NATIONAL EDUCATION COLLABORATION TRUST

education
Department:
Education
PROVINCE OF KWAZULU-NATAL

GRADE 7 MATHEMATICS

TEACHER TOOLKIT

CAPS Planner

TERMS 1 & 2

Jika iMfundo
what I do matters

ENDORSED BY

GRADE 7

Mathematics

Teacher Toolkit:
CAPS Planner

TERMS 1 & 2

Published in 2020 by Jika iMfundo.
Jik'iMfundo is a programme to improve learning outcomes, funded by the National Education Collaboration Trust, the KwaZulu-Natal Department of Education and others.

The Programme to Improve Learning Outcomes (PILO)
The Shed, The Pines, 9 Gordon Hill Road, Parktown, 2193
Tel: + 27 10 880 2431
Email: admin@pilo.co.za

The National Education Collaboration Trust
Ground Floor, Block D, Lakefield Office Park, 272 West Avenue, Centurion, 0163
Tel: +27 12 752 6200
Email: info@nect.org.za
Web: www.nect.org.za

ISBN: 978-1-990904-58-5

Materials development by the PILO team along with representatives from the districts and province.

Publishing management by The Word Horse, www.wordhorse.co.za
Design by COMPRESS.dsl, www.compressdsl.com
Typesetting by The Maas Group, www.themaasgroup.com

CONTENTS

CONTENTS

A. INTRODUCTION

This book is intended to help you cover the curriculum for Grade 7 Mathematics in Terms 1 and 2. There is a companion book for Terms 3 and 4. Teachers should keep these books to use from year to year.

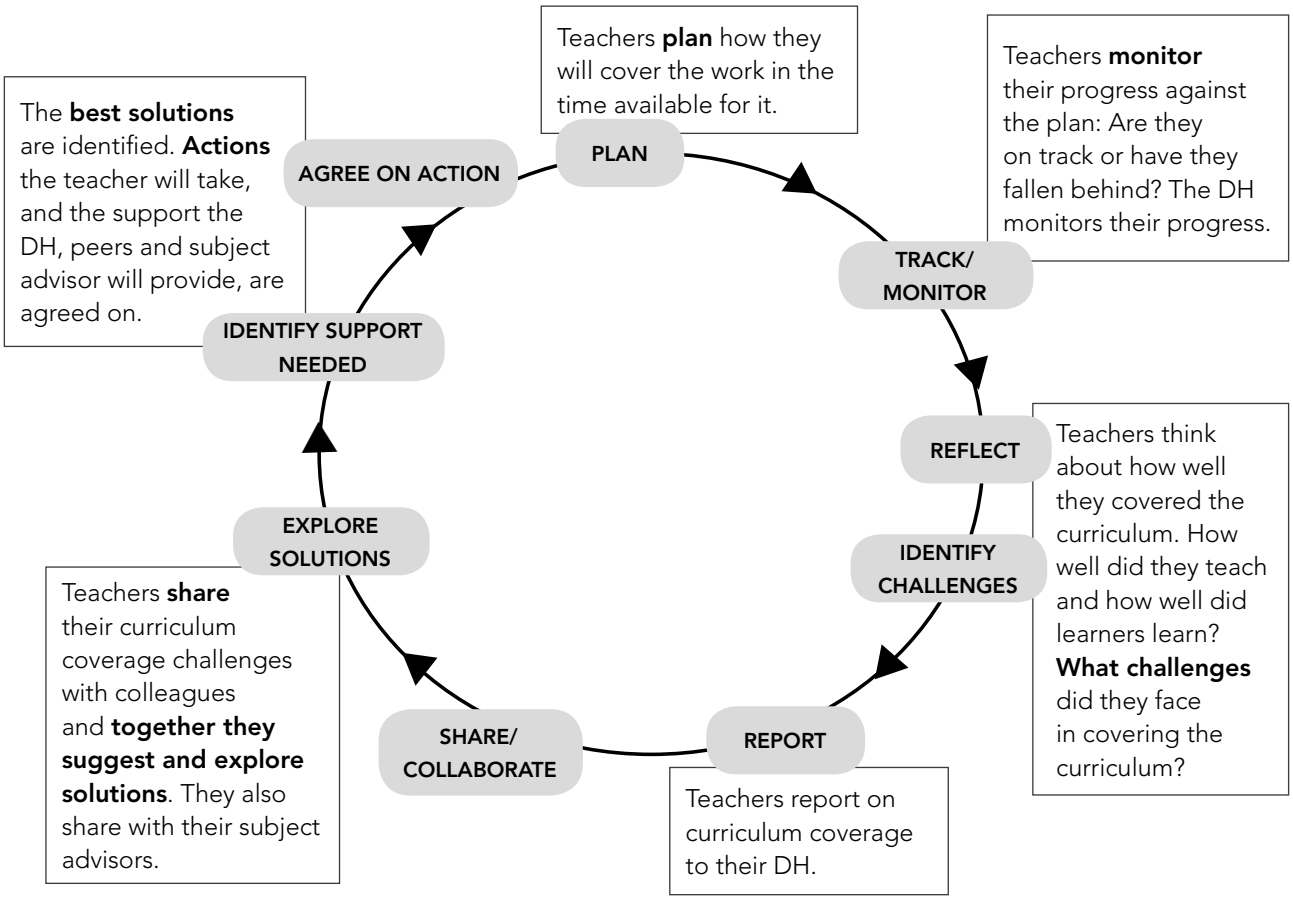
1. The need to improve curriculum coverage

In South Africa, too many learners drop out of school before Grade 12, and too few of those who reach Grade 12 do well in the NSC examinations. There are many reasons for such poor outcomes. One of the most important of these is that the curriculum is not covered each year. In other words, the teachers do not teach everything required by the CAPS in the year, and learners do not sufficiently understand the concepts and develop the skills that are taught. **Improving curriculum coverage is the key thing that teachers can do to improve learning outcomes.**

2. A cycle of activities that support improved curriculum coverage

Covering the curriculum is a complex task in which teachers face many challenges. However, there is a cycle of practices that can support curriculum coverage (see Figure 1). If these practices become routine in the school, curriculum coverage, and thus learners' outcomes, should improve.

Figure 1: The cycle of practices for supporting improved curriculum coverage



B. INFORMATION ABOUT RESOURCES IN THIS BOOK

In this book, you will find resources which will help you plan, track, reflect and report on curriculum coverage for the purpose of working collaboratively with peers and your department head (DH) and subject adviser to solve curriculum coverage problems. The resources are described below.

1. Planners for a daily programme of work

Later in this book there are planners that will help you plan what to teach each day in Term 1 and Term 2 (see Resources 1 and 2 in Section C). These planners provide a daily programme of work. There is a planner for all the books on the approved list of Learning and Teaching Support Materials (LTSMs) for Grade 7 Mathematics.

1.1 How planners link to the CAPS

Planners link the CAPS contents and skills to activities in the learner's book (LB) and teacher's guide (TG) of each set of LTSMs. They also show which DBE workbook pages have related worksheets for extension or remediation. The daily plan of activities ensures that time is allocated to all the work required by the CAPS in the term. Should you miss a lesson for any reason, it is important that you do not skip this lesson, but continue in the next lesson from where you left off.

In the CAPS, four-and-a-half hours have been allocated to Mathematics in the Senior Phase each week. To comply with this, the planners give the content and skills for five lessons of about 55 minutes for each week in the term.

1.2 The structure of the planners

The example of a planner below (Table 1) is Week 8 from *Premier Mathematics* Term 1. It shows you how the planning for a week is arranged. The same layout, abbreviations and symbols are used in the planners for all the LTSMs for each term.

The table heading states the week of the term and the LTSM to which the planning is linked. Look at the notes to see what each column tells you.

Table 1: An example of a planner

PREMIER MATHEMATICS **Week 8** *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	Define: Parallel Lines	2	39	17	24 p. 56
35	Define: Perpendicular lines	3	41	17	24 p. 24
36	**Revision:** Geometry of 2-D shapes	10–11	48		
37	**Formal assessment: Assignment**	Task	38–39	19	
38	Revision	*	45	20	

The columns, from left to right, give the following information:

- The number of the lesson in the term.
- The CAPS content and skills that are dealt with in each lesson, and the page number in the CAPS where the topic or subtopic begins.
- The activity in the learner's book that should be done by the learners during the lesson.
- The page number in the learner's book where the activity and related content can be found.
- The page number in the teacher's guide where support is given for the work to be done.
- The page number in the DBE workbook where there is an activity that can be used for remediation or extension of the CAPS concepts/skill addressed in the lesson.

Abbreviations and symbols used in the planners
• TG = teacher's guide • LB = learner's book
* = select (this indicates that teachers should choose some of the questions given in the activity referred to) # = supplement (this indicates that the activity/exercise referred to is insufficient, and teachers should provide additional examples)

1.3 How to use the planners

Plan for the term

- **Find the correct planner to use** – the one that gives the daily plans for the LTSM that you use mostly in your class. You can of course use the others to help you find additional or alternative activities related to the same skills and concepts.
- **Check the length of the term against the number of weeks in the planner.** The school terms are not the same length each year. However, the planner is the same from year to year. The planner for Mathematics Grade 7 **Term 1** gives a daily plan for a term that is nine-and-a-half weeks in duration. **Term 2** has plans for a term that is ten weeks long. In both terms, the curriculum should be covered in the first approximately 40 days, leaving the remaining time for revision and assessment. If the term in any year is of a different length, or if your school allocates more or less time for examinations than is in the planner, you will have to adjust your planning accordingly. It is very important to do this planning at the beginning of the term so that you neither rush through the work when you in fact have more time for it than allocated in the planner, nor find that you have followed the pace of the planner, but run out of teaching time.

Plan for lessons

- **Compare your timetable with the number of lessons in the week, and the length of each lesson.** In the planners, there are five lessons of approximately 55 minutes per week. If you do not have five periods of this length each week, you will need to adjust the programme for each lesson in the planner to fit the length and number of your lessons.
- **Plan and prepare for each lesson.** The planners give support for the planning of a programme of work. They do not offer help with detailed lesson planning or preparation.

Planning for a lesson involves drawing up a plan of action. A lesson plan should include an introduction, sequenced content and activities for learners to work on individually or in groups, a conclusion, and homework activities to consolidate the learning of the day or to prepare for the next day's lesson where possible. No lesson plan templates are provided here. You should use the one you prefer or that is specified by your school/subject adviser.

When preparing for a Mathematics lesson you should:

- make sure that you understand every aspect of the content knowledge and skills addressed in the lesson;
- consider relevant prior knowledge that the new work builds on, how you will check that learners have this knowledge, and how you will help close any gaps from the past;
- think carefully about how best to help learners understand new work and develop new skills;
- work through each of the learner activities yourself, noting alternative answers where necessary, and making notes on possible learner difficulties in relation to the activities;
- ensure that any resources you need to use in the lesson are available (e.g. flard cards, dot paper, a clock face, counters);
- decide how you will pair/group your learners;
- check in your teacher's guide and learner's book for enrichment/challenge activities for learners who have completed their work and/or need a challenge;
- see where there are remedial and support activities for learners who have barriers to learning; and
- check that the DBE worksheet page in the edition of the workbook you are using does have an appropriate activity related to the work for the lesson (these might have changed slightly since the 2017 edition on which the page references in the planners are based).

These brief points are elaborated on in Resource 3 in Section C.

2. Plans for assessment

Curriculum coverage requires teachers to teach the content given in the CAPS each term/year. It also requires that learners understand the concepts and develop the skills that are taught. Thus, assessment gives vital information about how well the curriculum is being covered. It tells teachers which topics or aspects of topics learners are struggling with, and how many learners are managing well, just coping, or struggling. Teachers need to reflect on possible reasons for and implications of these patterns of achievement, thinking about, for example, what they tell of the efficacy of their teaching methodology and how it could be improved, what feedback they can give learners to encourage and support improvement, and whether they can move on to new work, or need to remediate that which has already been taught.

The CAPS requires that teachers assess their learners' progress by means of both informal and formal assessment, and resources in this book assist teachers with planning for both.

2.1 Informal assessment

Informal assessment is ongoing and part of the teaching process as teachers listen to learners' responses and questions in class, and check their classwork and homework books. No record of the marks for informal assessment needs to be kept, but recording some of these will help you monitor learners' progress.

The CAPS for Mathematics in the Senior Phase does not specify exactly what needs to be done for informal assessment, and consequently the planner does not schedule informal assessment activities. Teachers should use their discretion in this regard. All the LTSMs include activities that are either intended to be used for informal assessment, or which could effectively serve this purpose. You should think about which to use when you do your planning. Occasionally suggestions are made in the planners.

2.2 Formal assessment

Formal assessment is assessment for which marks are recorded. In South African schools, these marks should be entered into SA-SAMS.

The resources in this book help you plan when your learners will complete formal assessment tasks. Knowing this helps you to plan related activities such as when tasks and marking guidelines will be moderated, when marking will be completed and moderated, when marks will be recorded, and when feedback will be given to learners. All these activities are important in ensuring that assessment is at the correct level and that information from it can be used to support improved curriculum coverage.

Formal assessment tasks specified in the CAPS

The CAPS specifies two formal assessment tasks for Term 1 and three for Term 2. In Term 1 these are a test and an assignment; in Term 2 an investigation, a test and an examination.[1]

Formal assessment programmes in the LTSMs and planners

Resource 4 in Section C shows how the formal assessment tasks are integrated into the planners for Terms 1 and 2 respectively. They show when tasks are scheduled in the planner for each of the LTSMs. A note is also made of this date in the planners themselves by writing **Formal assessment** in the CAPS content column. You will see an example of this in Table 1, Lesson 37. The planners also allocate time for you to return marked work and go through it with your learners.

Not all the LTSMs provide an example of all the assessment activities required for the assessment tasks, and some of those provided might not be suitable for your class. Some provide an exemplar test or examination in the learner's book, making it unsuitable for use as a formal assessment task as learners can prepare for it in advance. It is therefore essential that you check the assessment activities carefully before giving them to the learners and, if necessary, adapt them, set your own, use examples from a different set of LTSMs or, in the case of the Term 1 tests and the mid-year examination, use ones provided by the district/province or in Section C of this book. In some cases, there might be a test or examination set by the district or province which you are required to use. The resources in the LTSMs and in this book can then be used for practice.

The dates in the assessment programme provided for your LTSM might not suit your context for some reason. You should be sure to check this, and schedule dates that are more appropriate where necessary.

3. Resources to support content knowledge, pedagogy and assessment practices

Sound content and pedagogical knowledge and teaching and learning resources enable teachers to support learning, and thus have a positive impact on curriculum coverage. For this reason, where appropriate, guidelines for teaching certain topics or skills, explanatory information about the content, suggestions for sound structuring of lessons and exemplar assessment tasks are provided in this series of books. Below is a brief description of resources provided in the Resources section of this book.

1 The DBE makes changes to the assessment requirements from time to time. In such instances, you might need to change the assessment programme shown here to align with the revised requirements.

3.1 Guidelines for preparing a Mathematics lesson

Section 1.3 above drew attention to the need for thorough preparation for a Mathematics lesson to be successful, and gave some brief pointers to effective preparation. Resource 3 in Section C gives more detail about the points made in 1.3, as well as suggestions for how to structure the main activities in a lesson. Following this format in most lessons will ensure that remediation are given attention, together with the learning of new concepts and skills and opportunities for practising and consolidating these.

3.2 An exemplar Term 1 test, memorandum and analysis of cognitive levels

An exemplar test is provided in Resource 5, with a marking memorandum together with an analysis of cognitive levels in Resource 6. Resource 7 shows the weighting of the cognitive levels compared with the weighting specified in the CAPS (p. 157).

3.3 An exemplar Term 2 examination paper, memorandum and analysis of cognitive levels

An exemplar examination paper is provided for Term 2 (Resource 8). Resource 9 is the marking guideline with an analysis of the cognitive levels. Resource 10 shows the weighting of marks in the examination for the cognitive levels compared with the weighting specified in the CAPS.

Assessment resources described in 3.2 and 3.3 above support curriculum coverage by:

- providing assessment tasks that are fully CAPS compliant, and which have been approved by district advisers (this ensures that learners will be assessed at the correct standard);
- providing correct marking guidelines so that learners' work will be marked to the same standard across different markers; and
- supporting teachers' ability to work with the levels of questions required by the CAPS by providing a detailed analysis of the levels of questions asked in the tasks (this strengthens their ability to set assessment tasks that comply with the weighting of cognitive levels themselves in future).

You can photocopy and use the exemplar test and examination paper as they are for formal or informal assessment, or adapt them in ways that make them more useful to you.

3.4 An exemplar formal assessment mark record sheet

Resource 11 provides a template on which to record formal assessment marks for the year to help you see how individual learners are progressing, and which topics might need remedial work. Should you wish, you could also record any informal assessment marks that you have to give a fuller picture.

3.5 A template for tracking, reflecting and reporting for collaborative problem solving

Planning is one activity on the curriculum coverage support cycle (Figure 1), and you have seen how the material in this book supports teachers with planning. The templates provided as Resource 12 in Section C are tools to assist teachers with other aspects of the cycle. There is a template to use in conventional schools, and one for use in multigrade schools. The template for conventional schools is reproduced below, with annotations that show how it is used as a tool for curriculum coverage support. The template for multigrade schools works in the same way.

Teachers should print a copy of the relevant template for each week of the term and use it together with the teaching plan for that week. This teaching plan could be the planner for their LTSM in this book or the ATP or another daily planning resource. They record curriculum coverage information and their reflection on it for all the Mathematics lessons with each class they teach in the week.

Note that dates are not given in the tracking and reflecting template. Teachers should fill two dates into the spaces at the top of the template. Firstly, they should record the week in the planner when the work they are doing is scheduled to be done; secondly, they should record the week when they in fact are starting that work. These dates will help them see how well they are keeping up with the pace set in the planner they are following.

This is the no. of the week in the planner that is being followed.

This is the no. of the week in the term when the work actually starts. If curriculum coverage is behind, this might be a later week than the week in the planner.

Week no. in planner _____

Week no. in term when work planned for week started _____

Refer to the planner for details of the week's work (or the ATP for subjects without planners)

Class (or subject for FP)				
On track by end of week? (Yes/no)				
How many learners are working confidently? (Rough estimate)				
How many learners in this class?				

At the end of the week, the teacher uses evidence from informal and formal assessment, to estimate for each class how many learners out of the total are working confidently at Level 4 or above. They use this information, together with the amount of work planned that they have taught, to state whether or not their curriculum coverage is on track.

DAY	**BRIEF NOTES ON THE DAY'S WORK: Consider such things as:** *What concepts/skills did the learners struggle with or manage well in this lesson? What could be the reasons for this? Did the class complete the work you had planned? Do you need to change your plans for the next lesson? What changes will you make?*
1	
2	
3	
4	
5	

Prompts for daily reflection.

Each day, the teacher reflects on how their lesson went, and how they could improve it using the prompts provided. They also think about whether or not they can proceed as planned in the next lesson. This is a professional judgement they make based on informal and formal assessment. They note the main points here.

