?

- A 310 mℓ
- B 325 mℓ
- C 320 mℓ
- D 3,1 ℓ



4. Write down the next prime number.
19 , 23 , 29 , _____

5. $4\frac{1}{8} + 3\frac{3}{8}$