Reflection on the week:	
What concepts and skills for the week did learners struggle with? What could you do differently next time to better support or extend learning? What good practice could you share?	**Did you cover the curriculum for the week? If not, what were some of the challenges? What can you do to catch up? What help do you need? How will your progress this week affect your plan for next week?**
DH:	**Date:**

At the end of the week, the teacher reflects on the week's teaching and learning. They think about what learners found difficult, and how they can change their practice so learning improves.

At the end of the week, the teacher considers whether or not the work planned for the week has been taught and learnt, and if not, what can be done to solve curriculum coverage problems and get back on track.

The teacher writes their reflections here for their own professional development, but also to share them with their DH to get support in solving problems.

At the end of the week, the DH reads the teacher's reflections and record of curriculum coverage and signs the template. S/he uses the information shared in a supportive conversation with the teacher. Together they consider any curriculum coverage problems the teacher faces and work towards finding solutions.

1. PLANNERS FOR TERM 1

1.1 *Clever: Keeping Mathematics Simple*

CLEVER: KEEPING MATHEMATICS SIMPLE Week 1 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 39** Inverse operation between multiplication and division	2	10–16	5	
2	Order, compare and represent whole numbers to at least 9-digit numbers	*3	16–17	8	R1 p. ii 1–2 pp. 2–3
3	**Properties of whole numbers** Recognise and use the commutative, associative, distributive properties with whole numbers; Recognise and use 0 in terms of its additive property (identity element for addition); Recognise and use 1 in terms of its multiplicative property (identity element for multiplication)	4 4	18–19 20–21	12 12	1–4 pp. 2–8 5 p.10

CLEVER: KEEPING MATHEMATICS SIMPLE Week 2 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	**Calculations with whole numbers** without use of calculators Addition and subtraction of whole numbers to at least 6-digit numbers	*5	22–23	15	R5a pp. xii–xiii
5	**Calculations with whole numbers** without use of calculators Multiplication of at least whole 4-digit by 2-digit numbers	*5	23–26	15	R5b p. xiv
6	**Calculations with whole numbers** without use of calculators Division of at least whole 4-digit by 2-digit numbers	*5	24–26	15	R5b p. xv
7	Revision: Whole numbers				
8	**Multiples and factors** Multiples of 2-digit and 3-digit whole numbers; Factors of 2-digit and 3-digit whole numbers	6	28–30	18	R6 p. xvi

CLEVER: KEEPING MATHEMATICS SIMPLE Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	Prime factors of numbers to at least 100; List prime factors of numbers to at least 3-digit whole numbers	6	28	19–20	R3 p. viii
10	Find the LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	6	29	19–20	
11	**Solving problems** involving whole numbers, including: Comparing two or more quantities of the same kind (ratio); Comparing two quantities of different kinds (rate); Sharing in a given ratio where the whole is given	7	30–32	24	7 p. 14 8 p. 16
12	Solve problems that involve whole numbers, percentages and decimal fractions in financial contexts such as: Profit, loss and discount; Budgets; Accounts; Loans; Simple interest	8	33–38	21–23	11 p. 22 12 p. 24
13	Revision				

CLEVER: KEEPING MATHEMATICS SIMPLE Week 4 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	**Exponents p. 43** **Mental calculations** Determine squares to at least 12^2 and their **square roots**; Determine cubes to at least 6^3 and their **cube roots**	*3–4 6	43–46 47–48	32–36	15a p. 32 15b p. 34
15	**Comparing and representing numbers in exponential form** Compare and represent whole numbers in exponential form: $ab = a \times a \times a \times$ x... for b number of factors	7	48–49	37	19 p. 42
16	**Calculations using numbers in exponential form p. 44** Recognise and use the appropriate laws of operations with numbers	8	50–52	38–40	18 p. 40
17	**Calculations using numbers in exponential form p. 44** Involving exponents and square and cube roots; Perform calculations involving all four operations using numbers in exponential form, limited to exponents up to 5, and square and cube roots	8	50–52	39	18 p. 41
18	**Solving problems** Solve problems in contexts involving numbers in exponential form	9	52–53	41	

CLEVER: KEEPING MATHEMATICS SIMPLE Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	Revision: Exponents				
20	**Measuring angles** Accurately use a protractor to measure and classify angles	1	55–57	43–47	20 p. 44
21	Accurately use a protractor	2	58	48	20 p. 45
22	Classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 180° (reflex angles)	3	59–63	48	21a pp. 46–47 21b p. 48
23	**Constructions p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor – **Angles**	4	64–65	49–50	25a p. 55

CLEVER: KEEPING MATHEMATICS SIMPLE Week 6 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	**Constructions p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor – **Circles**	5	65–67	51	26 p. 62
25	Accurately construct geometric figures appropriately using compass, ruler and protractor – **Parallel and perpendicular lines**	*6	67–70	51	24 p. 56
26	Accurately construct geometric figures appropriately using compass, ruler and protractor – **Equilateral triangles**	*6	70–72	51	25b p. 60
27	Accurately construct geometric figures appropriately using compass, ruler and protractor – **Patterns**	7	72–75	53	26 p. 62
28	**Geometry of 2-D shapes p. 46** **Classifying 2-D shapes** Describe, sort, name and compare – **Shapes**	1	76–79	53–54	

CLEVER: KEEPING MATHEMATICS SIMPLE Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	**Geometry of 2-D shapes p. 46** **Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on – **Triangles**	2	80–83	55–58	27b p. 56
30	**Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on – **Quadrilaterals**	3	84–85	62	28a p. 68
31	**Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on – **Quadrilaterals**	4	86–87	65	28b p. 70
32	**Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on – **Quadrilaterals**	5	88–89	65	28b p. 71
33	**Formal assessment: Assignment – Space and Shape**	Task	106	79–80	

CLEVER: KEEPING MATHEMATICS SIMPLE Week 8 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	Describe and name parts of a circle	6	90–93	67	26 p. 62
35	Solve simple geometric problems involving unknown sides and angles in triangles and quadrilaterals, using known properties	7	93–95	68	
36	**Similar and congruent 2-D shapes** Recognise and describe similar and congruent figures by comparing – shape	*8	96–99	71	29 p. 72
37	Remediate Assignment	Task	106	252	
38	**Similar and congruent 2-D shapes** Recognise and describe similar and congruent figures by comparing – size	*8	96–99	72	29 p. 73

CLEVER: KEEPING MATHEMATICS SIMPLE Week 9					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	**Geometry of straight lines** Line segment; Rays; Straight line; Parallel lines; Perpendicular lines	1	102–105	75–77	
40	Revision				
41	**Formal assessment: Test** Use one from another LTSM, or use the exemplar in Section C of this planner				
42	Revision				
43	Revision				

CLEVER: KEEPING MATHEMATICS SIMPLE Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Remediate test				
45	Revision: Assignment 2				
46	Revision				
47	Revision				
48	Revision				

1.2 *Mathematics Today*

MATHEMATICS TODAY Week 1 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 40** Order, compare and represent numbers to at least 9-digit numbers	1.5	8–9	2	R1 p. ii R2a p. iv R2b p. vi
2	Recognise and represent prime numbers to at least 100; Rounding off numbers to the nearest 5, 10, 100 or 1 000	1.6 1.7	10 11	2 2	R4 pp. x–xi
3	**Whole numbers p. 40** **Properties of whole numbers** Recognise and use the commutative, associative and distributive properties with whole numbers; Recognise and use 0 and 1 in terms of its additive property (identity element for addition)	1.8*	12–13	3	1–3 pp. 2–7 4 pp. 8–9

MATHEMATICS TODAY Week 2 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	**Calculations with whole numbers p. 41** Revise the following done in Grade 6, without use of calculators: Addition and subtraction of whole numbers to at least 6-digit numbers	1.9* 1.12*	14 16	3	R5a pp. xii–xiii
5	**Calculations with whole numbers** Multiplication of at least whole 4-digit by 2-digit numbers; Division of at least whole 4-digit by 2-digit numbers	1.10* 1.13*	15 17	3	R5b pp. xiv–xv
6	Use a range of techniques to perform and check written and mental calculations of whole numbers including: Estimation; Using a calculator	1.14 1.15	17–18 19	4	
7	Revision	*	29	4	
8	**Multiples and factors p. 42** Multiples of 2-digit and 3-digit whole numbers; Find the LCM of numbers to at least 3-digit whole numbers	1.17 1.18	20–21	4	5 pp. 10–11

MATHEMATICS TODAY Week 3 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	Factors of 2-digit and 3-digit whole numbers; Prime factors of numbers to at least 100; List prime factors of numbers to at least 3-digit whole numbers	1.19	21–22	4	6 pp. 12–13 R3 p. viii
10	Find the HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	1.20	22–23	4	
11	Revision	*	29	4	
12	Solve problems involving whole numbers, including: Comparing two or more quantities of the same kind (ratio); Sharing in a given ratio where the whole is given	1.21* 1.22*	24 25	5	7 pp. 14–15
13	Solve problems involving whole numbers, including: Comparing two quantities of different kinds (rate)	1.23	25–26	6	8 pp. 16–17

MATHEMATICS TODAY Week 4 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	Solve problems that involve whole numbers, percentages and decimal fractions in financial contexts such as: Budgets; Accounts	1.24	26	5	11 pp. 22–23
15	Solve problems that involve whole numbers, percentages and decimal fractions in financial contexts such as: Simple interest	1.25	27	5	12 p. 25
16	Solve problems that involve whole numbers, percentages and decimal fractions in financial contexts such as: Profit, loss and discount	1.26	28	5	10 pp. 20–21
17	Solve problems that involve whole numbers, percentages and decimal fractions in financial contexts such as: Loans	1.27	28	5	12 p. 24
18	Revision: Financial Mathematics	*	29	4	13 pp. 26–27

MATHEMATICS TODAY Week 5 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	**Exponents p. 43** **Mental calculations** Determine squares to at least 12^2 and their **square roots**	2.1* 2.2*	31 32	7	14 a pp. 28–29
20	Determine cubes to at least 6^3 and their **cube roots**	2.3* 2.4*	32 33	7	14b pp. 30–31
21	**Comparing and representing numbers in exponential form** Compare and represent whole numbers in exponential form: $ab = a \times a \times a \times ...$ for b number of factors	2.5*	34	8	16 pp. 36–37
22	Use prime factors to write numbers in exponential form	2.6*	35	8	
23	**Calculations using numbers in exponential form** Use the appropriate laws of operations with numbers involving exponents and square and cube roots	2.7 2.8*	36	8	15a p. 32

MATHEMATICS TODAY Week 6 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	**Solve problems** in contexts involving numbers in exponential form	2.9* 2.15*	37 41	9	18 pp. 40–41
25	Revision	*	42	10	17 pp. 38–39
26	**Formal assessment: Assignment**	Task	43	11	
27	**Measuring angles p. 45** Accurately use a protractor to measure and classify angles	3.1 No.1	45–47	12	
28	Classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 180° (reflex angles)	3.1 No. 2,3	46–48	12	20 pp. 44–45 21a pp. 46–47

MATHEMATICS TODAY Week 7 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	**Constructions** Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Angles, to one degree of accuracy; Circles	3.2* 3.3*	49–50 51–53	12	23 p. 54
30	**Constructions** Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Parallel lines; Perpendicular lines	3.4*	54–56	13	24 p. 56
31	**Revision:** Geometry of straight lines and construction of geometric figures	*	58	13	
32	**Geometry of 2-D shapes p. 46** **Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on – **Triangles**	4.1 4.2*	60–61 62	16	27a p. 64 27b p. 66
33	**Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on – **Quadrilaterals**	4.3	63–65	17	28a p. 68 28b p. 70

MATHEMATICS TODAY Week 8 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	Describe and name parts of a circle	4.4 4.5*	66–67	17	26 p. 62
35	**Similar and congruent 2-D shapes** Recognise and describe similar and congruent figures by comparing: Shape and size	4.6	68–69	19	29 p. 72
36	**Similar and congruent 2-D shapes** Recognise and describe similar and congruent figures by comparing: Shape and size	4.7	70–72	19	29 p. 73
37	Solve simple geometric problems involving unknown sides and angles in triangles and quadrilaterals, using known properties	4.9	73–74	20	
38	Revision: **Geometry of 2-D shapes**	*	75	20	

MATHEMATICS TODAY Week 9 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	**Geometry of straight lines p. 47** **Define:** Point; Line segment; Rays; Straight line	5.1	77–78	22	
40	**Define:** Parallel lines and perpendicular lines	5.2	79–80	22	24 p. 56
41	Revision: **Geometry of straight lines**	*	81	23	
42	**Formal assessment: Test**	Test		24–25	
43	Revision				

MATHEMATICS TODAY Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Revision				
45	Remediate test				
46	Revision				
47	Revision				
48	Revision				

1.3 *Oxford Headstart Mathematics*

OXFORD HEADSTART MATHEMATICS Week 1 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 40** Represent and compare numbers to at least 9-digit numbers	2 4	8 10	31 32	R1 p. ii
2	**Whole numbers p. 40** Order, compare and represent numbers to at least 9-digit numbers; Rounding off numbers to the nearest 5, 10, 100 or 1 000	5 6	11 12	33 34	R2a p. iv R4 p. x
3	**Properties of whole numbers** Recognise and use the commutative, associative and distributive properties with whole numbers; Recognise and use 0 and 1 in terms of its additive property (identity element for addition)	1	13–14	35–36	*1–4 pp. 2–8

OXFORD HEADSTART MATHEMATICS Week 2 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	**Calculations with whole numbers** Addition of numbers to at least 6-digit numbers; Subtraction of numbers to at least 6-digit numbers	2* 3* 5* 6* 7*	16–19 20 21	37–38 40–41	R5a p. xii R5a p. xiii
5	Perform calculations using all four operations on whole numbers	8	21–22	42	
6	**Calculations with whole numbers** Multiplication of at least whole 4-digit by 2-digit numbers	9* 10* 13*	22 23 26	42–45	R5b p. xiv
7	**Calculations with whole numbers** Division of at least whole 4-digit by 2-digit numbers	11* 12*	24 25	43	R5b p. xiv
8	**Multiples and factors** Multiples of 2-digit and 3-digit whole numbers	1	28–29	46	5 p. 10

OXFORD HEADSTART MATHEMATICS Week 3 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	**Multiples and factors** Factors of 2-digit and 3-digit whole numbers	1*	27–28	46	6 p. 12
10	LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	1* 2*	28–29	46–47	6 p. 13
11	Prime factors of numbers to at least 100; List prime factors of numbers to at least 3-digit whole numbers	3 4	31–32	48–49	R3 p. viii
12	**Solve problems involving:** Comparing two or more quantities of the same kind (ratio); Comparing two quantities of different kinds (rate)	1* 2* 3*	33–34 35–36 36–37	50–53	7 p. 14 8 p. 16
13	**Solve problems** that involve whole numbers, percentages and decimal fractions in financial contexts	5* 6* 7*	38 39 40	54–57	

OXFORD HEADSTART MATHEMATICS Week 4 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	**Revision:** Whole numbers	*	47	60	
15	**Exponents** **Mental calculations p. 43** Determine squares to at least 12^2 and their **square roots**; Determine cubes to at least 6^3 and their **cube roots**	1* 3* 4* 5*	50–51 53 54 55	62–63 64 65 65	15a p. 32 15b p. 34
16	Calculations using numbers in exponential form	2 * 6*	52 55	63 66	17 p. 38
17	Calculations using numbers in exponential form	8	57	67	18 p. 40
18	Compare and represent whole numbers in exponential form: $ab = a \times a \times a \times a \times \ldots$ for b number of factors	3*	61	64	19 p. 42

OXFORD HEADSTART MATHEMATICS Week 5 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	Calculations with exponents	1 2	62 63	68–69	18 p. 41
20	Problem solving with exponents	3*	64	70	
21	**Revision:** Exponents		65	71	
22	**Formal assessment: Assignment**	Task	65	75	
23	**Geometry of straight lines p. 47** Points, Lines and Rays	1	68–70	76–78	

OXFORD HEADSTART MATHEMATICS Week 6 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	**Geometry of straight lines** Parallel lines	2	71–73	79	24 p. 56
25	**Geometry of straight lines** Perpendicular lines	3	74	79	24 p. 57
26	**Geometry of straight lines** Angles	4	75–77	80	
27	**Measuring angles** Accurately use a protractor to measure and classify angles	5*	78–81	81	20 p. 44
28	**Measuring angles** Classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 180 (reflex angles)	6* 7*	82 85	81 82	20 p. 45 21a pp. 46–47

OXFORD HEADSTART MATHEMATICS Week 7 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	**Construction of geometric figures p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Angles, to one degree of accuracy	1*	86–88	84	23 p. 54 25 p. 58
30	Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Perpendicular lines	2	89–90	84	24 p. 56
31	**Construction of geometric figures p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Parallel lines	3	91	84	24 p. 56
32	**Construction of geometric figures p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Circles	2 3	93	84	26 p. 62
33	**Revision:** Construction of geometric figures		95	85	

OXFORD HEADSTART MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	**Geometry of 2-D shapes p. 46** Define Triangles; Describe, sort, name and compare triangles according to their sides and angels	1	97–99	90	22a p. 50
35	Calculate the sizes of angles	2 3	100–101	90	22b p. 52
36	Construct triangles	4	102–103	91	25a p. 56
37	Describe, name and compare quadrilaterals in terms of: Length of sides; Parallel and perpendicular sides and size of angles (right angles or not)	1	105	92	28a p. 68
38	Sort and investigate quadrilaterals in terms of: Parallel and perpendicular sides; Size of angles (right angles or not)	2 3	106–109	93	28b p. 70

OXFORD HEADSTART MATHEMATICS Week 9					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	Sort and investigate quadrilaterals in terms of: Length of sides	1 2	114 115	97 98	29 p. 72
40	**Similar and congruent 2-D shapes p. 47** Recognise and describe similar and congruent figures by comparing: Shape and size	1	112	96	
41	**Revision:** Describe and name parts of a circle				
42	**Formal assessment: Test**	Test		101	
43	Revision				

OXFORD HEADSTART MATHEMATICS Week 10						
Day	**MM TG**	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44		Revision				
45		Revision				
46		Revision				
47		Remediate test	Test		103	
48		Revision				

1.4 *Oxford Successful Mathematics*

OXFORD SUCCESSFUL MATHEMATICS Week 1 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 40** Represent and compare numbers to at least 9-digit numbers; Order, compare and represent numbers to at least 9-digit numbers; Rounding off numbers to the nearest 5, 10, 100 or 1 000	*2	14–16	29–31	R1 p. ii R2a p. iv R4 p. x
2	**Properties of whole numbers** Recognise and use the commutative, associative and distributive properties with whole numbers; Recognise and use 0 and 1 in terms of its additive property (identity element for addition)	*1	17–19	32	*1–4 pp. 2–8
3	**Calculations with whole numbers** Addition of numbers to at least 6-digit numbers; Subtraction of numbers to at least 6-digit numbers	*1	20–23	34	R1 p. ii R5a p. xiii 5 p. 10

OXFORD SUCCESSFUL MATHEMATICS Week 2 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	**Calculations with whole numbers** Multiplication of at least whole 4-digit by 2-digit numbers; Division of at least whole 4-digit by 2-digit numbers; Perform calculations using all four operations on whole numbers	*2 *3	23–24 25–26	37 38	R5b p. xiv R5b p. xiv
5	**Multiples and factors** Factors of 2-digit and 3-digit whole numbers; LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	*1	27–29	39 40	6 pp. 12–13
6	Prime factors of numbers to at least 100; List prime factors of numbers to at least 3-digit whole numbers	*1	27–29	41	R3 p. viii
7	**Solve problems involving:** Comparing two or more quantities of the same kind (ratio); Comparing two quantities of different kinds (rate)	*2 *3	30–33	41	7 p. 14 8 p. 16
8	**Solve problems** that involve whole numbers, percentages and decimal fractions in financial contexts	*1	34–35	42	

OXFORD SUCCESSFUL MATHEMATICS Week 3 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	**Solving problems p. 42** Solve problems that involve whole numbers, in financial contexts such as: Profit, loss and discount	*2	36–39	44	10 p. 20
10	Solve problems that involve decimal fractions in financial contexts such as: Budgets; Accounts; Loans	*3 *4	40–41 42–43	47	11 p. 22 12 p. 24
11	**Revision:** Whole numbers	*	45		
12	**Exponents** **Mental calculations p. 43** Determine squares to at least 12^2 and their **square roots**; Determine cubes to at least 6^3 and their **cube roots**	1 2	46–48 48–49	50–51	15a p. 32 15b p. 34
13	Compare and represent whole numbers in exponential form	1	50	53	17 p. 38

OXFORD SUCCESSFUL MATHEMATICS Week 4 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	Calculations using numbers in exponential form	1 2	51 52	55	18 p. 40
15	Calculations using numbers in exponential form exponential form: $ab = a \times a \times a$ x... for b number of factors	1	53	55	19 p. 42
16	Calculations with exponents	*1	55–56	56	18 p. 41
17	Problem solving with exponents	*1	57–59	57–58	
18	**Revision:** Exponents	*	61	60	

OXFORD SUCCESSFUL MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	**Geometry of straight lines** Angles	1	63	62	
20	**Measuring angles** Accurately use a protractor to measure and classify angles	1	63–65	63	20 p. 44
21	Classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 108° (reflex angles)	1 3	64–65 67	63	20 p. 45 21a pp. 46–47
22	**Construction of geometric figures p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Angles, to one degree of accuracy	2	66	64	21b p. 48
23	Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Straight lines	1	69	64	

OXFORD SUCCESSFUL MATHEMATICS Week 6 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	**Formal assessment: Assignment – Option 2**		377	246	
25	**Geometry of straight lines p. 47** Parallel lines	1	75–77	66	24 p. 56
26	**Geometry of straight lines** Perpendicular lines	2	78–80	66	24 p. 56
27	Revision	*	82	67	
28	**Define:** Rays; Straight lines; Parallel lines; Perpendicular lines	1	84–86	70	

OXFORD SUCCESSFUL MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	**Construction of geometric figures p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Triangles	2	71	71	24 p. 56
30	**Construction of geometric figures p. 45** Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Quadrilaterals	2	72	75	26 p. 62
31	**Revision:** Construction of geometric figures				
32	**Geometry of 2-D shapes p. 46** Describe, sort, name and compare triangles according to their sides and angles, focusing on: Equilateral triangles; Isosceles triangles; Right-angled triangles	1	87–91	74	27a p. 64 27b p. 66
33	Describe, sort, name and compare triangles according to their sides and angles	2	92–96	74	22a p. 50

OXFORD SUCCESSFUL MATHEMATICS Week 8 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	Revision				
35	Sort and investigate quadrilaterals in terms of: Length of sides; Parallel and perpendicular sides; Size of angles (right-angles or not)	*1	97–104	75–76	28a p. 68 28b p. 70
36	**Revision:** Describe and name parts of a circle	2	105	78	
37	**Similar and congruent 2-D shapes p. 47** Recognise and describe similar and congruent figures by comparing: Shape and size	1 2	107–109 110–113	79	29 p. 72
38	**Formal assessment: Test**	Test		247–248 Memo 249	

OXFORD SUCCESSFUL MATHEMATICS Week 9					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	Revision				
40	Revision				
41	Remediate test	Test		247–249	
42	Revision				
43	Revision				

OXFORD SUCCESSFUL MATHEMATICS Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Revision				
45	Revision				
46	Revision				
47	Revision				
48	Revision				

1.5 *Platinum Mathematics*

PLATINUM MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 40** Ordering and comparing and round off numbers; Order of operations	1.1	4–6	3–4	R1 p. ii R2 p. iv
2	**Properties of whole numbers** Recognise and use the commutative, associative and distributive properties with whole numbers	1.2	7–8	5	1–4 pp. 2–9
3	**Calculations with whole numbers** without use of calculators **p. 41** Addition and subtraction of whole numbers to at least 6-digit numbers	1.3	9–10	6	R5a pp. xii–xiii

PLATINUM MATHEMATICS Week 2 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	**Calculations with whole numbers** without use of calculators: Multiplication of at least whole 4-digit by 2-digit numbers; Division of at least whole 4-digit by 2-digit numbers	1.3*	10–11	7	R5b p. xiv R5b p. xv
5	**Multiples and factors p. 42** Multiples of 2-digit and 3-digit whole numbers; Factors of 2-digit and 3-digit whole numbers; Prime factors of numbers to at least 100; Find the LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	1.4	12–13	7–8	5 p. 10 6 p. 12 R3 p. viii
6	**Solve problems** involving whole numbers, including: Comparing two or more quantities of the same kind (ratio); Comparing two quantities of different kinds (rate); Sharing in a given ratio where the whole is given; Whole numbers, percentages and decimal fractions in financial contexts such as profit and loss	1.5	14–15	9	7 p. 14 8 p. 16
7	**Solve problems** involving whole numbers, including: Comparing two or more quantities of the same kind (ratio); Comparing two quantities of different kinds (rate); Sharing in a given ratio where the whole is given; Whole numbers, percentages and decimal fractions in financial contexts such as profit and loss	1.6	16	9	7 p. 14 8 p. 14 10 p. 20
8	**Revision:** Whole numbers	1, 3, 6	17	10	

PLATINUM MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	**Exponents** **Comparing numbers in exponential form p. 43** Compare and represent whole numbers in exponential form: $ab = a \times a \times a \times a \times ...$ for b number of factors.	2.1	18–19	11	16 p. 36
10	Compare and represent whole numbers in exponential form:	2.1	20	11	16 p. 37
11	Use the appropriate laws of operations with numbers involving exponents and square and cube roots	2.2	21–22	12	17 p. 38
12	**Calculations** involving all four operations using numbers in exponential form, limited to exponents up to 5, and square and cube roots	2.3	23–24	14	18 p. 40
13	**Calculations** involving all four operations using numbers in exponential form, limited to exponents up to 5, and square and cube roots	2.3	23–24	14	18 p. 41

PLATINUM MATHEMATICS Week 4 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	**Solve problems** in contexts involving numbers in exponential form	2.4	26	15	19 p. 42
15	**Revision:** Exponents	*	27	16	
16	**Geometry of straight lines** **Define:** Line segment; Straight line; Parallel lines; Perpendicular lines	3.1	30–31	18	21a p. 46
17	**Geometry of Straight lines** **Define:** Line segment; Straight line; Parallel lines; Perpendicular lines	3.1	32	18	24 p. 56
18	**Revision:** Geometry of straight lines			18–19	

PLATINUM MATHEMATICS Week 5 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	**Formal assessment: Assignment**	Task	28–29	17	
20	**Construction of geometric figures** Understanding angles	4.1	34–35	20	20 p. 44
21	**Measuring angles** Classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 108° (reflex angles)	*4.2	36–37	21	21a pp. 46–47 21b p. 48
22	Classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 108° (reflex angles)	*4.2	36–37	21	21b p. 49 22a p. 50
23	**Measuring angles** Accurately use a protractor to measure angles	4.3	38–40	21	

PLATINUM MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	Remediate assignment	Task	28–29	17	
25	**Constructions** Accurately construct geometric figures appropriately using ruler and protractor, including: Angles, to one degree of accuracy	4.4	41–42	22	20 p. 44
26	**Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on: Equilateral triangles; Isosceles triangles; Right-angled triangles	4.5	43	23	27a p. 64
27	Describe, sort, name and compare triangles according to their sides and angles, focusing on: Equilateral triangles; Isosceles triangles; Right-angled triangles	4.5	44	23	27b p. 66
28	**Classifying 2-D shapes** Describe, sort, name and compare quadrilaterals in terms of: Length of sides; Parallel and perpendicular sides; Size of angles (right-angles or not)	4.6	45–46	23	28a p. 68 28b p. 70

PLATINUM MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	Describe and name parts of a circle		47	24	26 p. 62
30	**Constructions** Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Circles	4.7	48	24	26 p. 63
31	Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Circles patterns	4.8	49–50	24	
32	Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Parallel lines	4.9	51–52	25	24 p. 56
33	Accurately construct geometric figures appropriately using compass, ruler and protractor, including: Perpendicular lines	4.9	53–54	25	24 p. 56

PLATINUM MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	**Revision:** Constructions		55	25	
35	**Solving problems** **Triangles** Solve simple geometric problems involving unknown sides and angles in triangles using known properties	5.1	56–58	28	
36	**Solving problems** **Quadrilaterals** Solve simple geometric problems involving unknown sides and angles in quadrilaterals, using known properties	5.2	59–61	29	28b p. 70
37	**Similar and congruent 2-D shapes** Recognise and describe similar and congruent figures by comparing: Shape; Size	5.6	63–64	31	29 p. 72
38	**Similar and congruent 2-D shapes** Recognise and describe similar and congruent figures by comparing: Shape; Size	5.7	65	31	29 p. 72

PLATINUM MATHEMATICS Week 9					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	Recognise and describe similar and congruent figures by comparing: Shape; Size	5.8	66–67	31	
40	Describe and name parts of a circle	5.9	68–69	32	
41	**Revision:** Similar and congruent 2-D shapes		70–71	32	
42	**Formal assessment: Test** Use one from another LTSM, or use the exemplar in Section C of this planner				
43	Revision				

PLATINUM MATHEMATICS Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Revision				
45	Revision				
46	Revision				
47	Revision				
48	Remediate test	Test	72–73	33	

1.6 *Premier Mathematics*

PREMIER MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 40** Ordering and comparing numbers; Order of operations	2	2–3	2	R1 p. ii 1–2 pp. 2–3
2	Recognise and use the commutative, associative and distributive properties (+ and x); Recognise and use 0 and 1 in terms of its additive and multiplicative property	3	4–5	2–3	2–3 pp. 4–5 4 pp. 8–9
3	**Calculations p. 41** Addition and subtraction of whole numbers to at least 6-digit numbers	4	5	3–4	R5a pp. xii–xiii

PREMIER MATHEMATICS Week 2 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	Multiplication and division of at least whole 4-digit by 2-digit numbers	5	6–8	4	R5b p. xiv
5	**Calculation techniques p. 41** Use a range of techniques to perform and check written and mental calculations of whole numbers including: **Estimation; Rounding off; Compensating**	6	9–10	5	R4 p. x
6	**Multiples and factors p. 42** Multiples of 2-digit and 3-digit whole numbers; Factors of 2-digit and 3-digit whole numbers; Find the LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	7	11 12 13	6	5 pp. 10–11 6 pp. 12–13
7	List prime factors to at least 3-digit whole numbers; Prime factors of numbers to at least 100	8	14	6	R3 p. viii
8	**Solving problems p. 42** Solving problems involving whole numbers, including: Comparing two or more quantities of the same kind **(ratio)**	*9	15–16	7	7 p. 14

PREMIER MATHEMATICS Week 3 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	Comparing two quantities of different kinds (**rate**)	*9	15–16	7	8 pp. 16–17
10	**Solving problems p. 42** Solve problems that involve whole numbers, in financial contexts such as: Profit, loss and discount	10	17–18	8	10 pp. 20–21
11	Solve problems that involve decimal fractions in financial contexts such as: Budgets; Accounts; Loans	11	19–21	9	11 pp. 22–23 12 pp. 24–25
12	**Revision:** Whole numbers: Multiples and factors and problem solving	1, 2, 3, 5	45–46		
13	**Exponents p. 43** Determine squares to at least 12^2 and their **square roots**	1	22	10	14a pp. 28–29

PREMIER MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	Determine cubes to at least 6^3 and their **cube roots**	1	23	10	14b pp. 30–31
15	**Calculating using numbers in exponential form** Perform calculations involving all four operations using numbers in exponents up to 5, and square and cube roots	2	24	11	16 pp. 36–37 17 pp. 38–39
16	**Solving problems** Solve problems in contexts involving numbers in exponential form	3	25	11	15 b p. 35
17	**Revision:** Exponents	6, 7, 8	46–47		15a–b pp. 33–35
18	**Measuring angles p. 45** Accurately use a **protractor** to measure and classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 108° (reflex angles)	1	25–27	12	20 pp. 44–45 21a pp. 46–47

PREMIER MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	**Constructions** Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Angles, to one degree of accuracy	2	28	12	23 pp. 54–55
20	Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Circles	3	29–30	13	26 pp. 62–63
21	Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Parallel lines	4	30	16	24 pp. 56–57
22	Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Perpendicular lines	4	31	17	24 pp. 56–57
23	**Revision:** Geometry of straight lines terminology	5	31	14	

PREMIER MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	**Revision:** Geometry of straight lines and construction of geometric figures	9	47–48		25b pp. 60–61
25	**Classifying 2-D shapes p. 46** Describe, sort, name and compare **triangles** according to their sides and angles, focusing on: Equilateral triangles	1 No. 1a–e	31–32	14	27a p. 64
26	Describe, sort, name and compare **triangles** according to their sides and angles, focusing on: Isosceles triangles	1 No. 2–3	32	14	27a p. 65
27	Describe, sort, name and compare **triangles** according to their sides and angles, focusing on: Right angled triangles	1 No. 4	32	14	27b p. 67
28	Describe, sort, name and compare **quadrilaterals** in terms of: Length of sides; Parallel and perpendicular sides; Size of angles (right-angles or not)	2	33	15	28a pp. 68–69 28b pp. 70–71

PREMIER MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	Describe and name parts of a **circle**	3	34	15	
30	**Similar and congruent 2-D shapes p. 47** Recognise and describe similar and congruent figures by comparing: Shape; Size	4 No. 1–2	35–36	15	29 p. 71
31	Recognise and describe similar and congruent figures by comparing: Shape; Size	4 No. 3–4	35–36	15	29 p. 72
32	**Solving problems** Solve simple geometric problems involving unknown sides and angles in triangles and quadrilaterals, using known properties	5	37	16	
33	**Geometry of straight lines p. 47** Types of lines	1	38	16	

PREMIER MATHEMATICS Week 8 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	Define: Parallel Lines	2	39	17	24 p. 56
35	Define: Perpendicular lines	3	41	17	24 p. 24
36	**Revision:** Geometry of 2-D shapes	10–11	48		
37	**Formal assessment: Assignment**	Task	38–39	19	
38	Revision	*	45	20	

PREMIER MATHEMATICS Week 9 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	**Revision:** Geometry of 2-D shapes	*8–9	47		28b pp. 70–71
40	Revision	*	45	20	
41	**Formal assessment: Test**	Test		22–26 Memo 27–29	
42	**Revision**	*		20	
43	Revision	*	44	20	

PREMIER MATHEMATICS Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Revision				
45	**Remediate test**			27	
46	Revision				
47	Revision				
48	Revision				

1.7 *Sasol Inzalo Mathematics*

SASOL INZALO MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Working with whole numbers pp. 39–42** Ordering and comparing whole numbers: How far can you count, and how far is far?	1–7	13–14	16–17	1 pp. 2–3
2	Ordering and comparing whole numbers: Rounding to 5s, 10s, 100s and 1 000s	1–4	14–16	18	2 pp. 4–5
3	Factors, prime numbers and common multiples: Prime numbers	1–4, 9	17–19	20–22	3 pp. 6–7

SASOL INZALO MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	Factors, prime numbers and common multiples: Highest common factors and lowest common mul-tiples	1–6	19–20	22–23	4 pp. 8–10
5	Properties of operations: Order of operations and the associative property	1–6	20–21	23–24	5 pp. 11–12
6	Properties of operations: The commutative property of addition and subtraction More conventions and the distributive property	1 –3 1–2	21–22 22	24–27	6 pp. 12–13
7	Properties of operations: More conventions and the distributive property	3–5	23	25–27	7 pp. 14–15
8	Basic operations: A method of addition	1–5	24–26	27–29	8 pp. 16–17

SASOL INZALO MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	Basic operations: Methods of subtraction	1–8	26–27	29–30	9 pp. 18–19
10	Basic operations: A method of multiplication (calculators can be used for checking)	1–6	28–29	31–32	10 pp. 20–21
11	Basic operations: A process called long division (calculators can be used for checking)	1–7	29–30	32–35	11 pp. 22–23
12	Basic operations: A process called long division (no calculators to be used)	8–13	30–32	32–35	12 pp. 24–25
13	Problem solving: Ratio and rate	1–3, 5, 8–9	32–34	35–37	13 pp. 26–27

SASOL INZALO MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	Problem solving: Financial Maths	1–6	34–35	37–38	
15	**Exponents pp. 43–44** Quick squares and cubes: Again, and again	1–5	36	39–42	14a pp. 28–29
16	Quick squares and cubes: Again, and again	6–10	38	39–42	14b pp. 30–31
17	Exponential notation: Repeated multiplication with the same number	1, 2, 5, 6, 8, 10	38–39	42–44	15a pp. 32–33
18	Exponential notation: Powers of different numbers	1–7	40–41	44–45	15b pp. 34–35

SASOL INZALO MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	Squares and cubes: Calculating squares and cubes	1–5	42	45–46	16 pp. 36–37
20	The square root and the cube root: Determining which number was squared; Determining which number was cubed	1–7 1–7	43 43–44	47 47–48	17 pp. 38–39
21	The square root and the cube root: Calculating square roots and cube roots	3–5	45	48–49	18 pp. 40–41
22	Comparing numbers in exponential form: Bigger or smaller or equal?	1–5	46	50	19 pp. 42–43
23	Comparing numbers in exponential form: Arranging numbers in ascending and descending order	1–2	47	51	15b pp. 34–35

SASOL INZALO MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	Calculations: Calculation with exponents; Calculations involving square roots and cube roots	1 1–3	48 49	53–54	
25	**Formal assessment: Assignment** (no calculators allowed; show all working out)	1–5	50	54	
26	**Geometry of straight lines p. 47** Line segments, lines and rays	1–9	51–53	55–58	
27	Parallel and perpendicular lines: Parallel lines	1–12	54–55	59–60	
28	Parallel and perpendicular lines: Perpendicular lines	1–6	56	61	

SASOL INZALO MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	**Construction of geometric figures p. 45** Angle revision	1–7	57–59	63–66	20 pp. 44–45
30	Return the assignment to the learners Discuss the answers and let the learners do corrections				21a pp. 46–47
31	The degree: A unit for measuring angles: Some familiar angles in degrees	1–3	59–60	66–67	21b pp. 48–49
32	The degree: A unit for measuring angles: Comparing angles using A4 paper	1–5	60	67	22a pp. 50–51
33	Using the protractor: How to use a protractor to measure an angle; Practice measuring with a protractor	1–3	61–64	68–71	22b pp. 52–53

SASOL INZALO MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	Using a protractor to construct angles: Constructing angles to a given line	1–5	65–66	72–73	20 pp. 44–45
35	Parallel and perpendicular lines	1–2	66–68	73–75	21a pp. 46–47
36	Using the compass: Constructing circles with a compass; Circles on circles	1–2 1–6	69–71	76–78	21b pp. 48–49
37	Parallel and perpendicular lines with circles	1–5	76–77	83–84	22a pp. 50–51
38	**Geometry of 2-D shapes pp. 46–47** Triangles, quadrilaterals, circles and others: Decide which is which and draw some figures	1–3	78–80	85–88	22b pp. 52–53

SASOL INZALO MATHEMATICS Week 9					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	Different types of triangles: Equilateral, isosceles, scalene and right-angled triangles	1–3	80–82	88–90	27a pp. 64–65
40	Different types of triangles: Comparing and describing triangles; Finding unknown sides in triangles	1–2 1–2	82–83 83	90–91	27b pp. 66–67
41	Different types of quadrilaterals: Investigating quadrilaterals	1–7	84	92–94	28a pp. 68–69
42	Different types of quadrilaterals: Comparing and describing quadrilaterals; Finding unknown sides in quadrilaterals	1–3 1–4	87 87–88	95–96	28b pp. 70–71
43	Circles	1–21	88–89	96–97	29 pp. 72–73

SASOL INZALO MATHEMATICS Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Similar and congruent shapes	1–5	90	98–101	
45	Revision				
46	**Formal assessment: Test** Use one from another LTSM, or use the exemplar in Section C of this planner				
47	Revision				
48	Revision				

1.8 *Solutions for All Mathematics*

SOLUTIONS FOR ALL MATHEMATICS Week 1 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 40** Ordering and comparing numbers; Order of operations	1.1 Act. 1.1	1–3	2–3	R2a p. ii
2	Recognise and use the commutative, associative, distributive properties (+ and x)	1.2 Act. 1.2 Act. 1.3	4–5	4	*1–4 pp. 2–8
3	Recognise and use 0 and 1 in terms of its additive and multiplicative property	1.4 Act. 1.5	6–7	5–6	5 p. 10

SOLUTIONS FOR ALL MATHEMATICS Week 2 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	Calculations: Addition and subtraction of whole numbers to at least 6-digit numbers	1.5 Act. 1.5	7–8	6–7	R5a p. xiii
5	Multiplication of at least whole 4-digit by 2-digit numbers	1.6 Act. 1.6	8–9	7	R5b p. xiv
6	Division of at least whole 4-digit by 2-digit numbers	1.6 Act. 1.6	8–9	7	R5b p. xv
7	**Calculations with whole numbers p. 41** Perform calculations using all four operations on whole numbers, estimating and using calculators where appropriate	1.11 *Act. 1.11	16	8–9	
8	**Calculation techniques p. 42** Use a range of techniques to perform and check written and mental calculations of whole numbers including: Estimation; Division	*1.7 No. 1	10	8	

SOLUTIONS FOR ALL MATHEMATICS Week 3 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	**Calculation techniques** Use a range of techniques to perform and check written and mental calculations of whole numbers including: Long division	*1.7 No. 2	10	7	
10	**Calculation techniques** Use a range of techniques to perform and check written and mental calculations of whole numbers including: Rounding off and compensating	Act. 1.8	11	8	
11	**Calculation techniques** Use a range of techniques to perform and check written and mental calculations of whole numbers	1.8	14	9	
12	**Revision:** Calculation techniques; Whole numbers	*Check what you know*	18	10	
13	**Multiples and factors** Multiples of 2-digit and 3-digit whole numbers; Factors of 2-digit and 3-digit whole numbers; Prime factors of numbers to at least 100	2.1 Act. 2.1	20–22	12–14	R6 p. xvi

SOLUTIONS FOR ALL MATHEMATICS Week 4 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	Find the LCM and HCF of numbers to at least 3-digit whole numbers, by inspection or factorisation	2.2 Act. 2.2 2.3 Act. 2.3	22–23 23–24	14–15	
15	List prime factors to at least 3-digit whole numbers	2.4 Act. 2.4	24–25	15	R3 p. viii
16	**Revision**	**Check what you know*	27	16	
17	**Solving problems** Solving problems involving whole numbers, including: Comparing two or more quantities of the same kind (ratio); Comparing two quantities of different kinds (**rate)**	3.1 Act. 3.1 3.2 Act. 3.2	29–31 32–33	17 18–20	7 p. 14 8 p. 16
18	**Solving problems** Solving problems involving whole numbers, including: Sharing in a given ratio where the whole is given (ratio)	3.3 Act. 3.3	34–35	21	

SOLUTIONS FOR ALL MATHEMATICS Week 5 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	Solving problems involving whole numbers, including: Comparing two quantities of different kinds **(rate)**	3.3 Act. 3.3	34–35	21	7 p. 15
20	Solve problems that involve whole numbers, in financial contexts such as: Profit, loss and discount	3.5 Act. 3.5	36–37	21–22	10 p. 20
21	Solve problems that involve decimal fractions in financial contexts such as: Budgets; Accounts; Loans; Interest	3.6 Act. 3.6	38–39	22	11 p. 22
22	**Revision:** Whole numbers; Multiples and factors; Problem solving	**Check what you know*	41	23	5–6 pp. 10–12
23	**Formal assessment: Assignment**	Task		303–305 Memo 306–307	

SOLUTIONS FOR ALL MATHEMATICS Week 6 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	**Exponents p. 43** **Mental calculations** Determine squares to at least 12^2 and their **square roots**	4.1 *Act. 4.1	43–44	24–25	14a p. 28
25	**Mental calculations** Determine cubes to at least 6^3 and their **cube roots**	4.1 *Act. 4.1	44–45	26–27	14b p. 30
26	**Comparing and representing numbers in exponential form** Compare and represent whole numbers in exponential form: $ab = a \times a \times a \times ...$ for b number of factors	4.2 Act. 4.2	45–46	26–27	19 p. 42
27	**Calculations using numbers in exponential form p. 44** Recognise and use the appropriate laws of operations with numbers	4.3	48	27	
28	Calculations involving exponents and square and cube roots	4.4	49	28	17 p. 38

SOLUTIONS FOR ALL MATHEMATICS Week 7 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	Perform calculations involving all four operations using numbers in exponential form, limited to exponents up to 5, and square and cube roots	*5.1 Act. 5.1	52–53	30–31	18 p. 40
30	**Revision:** Exponents	*Check what you know	50, 55	32	
31	**Measuring angles** Accurately use a protractor to measure and classify angles	6.1 Act. 6.1	56–57	33–35	22a p. 50
32	Classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 108° (reflex angles)	6.2 *Act. 6.2 6.3 *Act. 6.3	61–63	36–37	20 pp. 44–45 21a pp. 46–47
33	**Constructions** Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Parallel lines; Perpendicular lines	7.1 Act. 7.1	40–42		24 p. 56

SOLUTIONS FOR ALL MATHEMATICS Week 8 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Circles; Circle designs	7.4 Act. 7.4 7.5 Act. 7.5	72–74	42–43	26 p. 62
35	Revision: Geometry of straight lines and construction of geometric figures	*	76–77	45	
36	**Geometry of 2-D shapes p. 46** **Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on: **Triangles**	8.1 Act. 8.1	78–81	49	27a p. 64
37	**Classifying 2-D shapes** Describe, sort, name and compare triangles according to their sides and angles, focusing on: **Quadrilaterals**	8.4 Act. 8.4	84–86	50	28a p. 68
38	Describe and name parts of a circle	9.1 Act. 9.1	94–97	56–59	

SOLUTIONS FOR ALL MATHEMATICS Week 9 *Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	**Similar and congruent 2-D shapes** Recognise and describe similar and congruent figures by comparing: Shape; Size	9.2 Act. 9.3 9.4	99–102	60–61	29 p. 72
40	**Revision: Geometry of 2-D shapes**	**Check what you know*	91	61	
41	**Formal assessment: Test**			275 Memo 276	
42	Revision	Unit 1	104	62	
43	Revision	Unit 2	105	63	

SOLUTIONS FOR ALL MATHEMATICS Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Revision	Unit 3	106	63	
45	Remediate test			277–278	
46	Revision	Unit 4	107	64	
47	Revision				
48	Revision				

1.9 *Spot on Mathematics*

SPOT ON MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Whole numbers p. 40** Ordering, comparing and representing whole numbers to at least 9-digit numbers	Unit 2	4–5	41	R1 p. ii 1–2 pp. 2–3
2	Recognise and represent prime numbers to at least 100; Rounding off numbers to the nearest 5, 10, 100 or 1 000	Unit 3 Unit 4	7–8 9–10	42 45	R3 p. viii R4 p. x
3	Properties of whole numbers; Order of operations; Recognise and use the commutative property with whole numbers	Unit 5 Unit 6	11 12	47 48	1 p. 2

SPOT ON MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
4	Recognise and use the **associative property** with whole numbers	Unit 7	13	49	2 p. 4
5	Recognise and use the **distributive property** with whole numbers	Unit 8	14	50	3 p. 6
6	Recognise and use 0 and 1 in terms of its **additive and multiplicative property** (identity element for addition and multiplication)	Unit 9	15	51	4 p. 8
7	**Calculations with whole numbers** without use of calculators: **Addition and subtraction** of whole numbers to at least 6-digit numbers	Unit 10	16–17	52	R5a pp. xii–xiii
8	**Calculations with whole numbers** without use of calculators: **Multiplication** of at least whole 4-digit by 2-digit numbers	Unit 10	18–20	53	R5b p. xiv

SPOT ON MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
9	**Calculations with whole numbers** without use of calculator: **Division** of at least whole 4-digit by 2-digit numbers	Unit 10	18–20	53	R5b p. xv
10	Using all four operations on whole numbers, **estimating and using calculators** where appropriate	Unit 10	18–20	53	
11	**Multiples and factors** of 2-digit and 3-digit whole numbers	Unit 11	21–22	54	R56 p. xvii
12	**Prime factors** of numbers to at least 100 List prime factors of numbers to at least 3-digit whole numbers	Unit 12	23	55	R3 p. viii
13	**Solving problems** Comparing two or more quantities of the same kind (ratio)	Unit 13	24–26	58	7 p. 14

SPOT ON MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
14	Comparing two quantities of different kinds (rate)	Unit 14	27–28	61	8 p. 16
15	**Solving problems p. 42** Solve problems that involve whole numbers, in financial contexts such as: Profit, loss and discount	Unit 15	29	62	10 p. 20
16	Solve problems that involve decimal fractions in financial contexts such as: Budgets; Accounts; Loans	Unit 15	30–31	63	11 p. 22 12 p. 24
17	**Revision:** Whole numbers; Multiples and factors; Problem solving	Act. 3, 5, 8, 11, 12, 13, 14, 17, 20, 23	33–34	65	
18	**Exponents p. 43** Comparing and representing numbers in exponential form	Unit 1	36–37	68	16 p. 36

SPOT ON MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
19	Determine squares to at least 12^2 and their **square roots**	Unit 2	38–39		15a p. 32
20	Determine cubes to at least 6^3 and their **cube roots**	Unit 3	40	70	15b p. 34
21	**Calculations using numbers in exponential form** Use the appropriate laws of operations with numbers involving exponents and square and cube roots	Unit 4	41	71	17 p. 38
22	Calculations involving all four operations using numbers in exponential form, limited to exponents up to 5, and square and cube roots	Unit 4	41	71	18 p. 40
23	**Solving problems** In contexts involving numbers in exponential form	Unit 4	42	72	

SPOT ON MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
24	**Revision:** Exponents	Act. 1, 3, 6, 7	44	74	
25	**Measuring angles p. 45** Accurately use a **protractor** to measure and classify angles: < 90° (acute angles); Right angles; > 90° (obtuse angles); Straight angles; > 108° (reflex angles)	Unit 1 e.g. 1 Act. 3 No. 1b	46–50	76	20 pp. 44–45 21a pp. 46–47
26	**Constructions** Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Angles, to one degree of accuracy	Unit 2	51–53	78	25a p. 58
27	Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Circles	Unit 3	54–55	80	26 p. 62
28	Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Perpendicular lines	Unit 4	56–57	81	24 p. 57

SPOT ON MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
29	Accurately construct geometric figures appropriately using **compass, ruler and protractor**, including: Parallel lines	Unit 4	58	82	24 p. 57
30	**Revision:** Geometry of straight lines and construction of geometric figures	Act. 5–6	61–62	84	
31	**Classifying 2-D shapes p. 46** Describe, sort, name and compare **triangles** according to their sides and angles, focusing on: Equilateral triangles; Isosceles triangles; Right-angled triangles	Unit 1	64–67	87	27a p. 64 27b p. 66
32	Describe, sort, name and compare **quadrilaterals** in terms of: Length of sides; Parallel and perpendicular sides; Size of angles (right-angles or not)	Unit 2	68–69	89	28a p. 68 28b p. 70
33	Describe and name parts of a **circle**	Unit 3	70–71	90	26 p. 62

SPOT ON MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
34	**Similar and congruent 2-D shapes p. 47** Recognise and describe similar and congruent figures by comparing: Shape; Size	Unit 4	72–74	91	29 p. 72
35	**Solving problems** Solve simple geometric problems involving unknown sides and angles in triangles and quadrilaterals, using known properties	Unit 5	75–76	92	
36	**Revision:** Geometry of 2-D shapes	Unit 4	84–85	94	
37	**Formal assessment: Assignment**	Task		105–106 Memo 107–108	
38	**Geometry of straight lines p. 47** Types of lines	Unit 4	56		

SPOT ON MATHEMATICS Week 9					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
39	**Define:** Parallel lines; Perpendicular lines	Unit 4	56	82	24 p. 56
40	Revision	Unit 1	80–81	96	
41	Remediate assignment	Task		105–106 107–108	
42	Revision	Unit 1	82		
43	**Formal assessment: Test**	Test		101–102 Memo 103–104	

SPOT ON MATHEMATICS Week 10					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
44	Revision				
45	Remediate test				
46	Remediate test				
47	Revision				
48	Revision				

2. PLANNERS FOR TERM 2

2.1 *Clever: Keeping Mathematics Simple*

CLEVER: KEEPING MATHEMATICS SIMPLE Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS** Common fractions (Grade 6 revision) **p. 49**	1b, c 2a, c 3c, 4	111	83	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – using multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fractions** – using equivalent fractions to **add and subtract** common fractions	Ex. 1 1–4 Ex. 2 d, f Ex. 3 1d, h 5b, c; 8b	114 116 120	84	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	Ex. 4 1e, i 2e, i Ex. 5 1e, h	124	89–90	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 6 1c, f 2b, g 3	125	94–96	Worksheet 33 p. 81
5	**Revision of common fractions**	Ex. 5 1d, f; 2; 3j		97	

CLEVER: KEEPING MATHEMATICS SIMPLE Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	Ex. 1 1a, g 2d, e; 4	129	99	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	Fractions of whole numbers	Ex. 7 3b, d, e	129	99	
8	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	Ex. 8 2–4	129	100	Worksheet 38 pp. 90–91
9	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	Ex. 8 5–7	129–130	100	Worksheet 38 pp. 90–91
10	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6); Calculate percentage increase or decrease of whole numbers; Solve problems in contexts involving percentages	Ex. 9 2a, e	157	100	Worksheet 40 p. 94

CLEVER: KEEPING MATHEMATICS SIMPLE Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number	Ex. 9 2f, h	155	100–102	Worksheet 42 p. 98
12	Revision **pp. 49–50**	Ex. 9 4–6	158	104–105	
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	Ex. 9 3	157	107–109	Worksheet 42 p. 99
14	**Conversions p. 52** Revise Grade 6 conversions; Equivalence between common fractions and decimal fraction forms of the same number; Equivalence between common fractions, decimal fractions and percentage of the same number	Ex. 7 2	153	111	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	Ex. 6 2a Ex. 7 1	153	119	Worksheet 44 p. 102

CLEVER: KEEPING MATHEMATICS SIMPLE Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TGpp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places); Multiplication by 10 and 100	Ex. 6 2a, e	145	124	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** To at least 3 decimal places by whole numbers	Ex. 7 3	147	125	Worksheet 46 p. 106
18	**Multiplication of decimal fractions** To at least 2 decimal places by decimal fractions to at least 1 decimal place	Ex. 8 4a, e	154	126	Worksheet 46 p. 107
19	**Division of decimal fractions** To at least 3 decimal places by whole numbers **Problem solving** Solve problems in context involving decimal fractions	Ex. 7 5a–c	151	126	Worksheet 47 p. 108
20	**Revision**				

CLEVER: KEEPING MATHEMATICS SIMPLE Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	Revision **pp. 50–52**				
22	**PATTERNS, FUNCTIONS AND ALGEBRA FUNCTIONS; RELATIONSHIPS p. 53** **Input and output values** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	Ex. 1 a, d	151–162	132–133	Worksheet 48 p. 110 Worksheet 50 p. 114
23	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	Ex. 2 1, 2	165	139–142	Worksheet 51 p. 116
24	Revision **pp. 53–55**	Ex. 2 3, 4	166	142	
25	**Formal assessment: Test** Use one from another LTSM, or use the exemplar in Section C of this planner				

CLEVER KEEPING MATHEMATICS SIMPLE Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons	Ex. 1 1a, d 2a, d	168–170	143–144	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	Ex. 1 3–5	170–171	148	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles	Ex. 2 1a, d 2a, d Ex. 4 a, c	172 177–178	153	Worksheet 53 p. 120
29	**Perimeter and the area of a triangle** Use formulae to calculate perimeter and area of: • triangles	Ex. 6 1a, c 3a, c	179–182	154–155	Worksheet 53 p. 120 Worksheet 54 p. 122
30	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solve equations using formulae to at least one decimal place	Ex. 6 4a, b	182–183	156–157	Worksheet 53 p. 121 Worksheet 54 p. 123

CLEVER: KEEPING MATHEMATICS SIMPLE Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	**Conversions of SI units** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$	Ex. 7 1–4	183–184	156	Worksheet 55 p. 124
32	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area of: • cubes	Ex. 1 1–3	188–189	164	Worksheet 56 pp. 126–129
33	**Surface area and volume p. 57** Use appropriate formulae to calculate the volume of: • cubes	Ex. 2 1a–c 3c	191–192	164	Worksheet 56 pp. 126–129
34	Use appropriate formulae to calculate the volume and capacity of: • rectangular prisms	Ex. 2 2a–d 3a, b, d 4–7	191–192	164–165	Worksheet 58 p. 132
35	Use appropriate formulae to calculate the surface area, volume and capacity of: • cubes • rectangular prisms	Ex. 3 1–4	194–195	165–166	Worksheet 57b p. 130 Worksheet 59 p. 134

CLEVER: KEEPING MATHEMATICS SIMPLE Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	**Formal assessment: Investigation**	Task	197	172	
37	**Conversions p. 57** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$ • $mm^3 \longleftrightarrow cm^3$ • $cm^3 \longleftrightarrow m^3$ **Equivalence p. 57** Use equivalence between units when solving problems: • $mm^2 \longleftrightarrow cm^2$ • $1\ cm^3 \longleftrightarrow m\ell$ • $1\ m^3 \longleftrightarrow 1\ k\ell$	Example Ex. 3 5–8	193–194 195	 166	
38	Revision: **Measurement pp. 55–56**	Ex. 3 9–12	195–196	166–169	
39	**Revision: Measurement**	199 Question 1a–d	198	175	Worksheet 60 p. 136
40	**Remediate investigation**		197	172–174	

CLEVER: KEEPING MATHEMATICS SIMPLE Week 9: Catch-up, complete and revise work – follow our plan or design your own					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	Revision: Measurement			177 Question 1a–e Memo 182–183	Worksheet 61 p. 138
42	Revision: Space and Shape			178–179 Question 2a–k Memo 183–184	Worksheet 62 p. 140
43	Revision: Numbers, Operations and Relationships			180 Question 3–6 Memo 184–185	Worksheet 62 p. 141 Worksheet 63 p. 143
44	Revision: Patterns, Functions and Algebra			180–181 Question 7 Memo 185–186	Worksheet 63 p. 143
45	Consolidation and remediation				Worksheet 64 p. 144

CLEVER: KEEPING MATHEMATICS SIMPLE Week 10: Revision and mid-year examination – plan your week

2.2 *Mathematics Today*

MATHEMATICS TODAY Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS** Common fractions (Grade 6 revision) **p. 49**	Ex. 6.1 1, 2, 4	183	26	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – use knowledge of multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fraction**s – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 6.2 1, 3, 5, 7 Ex. 6.3 1, 2	84 85	26	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	Ex. 6.7 1, 6, 7, 8	88	27	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 6.8 1, 6, 9, 10	89	27	Worksheet 33 p. 81
5	**Revision of common fractions**	Ex. 6.7 3, 10, 12 Ex. 6.8 5, 8, 11	88–89	27	

MATHEMATICS TODAY Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	Ex. 6.10 1, 2, 4, 8 Ex. 6.11	90–91	28	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	**Problem solving p. 50** Solve problems in contexts involving common fractions	Ex. 6.12 1–3 Ex. 6.13 1–2	92–93	28	Worksheet 38 pp. 90–91
8	**Problem solving p. 50** Mixed numbers and finding fractions of whole numbers	Ex 6.14	94	28	
9	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6); Calculate percentage increase or decrease of whole numbers	Ex. 6.15 1, 2 Ex. 6.16 1, 2	95–96	29	Worksheet 40 p. 94
10	**Percentages of fractions p. 50** Solve problems in contexts involving percentages	Ex 6.17	96	29	

MATHEMATICS TODAY Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number	Ex. 6.18 1, 5, 7 Ex. 6.19 1, 2	97–98	28	Worksheet 42 p. 98
12	Revision **pp. 49–50**	Ex. 6.20 1, 2, 3	98	29	
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	Ex. 6.21 1, 2, 3	99	29	Worksheet 42 p. 99
14	**Conversions p. 52** Revise Grade 6 conversions; Equivalence between common fractions and decimal fraction forms of the same number; Equivalence between common fractions, decimal fractions and percentage of the same number	Revision Test 1, 3, 4, 5, 7, 8, 10	100	30	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	Ex. 7.1 1, 3, 5	102	31	Worksheet 44 p. 102

MATHEMATICS TODAY Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TGpp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places); Multiplication by 10 and 100	Ex. 7.3 2, 4 Ex. 7.4 3	104–105	31–32	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** To at least 3 decimal places by whole numbers	Ex. 7.5 2 Ex. 7.6 3	107–108	32	Worksheet 46 p. 106
18	**Multiplication of decimal fractions** To at least 2 decimal places by decimal fractions to at least 1 decimal place	Ex. 7.6 7, 8	109	33–34	Worksheet 46 p. 107
19	**Division of decimal fractions** To at least 3 decimal places by whole numbers	Ex. 7.7 2 Ex. 7.8 8	110–111	34	Worksheet 47 p. 108
20	**Problem solving** Solve problems in context involving decimal fractions	Ex. 7.9 1, 3, 5	112	34	Worksheet 47 p. 109

MATHEMATICS TODAY Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	Revision **pp. 50–52**	1, 3, 5, 7, 11	114	36	
22	**PATTERNS, FUNCTIONS AND ALGEBRA FUNCTIONS; RELATIONSHIPS p. 53** **Input and output values** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	Ex. 8.1 1, 3	117–118	37	Worksheet 48 p. 110 Worksheet 50 p. 114
23	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	Ex. 8.2 2 Ex. 8.3 1	111–121	38	Worksheet 51 p. 116
24	Revision **pp. 53–55**	1, 2, 3	123	39	
25	**Formal assessment: Test**	Task		41	

MATHEMATICS TODAY Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons	Ex. 9.1 2, 3, 5	127–128	44	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	Ex. 9.2 2, 5, 6	129	44	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles	Ex. 9.3 1, 6	132	44	Worksheet 53 p. 120
29	**Perimeter and the area of a triangle** Use formulae to calculate perimeter and area of: • triangles	Ex. 9.4 1, 3, 5	134–135	45	Worksheet 53 p. 120 Worksheet 54 p. 122
30	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solving equations using formulae to at least one decimal place	Ex. 9.6 1, 3, 5, 8	136–137	45	Worksheet 53 p. 121 Worksheet 54 p. 123

MATHEMATICS TODAY Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	**Conversions of SI units** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$	Ex. 9.1 1 Ex. 9.5 1–7	127	44 45	Worksheet 55 p. 124
32	**Revision: Area and perimeter**	Revision test 1–9	138	45	
33	**Conversions p. 57** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$ • $mm^3 \longleftrightarrow cm^3$ • $cm^3 \longleftrightarrow m^3$ **Surface area and volume p. 57** Use appropriate formulae to calculate the volume of: • rectangular prisms	Ex. 10.1 1–3 4–5	140–141	47	Worksheet 56 pp. 126–129
34	**Surface area and volume p. 57** Use appropriate formulae to calculate the volume of: • rectangular prisms	Ex. 10.1 6–10	141	47	Worksheet 58 p. 132
35	**Surface area and volume p. 57** Use appropriate formulae to calculate the volume of: • cubes	Ex. 10.2 1–5	142	47	Worksheet 57b p. 130 Worksheet 59 p. 134

MATHEMATICS TODAY Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface and volume of: • rectangular prisms	Ex. 10.5 1–6	147	48	
37	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface and volume of: • cubes	Ex. 10.6 1–4	148	48	
38	**Surface area and volume p. 57** Describe the interrelationship between surface area and the volume of: • cubes • rectangular prisms	Ex. 10.7 1–2			
39	**Formal assessment: Investigation**	Task	154	50	
40	**Equivalence p. 57** Use equivalence between units when solving problems: • $mm^2 \longleftrightarrow cm^2$ • 1 $cm^3 \longleftrightarrow m\ell^3$ • 1 $m^3 \longleftrightarrow 1\ k\ell^2$	Ex. 10.3 1–8	143–144	47	

MATHEMATICS TODAY Week 9: Catch-up, complete and revise work – follow our plan or design your own					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	Volume and capacity in everyday life	Ex. 10.4 1–8	145	47–48	Worksheet 61 p. 138
42	Revision: Volume, capacity and surface area	Ex. 10.8 1–5	151–152	48 or PWB Topic 10	Worksheet 62 p. 140
43	Revision: Common fractions			PWB Topic 6	Worksheet 62 p. 141
44	Revision: Decimal fractions			PWB Topic 7	Worksheet 63 pp. 141–142
45	Revision: Functions and relationships			PWB Topic 8	Worksheet 64 p. 144

MATHEMATICS TODAY Week 10: Revision and mid-year examination – plan your week

2.3 *Oxford Headstart Mathematics*

OXFORD HEADSTART MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS p. 49** Common fractions (Grade 6 revision)	1, 3	124	104	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – use knowledge of multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	1, 2 3, 4	126–127 128	107 108	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	1	132	112	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	2	133	113	Worksheet 33 p. 81
5	**Revision of common fractions**	3, 4	134, 136	114–115	

OXFORD HEADSTART MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	6	138	116	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	Fractions of whole numbers	7	138	116	
8	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	8, 9	139	117	Worksheet 38 pp. 90–91
9	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6)	3	144–145	121–122	
10	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6); Calculate percentage increase or decrease of whole numbers; Solve problems in contexts involving percentages	4	145–146	122–123	Worksheet 40 p. 94

OXFORD HEADSTART MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number	3	144	121	Worksheet 42 p. 98
12	Revision **pp. 49–50**	4	146	122–123	
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	1	151	126–127	Worksheet 42 p. 99
14	**Conversions p. 52** Revise Grade 6 conversions; Equivalence between common fractions and decimal fraction forms of the same number; Equivalence between common fractions, decimal fractions and percentage of the same number	2	152	127	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	3	153	129	Worksheet 44 p. 102

OXFORD HEADSTART MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TGpp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places); Multiplication by 10 and 100	1, 2	158	133	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** To at least 3 decimal places by whole numbers	5	161	134	Worksheet 46 p. 106
18	**Multiplication of decimal fractions** To at least 2 decimal places by decimal fractions to at least 1 decimal place	6	161	135	Worksheet 46 p. 107
19	**Division of decimal fractions** To at least 3 decimal places by whole numbers	7 No. 1–4	162	136	Worksheet 47 p. 108
20	**Problem solving** Solve problems in context involving decimal fractions	7 No. 5–7	162	136	Worksheet 47 p. 109

OXFORD HEADSTART MATHEMATICS Week 5 # Supplement					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	Revision **pp. 50–52**	1–3	164	138	
22	**PATTERNS, FUNCTIONS AND ALGEBRA FUNCTIONS; RELATIONSHIPS p. 53** **Input and output values** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	1, 3	179	148–149	Worksheet 48 p. 110 Worksheet 50 p. 114
23	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	4 1	176 179	146 147	Worksheet 51 p. 116
24	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	2	180	147	
25	**Formal assessment: Test** Use one from another LTSM, or use the exemplar in Section C of this planner				

OXFORD HEADSTART MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons	1	185	154	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	2	186	155	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles • triangles	1	189	158	Worksheet 53 p. 120
29	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solve equations using formulae to at least one decimal place	2	190	159	Worksheet 53 p. 121 Worksheet 54 p. 123
30	**Formal assessment: Investigation: Option 1**	Task	187	156	

OXFORD HEADSTART MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	**Conversions of SI units** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$	3 4	186–187 194	155 161	Worksheet 55 p. 124
32	Interrelationships between squares and rectangles	3	192–193	161	
33	Revision: **Measurement pp. 55–56**	5	195	1162	
34	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area of: • cubes • rectangular prisms	1 2	198 200	163–164 164	Worksheet 56 pp. 126–129
35	**Surface area and volume p. 57** Use appropriate formulae to calculate the volume and capacity of: • cubes • rectangular prisms	1 1–5	204	166	Worksheet 58 p. 132

OXFORD HEADSTART MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB Act.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	**Surface area and volume p. 57** Use appropriate formulae to calculate the volume and capacity of: • cubes • rectangular prisms	1 6–9	204–205	166–167	Worksheet 57b p. 130 Worksheet 59 p. 134
37	**Conversions p. 57** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$ • $mm^3 \longleftrightarrow cm^3$ • $cm^3 \longleftrightarrow m^3$ **Equivalence p. 57** Use equivalence between units when solving problems: • $mm^2 \longleftrightarrow cm^2$ • $1\ cm^3 \longleftrightarrow m\ell$ • $1\ m^3 \longleftrightarrow 1\ k\ell$	2	205	167	
38	**Formal assessment: Investigation: Option 2**		207	169	
39	**Problem solving** Solve problems involving surface area, volume and capacity	3 1–4	206	167	Worksheet 60 p. 136
40	**Problem solving** Solve problems involving surface area, volume and capacity	3 5–7	206–207	167–168	

OXFORD HEADSTART MATHEMATICS
Week 9: Catch-up, complete and revise work – follow our plan or design your own

Day	CAPS concepts and skills	LB Act.	LB pp.	TG pp.	DBE workbook
41	**Revision: Common fractions**		147	123	Worksheet 61 p. 138
42	**Revision: Decimal fractions**	5	167 168	139 140	Worksheet 62 p. 140 Worksheet 63 p. 142
43	**Revision: Functions and relationships**		181 1–9	150–151	Worksheet 62 p. 141
44	**Revision: Surface area and volume**		208 1–7	168–169	Worksheet 63 p. 143
45	Consolidation and remediation	Exam exemplar	209–213	171–172	Worksheet 64 p. 144

OXFORD HEADSTART MATHEMATICS
Week 10: Revision and mid-year examination – plan your week

2.4 *Oxford Successful Mathematics*

OXFORD SUCCESSFUL MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS p. 49** Common fractions (Grade 6 revision)	Ex. 1 1, 3	119–121	83–85	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – use knowledge of multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 2 1, 2, 3	123	85–86	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	Ex. 1 1, 2	126	87–88	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 2 1, 3, 4, 6	128	88	Worksheet 33 p. 81
5	**Revision of common fractions**	Ex. 1 4, 5 Ex. 2 2, 5	127–128	88	

OXFORD SUCCESSFUL MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	Ex. 1 1, 2	133–135	91–92	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	Fractions of whole numbers	Ex. 2 1, 2	136	92	
8	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	Ex. 3 1–5	136–137	93	Worksheet 38 pp. 90–91
9	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	Ex. 3 6–9	136–137	93–94	Worksheet 38 pp. 90–91
10	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6); Calculate percentage increase or decrease of whole numbers; Solve problems in contexts involving percentages	Ex. 1 1, 2	138–140	94–95	Worksheet 40 p. 94

OXFORD SUCCESSFUL MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number	Ex. 1 1, 3	144–145	97–98	Worksheet 42 p. 98
12	Consolidation and remediation	1, 3, 6, 9	149	100	
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	Ex. 1 1, 4, 8, 10 Ex. 2 2, 4	150–153	102–103	Worksheet 42 p. 99
14	**Conversions p. 52** Revise Grade 6 conversions; Equivalence between common fractions and decimal fraction forms of the same number; Equivalence between common fractions, decimal fractions and percentage of the same number	Ex. 2 6	153	104	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	Ex. 1 1, 2	154–155	104–105	Worksheet 44 p. 102

OXFORD SUCCESSFUL MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TGpp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places); Multiplication by 10 and 100	Ex. 1 4, 6, 8	156	106	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** To at least 3 decimal places by whole numbers; To at least 2 decimal places by decimal fractions to at least 1 decimal place	Ex. 1 2, 4 Ex. 2 2, 3	157–159 160	109–111	Worksheet 46 pp. 106–107
18	**Division of decimal fractions** To at least 3 decimal places by whole numbers	Ex. 1 1, 3	163	113	Worksheet 47 p. 108
19	**Problem solving** Solve problems in context involving decimal fractions	Ex. 1 2, 4, 5, 6	164–165	114–115	Worksheet 47 p. 109
20	Revision **pp. 50–52**	2, 3, 4, 6, 7, 8	167	116	

OXFORD SUCCESSFUL MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	**Patterns, functions and algebra functions; relationships p. 53** **Input and output values:** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	Ex. 1 1, 2	168–170	117–118	Worksheet 48 p. 110 Worksheet 50 p. 114
22	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	Ex. 2 2, 4	178–179	122–123	Worksheet 51 p. 116
23	**Formal assessment: Investigation: Option 1**	Task	379	250	
24	Revision **pp. 53–55**	1, 2, 4	183	126	
25	**Formal assessment: Test**			252	

OXFORD SUCCESSFUL MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons	Ex. 1 1, 2, 3	185–187	127–129	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	Ex. 2 1, 2, 3 Ex. 1 2	189–190 131	131–132	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles • triangles	Ex. 2 1 Ex. 2	189 193–194	131–132	Worksheet 53 p. 120 Worksheet 54 p. 121
29	**Remediate test**				
30	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solving equations using formulae to at least one decimal place	Ex. 1 1, 3, 4	196–197	133–134	Worksheet 53 p. 121 Worksheet 54 p. 123

OXFORD SUCCESSFUL MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	**Conversions of SI units** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$	Ex. 1 1, 2, 3	204–205	138–139	Worksheet 55 p. 124
32	Interrelationships between squares and rectangles	Ex. 1 1, 2	201–203	138–139	
33	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area, volume and capacity of: • cubes	Ex. 1 1	208–209	141–142	Worksheet 56 pp. 126–129
34	Use appropriate formulae to calculate the surface area, volume and capacity of: • rectangular prisms	Ex. 1 2, 3	209–210	142–143	Worksheet 58 p. 132
35	Describe the interrelationship between surface area and the volume of: • cubes • rectangular prisms	2	212	143	Worksheet 57b p. 130 Worksheet 59 p. 134

OXFORD SUCCESSFUL MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	**Formal assessment: Investigation: Option 2**	Task	381	251	
37	**Conversions p. 57** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$ • $mm^3 \longleftrightarrow cm^3$ • $cm^3 \longleftrightarrow m^3$ **Equivalence p. 57** Use equivalence between units when solving problems: • $mm^2 \longleftrightarrow cm^2$ • $1\ cm^3 \longleftrightarrow m\ell$ • $1\ m^3 \longleftrightarrow 1\ k\ell$	Ex. 1 1, 3, 5	207	140–141	
38	Revision: **Measurement pp. 55–56**	1, 2	212	143	
39	**Volume of 3-D objects** Solve problems involving surface area, volume and capacity; Conversions and the volume of rectangular prisms	Ex. 1 3, 4 Ex. 1 1	204–205 208–209	140 142	Worksheet 60 p. 136
40	Volume and capacity in everyday life; Surface area of 3-D shapes	Ex. 1 2 Ex. 1 3	209 210	142	Worksheet 61 p. 138 Worksheet 62 p. 140

OXFORD SUCCESSFUL MATHEMATICS Week 9: Catch-up, complete and revise work – follow our plan or design your own					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	Consolidation: Common fractions Decimal fractions and percentages	1–9	149	100	Worksheet 64 p. 144
42	Consolidation: Decimal fractions	1–9	167	116	
43	Consolidation: Functions	1–5	183	126	
44	Consolidation: Area and perimeter	1–3	199	135	Worksheet 64 p. 144
45	Consolidation: Surface area and volume	1–2	212	143	

OXFORD SUCCESSFUL MATHEMATICS Week 10: Revision and mid-year examination – plan your week

2.5 *Platinum Mathematics*

PLATINUM MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS** Common fractions (Grade 6 Revision) **p. 49**	Ex. 6.1 1, 3, 4	78	37	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – use knowledge of multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 6.2 1, 3 Ex. 6.3 1, 2	79–81	38	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	Ex. 6.4 1b, d, f, h; 2a–d	82–83	38–40	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 6.5 1, 2	84	41	Worksheet 33 p. 81
5	**Revision of common fractions**	Ex. 6.3 3, 4 Ex. 6.4 1a, e Ex. 6.5 3, 4	79–84	40–41	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74

PLATINUM MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	Ex. 6.6 1, 3	85	41	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	Fractions of whole numbers	Ex. 6.7 1, 3, 4	86	41	
8	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	Ex. 6.8 5, 6, 7	88	42	Worksheet 38 pp. 90–91
9	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6); Calculate percentage increase or decrease of whole numbers; Solve problems in contexts involving percentages	Ex. 6.8 1–4	88	42	Worksheet 40 p. 94
10	**Formal assessment: Investigation**	Task	110–111	56	

PLATINUM MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number				Worksheet 42 p. 98
12	Revision and remediation of investigation **pp. 49–50**	1, 3, 5, 7, 12, 14	89	43	
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	Ex. 7.1 1–3	90	45–46	Worksheet 42 p. 99
14	**Conversions p. 52** Revise Grade 6 conversions; Equivalence between common fractions and decimal fraction forms of the same number; Equivalence between common fractions, decimal fractions and percentage of the same number	Ex. 7.2 4	91	47	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	Ex. 7.2 2, 3	91	47	Worksheet 44 p. 102

PLATINUM MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TGpp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places); Multiplication by 10 and 100	Ex. 7.6 2, 3	95–96	49	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** To at least 3 decimal places by whole numbers	Ex. 7.7 1, 3, 6	98	50	Worksheet 46 p. 106
18	**Multiplication of decimal fractions** To at least 2 decimal places by decimal fractions to at least 1 decimal place	Ex. 7.7 2, 5	98	50	Worksheet 46 p. 107
19	**Division of decimal fractions** To at least 3 decimal places by whole numbers	Ex. 7.7 5, 10 Ex. 7.8 3, 4	98–99	50	Worksheet 47 p. 108
20	**Problem solving** Solve problems in context involving decimal fractions	Ex. 7.8 10 Ex. 7.9 7, 8	99–100	50	Worksheet 47 p. 109

PLATINUM MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	Revision **pp. 50–52**	1, 4, 6, 12, 14, 15	101	51	
22	**PATTERNS, FUNCTIONS AND ALGEBRA FUNCTIONS; RELATIONSHIPS p. 53** **Input and output values** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	Ex. 8.1 1, 3 Ex. 8.5 1, 2 Ex. 8.6 3, 4	104 106–107	53	Worksheet 48 p. 110 Worksheet 50 p. 114
23	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	Ex. 8.3 2, 4	105	53	Worksheet 51 p. 116
24	Revision **pp. 53–55**	1, 3, 5, 6	109	54–55	
25	**Formal assessment: Test** Use one from another LTSM, or use the exemplar in Section C of this planner				

PLATINUM MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons **Conversions of SI units** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$	Ex. 9.1 1, 2, 3, 4	112–115	59–60	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	Ex. 9.2 5, 10	119–120	60	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles • triangles	Ex. 9.2 6, 7 Ex. 9.2 3a; 4a; 10d	119–120	60	Worksheet 53 p. 120 Worksheet 54 p. 122
29	**Remediate test**				
30	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solving equations using formulae to at least one decimal place	Ex. 9.3 2, 3, 4, 5	123–124	61	Worksheet 53 p. 121 Worksheet 54 p. 123

PLATINUM MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	Revision: **Measurement pp. 55–56**	1, 2, 4, 5, 9	125	61–62	Worksheet 55 p. 124
32	**Surface area and volume of 3-D solids** Identify different solids and calculate the number of vertices, edges and faces of each	Ex. 10.1 1–2 Ex. 10.2 2, 3, 6	126–127 129	64	
33	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area and volume of: • cubes • rectangular prisms	Example 1–4 Example 1–4	130 131–132		
34	**Surface area and volume p. 57** Describe the interrelationship between surface area and the volume of: • cubes	Challenge	132	64–65	
35	**Surface area and volume p. 57** Use appropriate formulae to calculate the volume and capacity of: • cubes • rectangular prisms **Conversions p. 57** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$ • $mm^3 \longleftrightarrow cm^3$ • $cm^3 \longleftrightarrow m^3$ **Equivalence p. 57** Use equivalence between units when solving problems: • $mm^2 \longleftrightarrow cm^2$ • $1\ cm^3 \longleftrightarrow m\ell$ • $1\ m^3 \longleftrightarrow 1\ k\ell$	Example 1–5 Ex. 10.3 1–5	133 134	64	Worksheet 56 pp. 126–129

PLATINUM MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area and volume of: • cubes • rectangular prisms	Example 1–2 Ex. 10.4 1, 2	135 136	66	
37	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area, volume and capacity of: • rectangular prisms	Ex. 10.4 3, 4	136	66	Worksheet 58 p. 132
38	**Revision: Perimeter and area**	3, 6, 7, 8, 10	125	63–64	
39	**Revision: Volume and surface area**	1–6	137	66	Worksheet 60 p. 136
40	**Revision: Volume and surface area**	7–13	137	66	

PLATINUM MATHEMATICS Week 9: Catch-up, complete work and revise – follow our plan or design your own					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	**Revision: Common fractions**			Topic 6 (TW A or B) Memo 215–216	Worksheet 61 p. 138
42	**Revision: Decimal fractions**			Topic 7 (TW A or B) Memo 218–219	Worksheet 62 p. 140 Worksheet 63 p. 142
43	**Revision: Functions and relations**			Topic 8 (TW A or B) Memo 218–219	Worksheet 62 p. 141
44	Revision: Perimeter and area			Topic 9 (TW A or B) Memo 219–220	Worksheet 63 p. 142
45	Revision: Surface area and volume			Topic 10 (TW A or B) Memo 221–223	Worksheet 64 p. 144

PLATINUM MATHEMATICS Week 10: Revision and mid-year examination – plan your week

2.6 *Premier Mathematics*

PREMIER MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS** Common fractions (Grade 6 Revision) **p. 49**	Ex. 1 1, 2	44	30	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – use knowledge of multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 1 4, 5, 6	44	30	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	Ex. 2 1a–e	47	31	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	Ex. 2 1f–j	47	31	Worksheet 33 p. 81
5	**Revision of common fractions**	Ex. 1 1–4 Ex. 2 1–3	74	45	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74

PREMIER MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	Ex. 2 2a–f	47	31	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	Fractions of whole numbers	Ex. 2 3a–c	48	31–32	
8	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	Ex. 3 1, 2	48	32	Worksheet 38 pp. 90–91
9	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	Ex. 3 3–5	49	32	Worksheet 38 pp. 90–91
10	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6)	Ex. 4 1, 3 Ex. 5 1–4	49–52	32–33	Worksheet 40 p. 94

PREMIER MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Percentages of fractions p. 50** Solve problems in contexts involving percentages	Ex. 6 1–6 Ex. 7 1–4	51–53	33 34	Worksheet 40 p. 94
12	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number	Ex. 8 Ex. 5	54 60	34–35 39	Worksheet 42 p. 98
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	Ex. 1 1a–e 2a–c 3a–c	55–56	35	Worksheet 42 p. 99
14	**Ordering and comparing decimal fractions p. 51** Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	Ex. 1 4 5a–e 6a–e 7a–e	56	36	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	Ex. 1 6d–h 7h–j	56	36	Worksheet 44 p. 102

PREMIER MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TGpp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places)	Ex. 2 1a, d, e 2b, e, h 3a–e	57	36	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** Multiplication by 10 and 100 To at least 3 decimal places by whole numbers	Ex. 3 1a–j 2 ai–v bi–v	58–59	37	Worksheet 46 p. 106
18	**Multiplication of decimal fractions** To at least 2 decimal places by decimal fractions to at least 1 decimal place	Ex. 3 3a–e 4a–d	59–60	37–38	Worksheet 46 p. 107
19	**Division of decimal fractions** To at least 3 decimal places by whole numbers	Ex. 4 1a–j 2a–e	59	38	Worksheet 47 p. 108
20	**Problem solving** Solve problems in context involving decimal fractions	Ex. 6 1–3	61	39	Worksheet 47 p. 109

PREMIER MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	**Problem solving** Solve problems in context involving decimal fractions Revision **pp. 50–52**	Ex. 6 4–7 Ex. 2–4	61 74–75	39 45–46	
22	**PATTERNS, FUNCTIONS AND ALGEBRA FUNCTIONS; RELATIONSHIPS p. 53** **Input and output values** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	Ex. 1 1a, b, c Ex. 2 1a, b	62–63	40	Worksheet 48 p. 110 Worksheet 50 p. 114
23	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	Ex. 2 2a, b 3a, b Ex. 3 1a, b, c 2a 3	64	40	Worksheet 51 p. 116
24	Revision **pp. 53–55**	Ex. 4–7	75–76	46–47	
25	**Formal assessment: Test**	Task		48–49 Question 1–5	

PREMIER MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons	Ex. 1 1a, d 2a–d	64–65	41	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	Ex. 2 1a–c 2a, d	66	41	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles • triangles	Ex. 2 2e, f, i	67	41	Worksheet 53 p. 120 Worksheet 54 p. 122
29	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solving equations using formulae to at least one decimal place	Ex. 3 a, b, c, d	67	42	Worksheet 53 p. 121 Worksheet 54 p. 123
30	**Formal assessment: Investigation** Perimeter and area	Question 1–10	68–69	42	

PREMIER MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	**Conversions of SI units** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$	Ex. 3 1–8	73	44	Worksheet 55 p. 124
32	Interrelationships between squares and rectangles	Ex. 1 1–10	70	43	
33	Revision: **Measurement pp. 55–56**	Ex. 8 1a–c 2a–e 3a–e, g	76–77	47	
34	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area, volume and capacity of: • cubes • rectangular prisms	Ex. 2 1a–e 2a–e	71–72	43	Worksheet 56 pp. 126–129 Worksheet 58 p. 132
35	**Surface area and volume p. 57** **Problem solving** Describe the interrelationship between surface area and the volume of cubes and rectangular prisms	Ex. 4 1–3	73	44	Worksheet 57b p. 130 Worksheet 59 p. 134

PREMIER MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	**Surface area and volume p. 57** **Problem solving** Describe the interrelationship between surface area and the volume of cubes and rectangular prisms	Ex. 4 4–7	73	44	
37	**Remediate test and investigation**			52–54	
38	**Revision: Surface area and volume p. 57**	Ex. 9 1, 2a–c	77–78	47	
39	**Revision: Surface area and volume p. 57**	Ex. 9 3, 4, 5	78	47	Worksheet 60 p. 136
40	**Revision: Surface area and volume p. 57**	Ex. 9 6, 7	78	47	

PREMIER MATHEMATICS Week 9: Catch-up, complete and revise work – follow our plan or design your own					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	Revision: Perimeter and area	Question 6 1–4		50, 54	Worksheet 61 p. 138
42	Revision: Surface area and volume	Question 6 5–8		51, 54	Worksheet 62 p. 140 Worksheet 63 p. 142
43	Revision: Common fractions, decimals and percentages	Ex. 1–6	74–75	45–47	Worksheet 62 p. 141
44	Revision: Functions, area and perimeter	Ex. 7–8	76–77	47	Worksheet 63 p. 143
45	Revision: Surface area and volume	Ex. 9	77–78	47	

PREMIER MATHEMATICS Week 10: Revision and mid-year examination – plan your week

2.7 *Sasol Inzalo Mathematics*

SASOL INZALO Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**Fractions pp. 49–51** Measuring accurately with parts of a unit: Describe the same length in different ways	1–8	97	105–110	30 pp. 74–75
2	The fraction notation Adding fractions: Bigger and smaller parts	8 1–5	100 100–101	110–112	31 pp. 76–77
3	Tenths and hundredths	1–9	101–103	112–113	32 pp. 78–79
4	Tenths and hundredths (percentages)	10–15	101–103	113–114	33 pp. 80–81
5	Thousandths, hundredths and tenths	1–5	103	114	34 pp. 82–83

SASOL INZALO Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	Fractions of a fraction	1–7	104–105	115	35 pp. 84–85
7	Fractions of a fraction	8–14	104–105	116	36 pp. 86–87
8	Multiplying with fractions	1–8	106–109	117–119	37 pp. 88–89
9	Multiplying with fractions Ordering and comparing fractions	9–12 1–3	106–109 109	119–120 120–121	38 pp. 90–92
10	**The decimal notation for fractions** Other symbols for tenths and hundredths: Tenths, hundreds again … … And thousandths	6 1–2	111–112 112	123–125	39 pp. 92–93

SASOL INZALO Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	Percentage and decimal fractions: Hundredths percentages and decimals	4–6, 8–9	112–114	125–127	40 pp. 96–97
12	**Formal assessment: Investigation** Make up one of your own or use one from another LTSM				
13	Decimal measurements: Measuring on a number line More decimal concepts: Place value	2–3 1–2	116 117	128–129 130–131	41 pp. 96–97
14	Ordering and comparing decimal fractions	1, 2a–b, 3, 5	118–119	131–132	42 pp. 98–99
15	Rounding off: Saying it nearly but not quite; Round off to help you calculate	1–3 1–3	119–120	132–133	43 pp. 100–101

SASOL INZALO Week 4 * Select					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
16	Addition and subtraction with decimal fractions: Mental calculations; Some real-life problems	1–2 1–6*	120–121	133–134	44 pp. 102–103
17	Return the investigation; Go over the answers and allow the learners time to do corrections				
18	Multiplication and decimal fractions: The power of ten	1–4	122–124	135–136	45 pp. 104–105
19	Multiplication and decimal fractions: Multiplying decimals with numbers; Multiplying decimals with decimals	1–3 1–2	123–124	136–137	46 pp. 106–107
20	Division and decimal fractions	1–7	124–125	138	

SASOL INZALO Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	**Functions and relationships pp. 53–55** Constant and variable quantities	1–3	126–127	137–147	47 pp. 108–109
22	Different ways to describe relationships	1–5	127–131	141–143	48 pp. 110–111
23	Different ways to describe relationships	6–9	127–131	144–145	49 pp. 112–113
24	**Perimeter and area of 2-D shapes p. 56** Perimeter of polygons	1–2	133	147–148	50 pp. 116–117
25	**Formal assessment: Test** Use a test of your own or use a test from the LB of another LTSM				

SASOL INZALO Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
25	Perimeter formulae: Applying perimeter formulae	1–8	134	149	51 pp. 116–117
27	Area and square units: Square units to measure area; Conversion of units	1–2 1–2	135–136	150–151	52 pp. 118–119
28	Area of square and rectangle: Investigating the area of squares and rectangles	1–3	137–138	152	53 pp. 120–121
29	Area of square and rectangle: Formulae: Area of rectangles and squares; Applying the formulae	1–3	138–141	153–154	54 pp. 122–123
30	Return the test; Discuss the solutions with the learners and allow them time to do corrections				

SASOL INZALO Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	Area of square and rectangle: Applying the formulae	4–8	139–141	155	55 pp. 124–125
32	Area of triangles: Heights and bases of triangles	1–2	141–142	156–157	56 pp. 126–127
33	Area of triangles: Formulae: Area of triangles; Applying the area formula	1–3	143–144	158–159	57a pp. 128–129
34	**Surface area and volume of 3-D objects p. 57** Surface area of cubes and rectangular prisms: Investigating surface area Using nets of rectangular prisms and cubes	1–5 1–6	146–147	161–164	57b pp. 130–131
35	Surface area of cubes and rectangular prisms: Working out surface areas	1–4	148–149	164–165	58 pp. 132–133

SASOL INZALO Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	Volume of rectangular prims: Equilateral, isosceles, scalene and right-angled triangles	1–2	150–151	166–167	59 pp. 134–135
37	Formula to calculate volume: Applying the formula	1–5	151–153	167–169	60 pp. 136–137
38	Converting between cubic units: Cubic units to measure volume; Working with cubic units	1–8	153–155	169–171	61 pp. 138–139
39	Volume and capacity: Equivalent units for volume and capacity	1–3	155–156	171–172	62 pp. 140–141
40	Volume and capacity: Equivalent units for volume and capacity	4–5	157	173	63 pp. 142–143

SASOL INZALO **Week 9: Catch up, complete and revise work – follow our plan or design your own**					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	Revision: Fractions worksheet	1–8	110	121	64 pp. 144–145
42	Revision: Linking flow diagrams, tables of values, and rules	1–3	132	146	
43	Revision: Perimeter and area worksheets	1–2	145	160	
44	Revision: Surface area and volume worksheets	1–6	158	174	
45	Consolidation and revision				

SASOL INZALO **Week 10: Revision and mid-year examination – plan your week**

2.8 *Solutions for All Mathematics*

SOLUTIONS FOR ALL MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS** Common fractions (Grade 6 Revision) **p. 49**	11.2 a, b 11.1 3c–d, 4	115 116	73	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – use knowledge of multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	11.1 1a, b 11.2 3a, 4d	116 119	75 76	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	11.3 1c–d	122	77	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	11.3 2a–b	122	77	Worksheet 33 p. 81
5	**Revision of common fractions**	11.6	124	79	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74

SOLUTIONS FOR ALL MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	11.4 2a–d	123	78	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	Fractions of whole numbers	11.5	125	79	
8	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	11.4 2f 11.7 2	123 126	78	Worksheet 38 pp. 90–91
9	**Formal assessment: Investigation**			281	
10	**Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6); Calculate percentage increase or decrease of whole numbers; Solve problems in contexts involving percentages	12.2 1a(i), 2(ii) 12.3	133 134	83 84	Worksheet 40 p. 94

SOLUTIONS FOR ALL MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number	13.1 3a–b	146	93	Worksheet 42 p. 98
12	Revision and remediation of investigation **pp. 49–50**				

Day	CAPS concepts and skills	LB ex.	LB pp.	TG pp.	DBE workbook
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	13.1 7e–f	146	93	Worksheet 42 p. 99
14	**Conversions p. 52** Revise Grade 6 conversions; Equivalence between common fractions and decimal fraction forms of the same number; Equivalence between common fractions, decimal fractions and percentage of the same number	13.3 2a, c, e	150	93	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	14.1 5	153	98	Worksheet 44 p. 102

SOLUTIONS FOR ALL MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places); Multiplication by 10 and 100	14.1 1a–b 2c–d	155	98	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** To at least 3 decimal places by whole numbers	14.4 1–2	160	99	Worksheet 46 p. 106
18	**Multiplication of decimal fractions** To at least 2 decimal places by decimal fractions to at least 1 decimal place	14.4 3	160	100	Worksheet 46 p. 107
19	**Division of decimal fractions** To at least 3 decimal places by whole numbers	14.5 1–2	161	100	Worksheet 47 p. 108
20	**Problem solving** Solve problems in context involving decimal fractions	14.5 3–4	163	100	Worksheet 47 p. 109

SOLUTIONS FOR ALL MATHEMATICS Week 5					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	Revision **pp. 50–52**	15.1 1 15.2 3	168 172	105	
22	**PATTERNS, FUNCTIONS AND ALGEBRA FUNCTIONS; RELATIONSHIPS p. 53** **Input and output values** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	15.2 5a–d	174	106	Worksheet 48 p. 110 Worksheet 50 p. 114
23	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	15.2 4	175	108	Worksheet 51 p. 116
24	Revision **pp. 53–55**	1, 3, 5	175	110	
25	**Formal assessment: Test**			277	

SOLUTIONS FOR ALL MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons	16.1 1a Shape p, m	178	113	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	16.1 2 Shape a, d	178	114	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles	16.3 1b, 2	180	116	Worksheet 53 p. 120
29	**Perimeter and the area of a triangle** Use formulae to calculate perimeter and area of: • triangles	16.3 1a	180	116	Worksheet 53 p. 120 Worksheet 54 p. 122
30	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solving equations using formulae to at least one decimal place	16.5 2–3	189	116	Worksheet 53 p. 121 Worksheet 54 p. 123

SOLUTIONS FOR ALL MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	**Conversions of SI units** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$	16.4 3b, 4a, 4e, 5h, 6f	188	117	Worksheet 55 p. 124
32	Interrelationships between squares and rectangles	8.4 1, 2 8.5 1, 2	86	118 119	
33	Revision: **Measurement pp. 55–56**	1a, 1d, 2c, 3c	191	119	
34	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area, volume and capacity of: • cubes	17.3 1a, 1b, 2a, 2b, 2c	200	123	Worksheet 56 pp. 126–129
35	Use appropriate formulae to calculate the surface area, volume and capacity of: • rectangular prisms	17.2 1a, 1b, 2a, 2b	198	122	Worksheet 58 p. 132

SOLUTIONS FOR ALL MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	Describe the interrelationship between surface area and the volume of: • cubes • rectangular prisms	17.6 1a, 1d, 2b, 2c, 3c	205	124	Worksheet 57b p. 130 Worksheet 59 p. 134
37	**Conversions p. 57** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$ • $mm^3 \longleftrightarrow cm^3$ • $cm^3 \longleftrightarrow m^3$ **Equivalence p. 57** Use equivalence between units when solving problems: • $mm^2 \longleftrightarrow cm^2$ • $1\ cm^3 \longleftrightarrow m\ell^3$ • $1\ m^3 \longleftrightarrow 1\ k\ell^2$	17.4 1a, 1d, 2b, 2e, 3h 17.5 2a, 3d	203 204	123	
38	Revision	2a, 3b, 4b, 5b	207	127	
39	**Volume of 3-D objects** Solve problems involving surface area, volume and capacity	7a, 8b, 8d	207	127	Worksheet 60 p. 136
40	Conversions and the volume of rectangular prisms	10	207	127	

SOLUTIONS FOR ALL MATHEMATICS Week 9: Catch-up, complete and revise work – follow our plan or design your own					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	**Revision: Common fractions and percentages**	Unit 11 1–9 Unit 12 1–11	211–213	129–130	Worksheet 61 p. 138
42	**Revision: Decimal fractions**	Unit 13 1–5 Unit 14 1–7	213–214	130–131	Worksheet 62 p. 140 Worksheet 63 p. 142
43	**Revision: Functions and relationships**	Unit 15 1–4	214–215	131	Worksheet 63 p. 143
44	**Revision: Perimeter and area**	Unit 16	215–216	132	Worksheet 63 p. 144
45	**Revision: Surface area and volume**	Unit 17	216–217	132–133	

SOLUTIONS FOR ALL MATHEMATICS
Week 10: Revision and mid-year examination – plan your week

2.9 *Spot on Mathematics*

SPOT ON MATHEMATICS Week 1					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
1	**NUMBERS, OPERATIONS AND RELATIONSHIPS** Common fractions (Grade 6 revision) **p. 49**	6.1a 1a–b 6.1b 1a–c	89 90	108	Term 1 Worksheet R7a p. xviii Worksheet 30 p. 74
2	**Calculation techniques p. 49** **Simplification** – use knowledge of multiples and factors to write fractions in the simplest form before and after calculations; **Conversion** – convert mixed numbers to common fractions in order to perform calculations with them; **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	6.2 6.1b 4	91 90	109 108	Worksheet 31 p. 76 Worksheet 32 p. 77
3	**Calculations using fractions** **Addition and subtraction** of common fractions limited to fractions with the same denominator or where one denominator is a multiple of another; Addition and subtraction of mixed numbers	6.3a 1a, 1c, 3c–f 6.3b 2a–c	92 93	111	Worksheet 33 p. 80
4	**Addition and subtraction of fractions with different denominators** (one denominator is not a multiple of another); **Equivalent fractions** – use knowledge of equivalent fractions to add and subtract common fractions	6.3b 3–5	93	111	Worksheet 33 p. 81
5	**Revision of common fractions**	6.3a 2a, 3b 6.3b 1h–i, 2b	92 93	111	

SPOT ON MATHEMATICS Week 2					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
6	**Multiplication of common fractions**, not limited to fractions where one denominator is a multiple of another; Multiplication of mixed numbers	6.4a 1a, 1c, 1e, 2c	94	113	Worksheet 33 pp. 82–83 Worksheet 36 p. 86
7	Fractions of whole numbers	6.4b 1a, 2e, 4b, 4d	95	114	
8	**Problem solving p. 50** Solve problems in contexts involving common fractions; Mixed numbers and finding fractions of whole numbers	6.5 1b, 1f, 2, 4 6b	96–97	115	Worksheet 38 pp. 90–91
9	**Formal assessment 1: Investigation** **Percentages of fractions p. 50** Revise the percentage of part of a whole (Grade 6)	Task 6.6a 1a, 1d, 2c, 2d, 3a, 3d 4	98	161 118–119	Worksheet 40 p. 94
10	**Percentages of fractions p. 50** Calculate percentage increase or decrease of whole numbers; Solve problems in contexts involving percentages	6.6b 1a–c, 2a–e	99	119–120	Worksheet 40 p. 94

SPOT ON MATHEMATICS Week 3					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
11	**Equivalent forms p. 50** Revise the equivalence form (Grade 6); Common fractions with 1-digit or 2-digit denominators (fractions where one denominator is a multiple of the other); Common and decimal fraction forms of the same number; Between common fractions, decimal fractions and percentage forms of the same number	6.7a 1, 2c–d, 3a 6.7b 3	100	120	Worksheet 42 p. 98
12	Revision and remediation: Percentages	Unit 2 1–11	156	170	
13	**Ordering and comparing decimal fractions p. 51** Count backwards and forwards to at least 2 decimal places (extend to at least 3 decimal places); Compare and order decimals to at least 2 decimal places (extend to at least 3 decimal places); Place value of digits to at least 2 decimal places (extend to at least 3 decimal places); Rounding off decimal fractions to at least 1 decimal place (extend to at least 2 decimal places)	7.1a 1–2 7.1b 3	107	126	Worksheet 42 p. 99
14	**Conversions p. 52** Revise Grade 6 conversions; Equivalence between common fractions and decimal fraction forms of the same number; Equivalence between common fractions, decimal fractions and percentage of the same number	7.1b 1–2	107	126	Worksheet 43 p. 100
15	**Calculation techniques** Use knowledge of **place value** to estimate the number of decimal places in the result before performing calculations; Use **rounding off** and a calculator to check results where appropriate	7.2 1–2, 5	108	129	Worksheet 44 p. 102

SPOT ON MATHEMATICS Week 4					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TGpp.**	**DBE workbook**
16	**Addition and subtraction of decimal fractions p. 52** Grade 6 revision: Addition and subtraction to at least 2 decimal places (extend to at least 3 decimal places); Multiplication by 10 and 100	7.4 1a–c, 2a–c 7.5 1a–c, 4a–b	112 113	131 132	Worksheet 45 p. 104
17	**Multiplication of decimal fractions** To at least 3 decimal places by whole numbers	7.6a 1a–c 7.6b 2a–d	116	135	Worksheet 46 p. 106
18	**Multiplication of decimal fractions** To at least 2 decimal places by decimal fractions to at least 1 decimal place	7.6a 2a–c 7.6b 1a–d	116	135	Worksheet 46 p. 107
19	**Division of decimal fractions** To at least 3 decimal places by whole numbers	7.7 1a–d, 3d–f	118	137	Worksheet 47 p. 108
20	**Problem solving** Solve problems in context involving decimal fractions	7.8 1a–b, 3a–d, 7a–c	119–120	138	Worksheet 47 p. 109

SPOT ON MATHEMATICS Week 5 # Supplement					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
21	Revision **pp. 50–52**	1, 2, 5	124	141	
22	**PATTERNS, FUNCTIONS AND ALGEBRA FUNCTIONS; RELATIONSHIPS p. 53** **Input and output values** Determine input values, output values or rules for patterns and relationships using: • flow diagrams • tables • formulae	8.1 1a–b, 2a, 3	127	145	Worksheet 48 p. 110 Worksheet 50 p. 114
23	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • verbally • in flow diagrams • by formulae • by number sentences	8.2 1a–d, 2a, 3	129	147	Worksheet 51 p. 116
24	Revision **pp. 53–55**	1–4	131–132	148	
25	**Formal assessment: Test** Use one from another LTSM, or use the exemplar in Section C of this planner				

SPOT ON MATHEMATICS Week 6					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
26	**MEASUREMENT pp. 55–56** **Area and perimeter of 2-D shapes** Calculate the perimeter of regular and irregular polygons	9.1a 1a–c	134	150	Worksheet 52 p. 118
27	Calculate the area of regular and irregular polygons	9.1a 2–4	134	150	Worksheet 52 p. 119
28	**Perimeter and the area of squares** Use formulae to calculate perimeter and area of: • squares • rectangles	9.2 1, 3, 4a–c	138	151	Worksheet 53 p. 120
29	**Perimeter and the area of a triangle** Use formulae to calculate perimeter and area of: • triangles	9.1b 1a–d, 2a–c	135	151–152	Worksheet 53 p. 120 Worksheet 54 p. 122
30	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solve equations using formulae to at least one decimal place	9.3 1a–c, 2, 3e–f, 4a, 5b	139–140	153	Worksheet 53 p. 121 Worksheet 54 p. 123

SPOT ON MATHEMATICS Week 7					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
31	**Calculations and solving problems** Solve problems involving perimeter and area of polygons; Solve equations using formulae to at least one decimal place	9.3 5–9	140	155–156	Worksheet 55 p. 124
32	Remediate test				
33	Revision: **Measurement pp. 55–56**	1–4	142	158	
34	**Surface area and volume p. 57** Use appropriate formulae to calculate the surface area of: • cubes • rectangular prisms	10.1 1a–c, 2 3a–d	145	160	Worksheet 56 pp. 126–129
35	**Surface area and volume p. 57** Use appropriate formulae to calculate the volume of: • cubes • rectangular prisms **Conversions p. 57** Use and convert between appropriate SI units, including: • $mm^2 \longleftrightarrow cm^2$ • $cm^2 \longleftrightarrow m^2$ • $mm^3 \longleftrightarrow cm^3$ • $cm^3 \longleftrightarrow m^3$	10.2 1–3	146–147	163	Worksheet 58 p. 132

SPOT ON MATHEMATICS Week 8					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
36	**Formal assessment: Investigation**			161–162	
37	**Surface area and volume p. 57** Use appropriate formulae to calculate the capacity of: • cubes • rectangular prisms **Equivalence p. 57** Use equivalence between units when solving problems: • $mm^2 \longleftrightarrow cm^2$ • $1\ cm^3 \longleftrightarrow m\ell$ • $1\ m^3 \longleftrightarrow 1\ k\ell$	10.3 1–4	149	164	Worksheet 57b p. 130 Worksheet 59 p. 134
38	**Revision: Surface area and volume**	Revision Act. 10 1–3	151	166	
39	**Revision: Surface area and volume**	Revision Act. 10 4–7	151–152	166	Worksheet 60 p. 136
40	**Revision: Common fractions**	Unit 1 A: 1–10 B: 1–9	154–155	168–169	

SPOT ON MATHEMATICS Week 9: Catch-up, complete and revise work – follow our plan or design your own					
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**
41	**Revision: Percentages**	Unit 2 1–11	156	170	Worksheet 61 p. 138
42	**Revision: Decimal fractions**	Unit 3 A: 1–11 B: 1–6	155 156	171 172	
43	**Revision: Functions and relationships** **Revision: Problem solving**	Unit 4 1–5 Unit 7 1–11	159 162	172 175	
44	**Revision: Perimeter, area, volume**	Unit 5 1–9	160	173	
45	**Revision: Surface area, volume and capacity**	Unit 6 1–7	161	174	

SPOT ON MATHEMATICS Week 10: Revision and mid-year examination – plan your week

3. Guidelines for preparing a Mathematics lesson

1. **Review the term focus:** Start by looking at the CAPS and *familiarising* yourself with the CAPS content focus for the term. It is important that you are clear about the content focus as this will frame everything you do in your Mathematics lessons during the term.

2. **Prepare resources:** The resources needed for each lesson are listed at the start of each CAPS topic or for each lesson in the planner. It is very important that you *check what is required for each lesson ahead of time* so that you have all your resources ready for use every day (e.g. counters, number boards, paper cut-outs, examples of shapes, etc.).
   - If you do not have all the necessary resources readily available, see how best you can improvise, e.g. ask learners to collect bottle tops or small stones to be used for counting or make your own flard cards/number boards using pieces of cardboard and a marker pen.
   - Collect necessary items from home (e.g. bottles, bottle tops, etc.) long in advance so that you have all the necessary resources for your lesson.
   - Use newspapers and magazines to cut out pictures that could be used in your teaching. If you have access to the internet, use Google to search for and print out pictures that you may need to use as illustrations in your lessons.
   - Also make sure you have chalk or marking pens so that you can use your chalk or whiteboard as needed. If you have digital resources, check that they are in working order.
   - Check the assessment programme so you can prepare any resources, such as test papers, needed for formal assessment so that learners can settle down and begin working promptly.

3. **Prepare the content:** Think carefully about what it is that you will teach your learners in this lesson. Think about the prior knowledge of the content that learners should have learned in earlier grades that will be built on in this lesson. You should refer to the CAPS content and skills clarification column for further guidance while you prepare. Consider any common misconceptions, and how you will address these. Do you have any learners with learning barriers in the class and how will you accommodate them?
   - ***Prepare a short introduction*** to the topic so that you can explain it in simple terms to your learners. The Learner's Book and Teacher's Guide will assist you. Also think about how learners will develop an understanding of the main concepts of the lesson topic. You need to think about how to explain new Mathematics content and skills to your learners.
   - ***Make sure you have prepared for the teaching of the concepts before you teach.*** Prepare yourself to assist learners with any questions they might have during the lesson. Look at the activities in the Learner's Book and in the DBE workbook, and think about how best to help your learners engage with them. Consider what will be done in class and what at home. Be sure to have some enrichment and remediation activities ready to use as needed. The Teacher's Guides offer suggestions for remediation and enrichment activities that you might want to use, and you will also useful resources in the *Remediation and Enrichment Activities* book.
   - Consider the needs of any learners with barriers to learning in your class, and how best you can support them.
   - You will also find helpful information and resources in the *Remediation and Enrichment Activities* book. The work in this book is related to the Grade 4 to 6 curriculum, but it has also been provided to Grade 7 teachers as many activities in this book will benefit learners who have not mastered certain concepts introduced in previous grades.

4. **Plan the steps in your lesson, and think carefully about how much time to allocate to different learner activities. Also think about how to organise the learners when they work.** Most lessons should include the steps below and we have suggested the time to be spent on each – but you might find that you need to work differently in some lessons, such as when a test is being written.

   Step 1: Mental Mathematics (5–10 minutes): This is the start-up activity for each lesson and should not take more than five to ten minutes. The purpose of this activity is to focus on numeracy and to drill basic numeric concepts so that they can be easily recalled in other higher level work. *Each day you need to prepare for the Mental Mathematics activities.* Learners should do Mental Mathematics orally most lessons, but they could do it in written form once a week so that there is some record of your daily Mental Mathematics activities.

   You will find many ideas for Mental Mathematics activities in the book: *Mental Maths Activities and Printable Resources* which is part of the Mathematics toolkit. Although developed for Grades 4 to 6, many activities in this book will be useful for Grade 7 learners who have not mastered all the skills introduced in previous grades.

   Learners should not use concrete material to work out the answers in Mental Mathematics. If learners need to, let them use their fingers as a concrete aid during Mental Mathematics, but make a note of which learners are doing this and then spend time with them during remediation to help them with the basic skills.

Mental Mathematics skills improve hugely through repeated activity and enable learners to perform higher level tasks with greater ease. It is important that learners develop awareness of and competence and fluency in a range of Mental Maths strategies so that they can choose and use effectively the most efficient method for a given calculation.

Step 2: Homework review/reflection (10 minutes): This is the second activity of the lesson. We recommend that you take about ten minutes to remediate and correct the previous lesson's homework. Read out answers to all of the homework questions. Make sure that you mark the homework activities – use peer and individual marking and check homework yourself as often as you can. If peer or individual marking has been done, you should regularly sample some learners' books to moderate this marking. Choose one or two activities that you realise were problematic to go over more thoroughly. During this part of the lesson you may reflect on the previous lesson's work. Allow learners the opportunity to write corrections as needed.

Step 3: Lesson content – concept development (15 minutes): This is the third activity of the lesson. We recommend that you should actively teach your class for 15 minutes – going through examples interactively with your learners. Go through worked examples and suggested explanations given in the Learner's Book or Teacher's Guide with your class as a whole. The CAPS content clarification column will also be a useful reference should you need further examples or ideas to enrich your explanations. You should elaborate on these explanations and provide additional examples if necessary.

Step 4: Classwork activity (20 minutes): This part of the lesson provides an opportunity for learners to consolidate new concepts by doing activities or exercises from the Learner's Book or DBE workbook. These activities allow them to practise their Mathematics and problem solving skills. It is important that you *prepare yourself for the classwork activity* – you need to assist learners as they do the classwork. You might also need to select particular questions from each activity for the classwork so that learners can manage the selection – the *exercises given in the various LTSMs vary greatly in length* and you need to make this selection in advance. Ensure that all types of activities or concepts are covered each lesson so that you can give quick and clear instructions to your learners about which exercises they should do.

Depending on your learners and the activities, you could go over one or two of the classwork activities orally with the whole class before allowing the learners to work independently. Allow the learners opportunities to do these activities alone, in pairs, and in groups, so that they experience working alone as well as with their peers. Remember not to give your learners more work than you are able to control and mark. Also encourage them, where appropriate, to write their answers and to show their working neatly and systematically in their workbooks. Plan the timing of the lesson so that you and the learners can go over the classwork together and they can do corrections in the lesson.

If you require your learners to work in groups, carefully assign learners to groups in such a way that there are learners with mixed abilities who can assist each other in each group.

This is also the part of the lesson where you can assist learners who need extra support and extend those who need enrichment. Throughout the lesson, try to identify learners that need additional support or extension by paying attention to how well they cope with the Mental Mathematics activities, how they manage the homework, how they respond when you develop the new content, and how they cope with the class activities. While the rest of the class are busy working through the classwork activities, you should spend some time with those that need extra support and help them to work through the remediation activities**.** If learners successfully complete the daily classwork activities ahead of the rest of the class, be prepared to give them the enrichment activities to do.

Step 5: Allocate homework (5 minutes): This is the fifth and final activity of the lesson. In this step you should tell the learners about the homework for the lesson and make sure they know what is expected of them and understand what it is that they have to do.

For homework, you can select a few questions from the daily classwork in their Learner's Books and ask the learners to complete them at home, or ask them to do part or all of a DBE worksheet. Homework enables the learners to consolidate the Mathematics that you have taught them in class. It also promotes learner writing and development of mathematical knowledge, and the development of regular study habits. Encourage your learners to show their parent(s) or their guardian(s) the work they have done.

5. **After each lesson, reflect on how it went:** You should note your thoughts about the day's lesson. You will use these notes as you plan and prepare for your teaching. The tracking template (Resource 12) has useful prompts to assist you here.

4. Assessment term plans

4.1 Term 1: Formal assessment tasks included in each set of LTSMs

LTSM	Assignment **Numbers, operations and relationships** **OR** Whole numbers: Exponents **Shape and space (Geometry)** Constructions	Test **Numbers, operations and relationships** Whole numbers: Properties; Calculations; Multiples and factors; Exponents and Problem solving **Shape and space (Geometry)** Geometry of straight lines; Construction of geometric figures Geometry of 2-D shapes
Clever: Keeping Mathematics Simple	**Week 7** LB p. 106; TG pp. 79–80	**Week 9** Use a test from the TG of another set of LTSMs, the exemplar in Section C of this planner, or set your own
Mathematics Today	**Week 6** LB p. 43; TG p. 11	**Week 9** TG pp. 24–25 See also the exemplar test in Section C of this planner
Oxford Headstart Mathematics	**Week 5** LB p. 65; TG p. 75	**Week 9** TG p. 101 See also the exemplar test in Section C of this planner
Oxford Successful Mathematics	**Week 6** Option 2: LB p. 377; TG p. 246	**Week 8** TG pp. 247–248; Memo p. 249 See also the exemplar test in Section C of this planner
Platinum Mathematics	**Week 5** LB pp. 28–29; TG p. 17	**Week 9** Use a test from the TG of another set of LTSMs, the exemplar in Section C of this planner, or set your own
Premier Mathematics	**Week 8** LB pp. 38–39; TG p. 19	**Week 9** TG pp. 22–26; Memo pp. 27–29 See also the exemplar test in Section C of this planner
Sasol Inzalo Mathematics	**Week 6** LB pp. 51–53 TG pp. 55–58	**Week 10** Use a test from the TG of another set of LTSMs, the exemplar in Section C of this planner, or set your own
Solutions for All Mathematics	**Week 5** TG pp. 303–305; Memo pp. 306–307	**Week 9** TG p. 275; Memo p. 276 See also the exemplar test in Section C of this planner
Spot On Mathematics	**Week 8** TG pp. 105–106; Memo pp.107–108	**Week 9** TG pp. 101–102; Memo pp. 103–104 See also the exemplar test in Section C of this planner

4.2 Term 2: Formal assessment tasks included in each set of LTSMs

LTSM	Investigation	Test * In the LB, so only suitable for revision/practice, not for formal assessment	Examination **Numbers, Operations and Relationships** • Common fraction; decimal fractions and problem solving **Patterns, Functions and Algebra** • Functions and relationships **Measurement** • Area and perimeter • Surface area and volume of 3-D objects
Clever: Keeping Mathematics Simple	**Week 8** LB p. 197; TG p. 172 Measurement	**Week 5** * LB p. 198 Test; TG p. 175 Memo Use a test from the TG of another set of LTSMs, or set your own	**Week 10** TG p. 177 Exam; Memo p. 182 See also the exemplar examination in Section C of this planner
Mathematics Today	**Week 8** LB p. 154; TG p. 50 Make 3-D shapes and nets and calculate surface areas of 3-D shapes: Note: Learners may find different answers and cannot be expected to know that their solution **is** the maximum in Gr 7	**Week 5** TG p. 41 Test; TG p. 43 Memo	**Week 10** TG pp. 52–53 Mid-year Exam; TG p. 54 Mid-year Exam Memo See also the exemplar examination in Section C of this planner
Oxford Headstart Mathematics	**Week 6** LB p. 187; TG p. 156 Perimeter **OR** **Week 8** LB p. 207; TG p. 169 Build a prism	**Week 5** TG no test provided Use a test from the TG of another set of LTSMs, or set your own	**Week 10** TG pp. 172–173 Exam Paper 1 pp. 174–175 Memo Paper 1 pp. 173–174 Exam Paper 2 pp. 175–176 Memo Paper 2 See also the exemplar examination in Section C of this planner
Oxford Successful Mathematics	**Week 5** LB p. 379; TG p. 250 Functions and relationships **OR** **Week 8** LB p. 381; TG p. 251 Relationship between volume and surface area	**Week 5** TG p. 252 Test; TG p. 253 Memo	**Week 10** TG p. 257 Exam; TG p. 261 Memo See also the exemplar examination in Section C of this planner
Platinum Mathematics	**Week 2** LB p. 110; TG p. 56 Percentages	**Week 5** * LB p. 102; LB p. 52 Memo Use a test from the TG of another set of LTSMs, or set your own	**Week 10** TG p. 151 Exam; TG p. 156 Memo See also the exemplar examination in Section C of this planner
Premier Mathematics	**Week 6** LB pp. 68–69; TG p. 42 Rubric Perimeter and area	**Week 5** TG p. 48 Test; TG p. 52 Memo	**Week 10** TG p. 55 Exam; TG p. 60 Memo See also the exemplar examination in Section C of this planner
Sasol Inzalo Mathematics	**Week 3** Use an investigation from another LTSM, or use one of your own	**Week 5** Use a test from the TG of another set of LTSMs, or set your own	**Week 10** Use an examination from the TG of another set of LTSMs, the exemplar in Section C of this planner, or set your own

LTSM	Investigation	Test * In the LB, so only suitable for revision/practice, not for formal assessment	Examination **Numbers, Operations and Relationships** • Common fraction; decimal fractions and problem solving **Patterns, Functions and Algebra** • Functions and relationships **Measurement** • Area and perimeter • Surface area and volume of 3-D objects
Solutions for All Mathematics	**Week 2** TG p. 281 Investigate infinite triangles TG pp. 282–285 Investigation, discussion and solutions	**Week 5** TG p. 277 Test; TG p. 279 Memo	**Week 10** TG p. 286 Exam; TG p. 289 Memo See also the exemplar examination in Section C of this planner
Spot On Mathematics	**Week 8** TG p. 161 Questions; TG p. 162 Memo Volume and surface area	**Week 5** No test provided Use a test from the TG of another set of LTSMs, or set your own	**Week 10** TG pp. 185–191 Exam; TG p. 192 Memo See also the exemplar examination in Section C of this planner

5. The exemplar Term 1 test

Surname:		
Name:		
Date of birth:		
School:	**Date:** _____	_____ **75**
Province:		
EMIS no.:		

INSTRUCTIONS TO LEARNERS:
1. The use of calculators is not allowed.
2. Answer all the questions in the spaces provided.
3. Show ALL calculations where necessary.

NUMBER OPERATIONS AND RELATIONSHIPS **(8 marks)**

1. Complete
   a) The hundreds digit in 395 491 is _____ (1)
   b) The value of the digit 5 in 4 356 869 is _____ (1)

2. Arrange the given numbers in descending order of size:
   212 143 123 243 413 123 342 123
   _____ (2)

3. Write the following number in words: 234 709
   _____ (1)

4. Thabo rounded the number of marbles to the nearest 5. His answer was 340.
   Write down 2 possible numbers for the actual number of marbles.
   _____ (2)

5. Calculate the value of p if $2p + 12 = 58$
   A. 22 B. 12 C. 18 D. 23 (1)

MULTIPLES AND FACTORS OF WHOLE NUMBERS **(9 marks)**

6. Write down the multiples of 7 between 44 and 54.

_____ (1)

7. List all the factors of 225.

_____ (2)

8. 1 , 2 , 4 , 16 and 32 are five of the six factors of 32. Write down the missing factor.

_____ (1)

9. List two whole numbers that I can multiply to get to 125?

_____ (2)

10. Find the Lowest Common Multiple of 12 and 36.

_____ (1)

11. Write down the factors of 57 which lie between 1 and 57

_____ (2)

PRIME NUMBERS **(5 marks)**

12. List all the prime numbers between 27 and 35.

_____ (2)

13. Write down all the even numbers less than 100 that are prime numbers.

_____ (1)

14. From these numbers: 5; 33; 27; 72; 36; 61; 81; 45; choose:
    a) A prime number

    _____ (1)

    b) A number which is the product of two prime numbers

    _____ (1)

ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION OF WHOLE NUMBER **(14 marks)**

15. A supermarket sold 1 625 407 orange lollipops, 68 945 green lollipops, 2 165 001 yellow lollipops and 770 239 red lollipops. **(Show ALL calculations)**

a) How many lollipops were sold altogether?

(3)

b) How many more yellow lollipops than red lollipops were sold?

(2)

16. Calculate using columns.

a) R3 423 567 + R766 678 + R2 378 487

(3)

b) 3 032 512 – 1 753 769

(2)

17. Calculate the product of 7 876 and 393.

(4)

RATIO AND RATE **(5 marks)**

18. **(Show ALL calculations)**

18.1 A normal, healthy adult heart beats about 78 beats per minute.
How many times will a heart beat in half an hour?

(1)

18.2 Lionel works for 40 minutes at his homework. Cindy works for 2 hours at her homework.

Lionel says: The ratio of our times is 40 : 2. that is 20 : 1.

Cindy says: No! That ratio says that you worked much, much longer at your homework than I did. That is not true. I worked much longer than you did!

a) Do you agree with Cindy? Or would you help Lionel understand what is wrong with what he said?

_____

_____ (1)

b) What is the ratio of the times that they spent on their homework?

_____

_____ (2)

19. Complete the number sentence to make the following sentence true:
125 x ____ = 123 250 (1)

EXPONENTS **(4 marks)**

20. First estimate and then calculate and simplify the answers: (Show ALL your calculations)

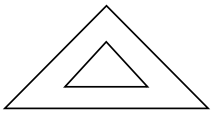
a) $5^2 + 1^2 + 3^3$ (2)	b) $4^3 \div \sqrt{64}$ (2)

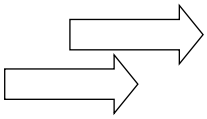
SHAPE AND SPACE **(30 marks)**

21. A parallelogram with at least one angle equal to 90° is called a … . (1)

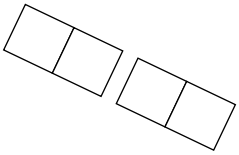
A. Kite B. Rhombus C. Trapezium D. Rectangle

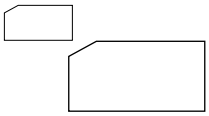
22. **Study and compare the 4 pairs of diagrams below and state whether each pair is SIMILAR or CONGRUENT.**

a. 

b. 

_____ _____

c. 

d. 

_____ _____ (4)

23. Draw an EQUILATERAL and a RIGHT ANGLED TRIANGLE and list two of the properties of each:

a) Equilateral triangle
_____

(3)

b) Right angled triangle

_____

(3)

24. List all the similarities between a RECTANGLE and a SQUARE

_____

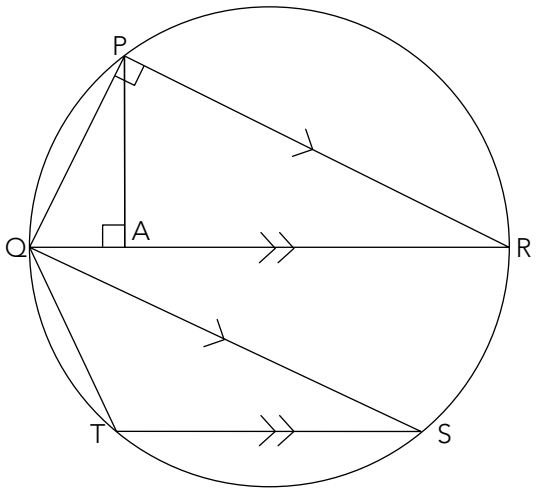
_____

_____

_____

(4)

25. **Complete**



Refer to the adjacent diagram and name

a) 2 pairs of parallel line segments

_____ (2)

b) 3 right angles

_____ (3)

c) 2 pairs of perpendicular line segments

_____ (2)

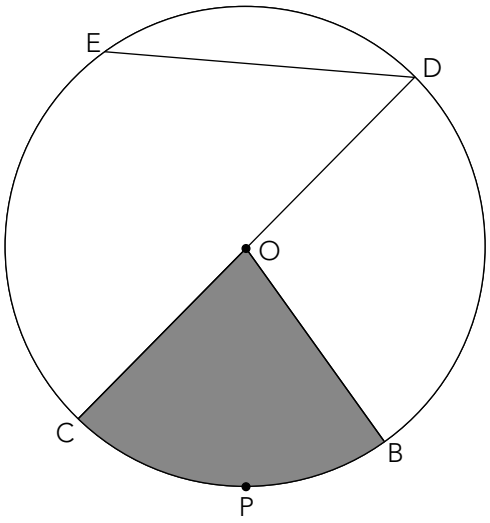
d) 3 acute angles

_____ (3)

e) 1 obtuse angle

_____ (1)

26. Label the Circle by completing the statements.



In the adjacent diagram:
O is the CENTRE of the circle

a) What is line segment OB of the circle?

_____ (1)

b) What is line segment CD of the circle?

_____ (1)

c) What is line segment DE of the circle?

_____ (1)

d) What is the distance around the circle called?

_____ (1)

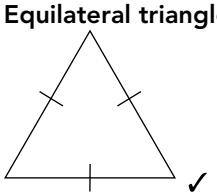
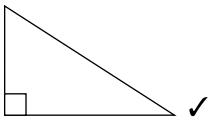
TOTAL: 75 MARKS

6. Memorandum and analysis of cognitive levels in the Term 1 test

Question	Marks	Cognitive levels
NUMBER, OPERATIONS AND RELATIONSHIPS (8 marks)		
1. Complete		
a) 4 ✓	(1)	K
b) 50 000 ✓	(1)	K
2. Arrange in descending order	**(2)**	RP
413 123 ✓$\frac{1}{2}$ 342 123 ✓$\frac{1}{2}$ 212 143 ✓$\frac{1}{2}$ 123 243 ✓$\frac{1}{2}$		
3. Write 234 709 in words	**(1)**	K
Two hundred and thirty four thousand, seven hundred and nine ✓		
4. Possible number of marbles	Any two	
338 339 340 341 342 ✓✓	**(2)**	PS
5. Calculate the value	**(1)**	RP
D. 23 ✓		
MULTIPLES AND FACTORS OF WHOLE NUMBERS (9 marks)		
6. Multiples of 7 between 44 and 54	**(1)**	K
49 ✓		
7. Factors of 225	**(2)**	RP
1; 3; 5; 9; 15; 25; 45; 75; 225 ✓✓		
8. Missing factor of 32	**(1)**	RP
8 ✓		
9. Two whole numbers	**(2)**	K
1 and 125 OR 5 and 25 ✓✓		
10. LCM of 12 and 36	**(1)**	RP
36 ✓		
11. Factors of 57 between 1 and 57	**(2)**	RP
3 ✓ and 19 ✓		
PRIME NUMBERS (5 marks)		
12. Between 27 and 35	**(2)**	K
29 ✓ and 31 ✓		
13. All prime even numbers	**(1)**	K
2 ✓		
14. Choose from 5; 33; 27; 72; 36; 61; 81; 45		
a) Prime number – 5 OR 61 ✓	(1)	RP
b) Product of prime numbers – 33 (3 x 11) ✓	(1)	PS

Question	Marks	Cognitive levels
ADDITION, SUBTRACTION, MULTIPLICATION, AND DIVISION **(14 marks)**		
15. How many lollipops sold		
a) Lollipops sold = 4 629 592 1 625 407 68 945 2 165 001 + 770 239 ✓ **4 629 592 ✓✓**	(3)	RP
b) Yellow and red lollipops 2 165 001 – 770 239 **1 394 762 ✓✓**	(2)	CP
16. Calculate		
a) R 3 423 567 R 766 678 + R 2 378 487 ✓ R **6 568 732 ✓✓**	(3)	RP
b) 3 032 512 – 1 753 769 **1 278 743 ✓✓**	(2)	RP
17. Product of 7 876 and 393	**(4)**	CP
7 876 ✓ x 393 23 628 708 840 ✓ + 2 362 800 ✓ **3 095 268** ✓		

Question	Marks	Cognitive levels
RATIO AND RATE **(5 marks)**		
18.1 Heartbeat of an adult – 78 beats/minute		
Number of heartbeats in half hour = 78 x 30 ✓$\frac{1}{2}$ = 780 x 3 = **2 340** ✓$\frac{1}{2}$	**(1)**	PS
18.2 Ratio of times		
a) Cindy is correct. We cannot compare minutes with hours. ✓	(1)	PS
b) Cindy worked 120 minutes. ✓ 40:120 = 1:3 ✓	(2)	PS
19. Complete number sentence = 123 250 ÷ 125 = 986 ✓ OR $\begin{array}{r} 986 \\ 125\overline{)\,123\;250} \\ \underline{112\;5} \\ 10\;75 \\ \underline{10\;00} \\ 750 \\ \underline{750} \end{array}$	**(1)**	PS
EXPONENTS **(4 marks)**		
20. Estimate and calculate		
a) $5^2 + 1^2 + 3^3$ = 25 + 1 + 27 ✓ = 53 ✓	(2)	CP
b) $4^3 \div \sqrt{64}$		
= 64 ÷ 8 ✓	(1)	CP
= 8 ✓	(1)	K

Question	Marks	Cognitive levels
SHAPE AND SPACE (30 marks)		
21. Parallelogram with at least one angle equal to 90°	**(1)**	CP
D. Rectangle ✓		
22. Similar or congruent		RP
a) similar ✓	(1)	
b) congruent ✓	(1)	
c) congruent ✓	(1)	
d) similar ✓	(1)	
23 a) Equilateral triangle		
 ✓	(1) drawing	K
All sides are equal ✓	(2)	RP
All angles equal 60° ✓	properties	
b) Right angled triangle		
 ✓	(1) drawing	K
Has one angle that equals 90° ✓	(2)	RP
The other two angles are less than 90° each ✓	properties	
24. Similarities of a RECTANGLE and a SQUARE	**(4)**	CP
They are both quadrilaterals ✓		
They each have 4 right angles ✓		
Opposite sides are parallel ✓		
Opposite sides are equal ✓		
25. Complete		
a) PR ‖ QS ✓ QR ‖ TS ✓	(2)	RP
b) $P\hat{A}Q$ $Q\hat{P}R$ $P\hat{A}R$ ✓✓✓	(3)	RP
c) PA ⊥ OR ✓ and PQ ⊥ PR ✓	(2)	CP
d) $P\hat{R}A$ $Q\hat{S}T$ $A\hat{P}Q$ $R\hat{Q}S$		
$P\hat{Q}A$ $S\hat{Q}T$ $A\hat{P}R$ (Any three) ✓✓✓	(3)	RP
e) $Q\hat{T}S$ ✓	(1)	K
26. In the diagram of the Circle the:		
a) Line segment OB is a **radius** ✓ of the circle.	(1)	K
b) Line segment CD is a **diameter** ✓of the circle.	(1)	K
c) Line segment DE is a **chord** ✓ of the circle.	(1)	K
d) The distance around the circle is called the **circumference.** ✓	(1)	K
	TOTAL: 75 MARKS	

7. Weighting of cognitive levels in the Term 1 test

QUESTION	L1 (K) Knowledge	L2 (RP) Routine Procedures	L3 (CP) Complex Procedures	L4 (PS) Problem Solving	Total
NUMBER, OPERATIONS AND RELATIONSHIPS (8 Marks)					
1a	1				**1**
1b	1				**1**
2		2			**2**
3	1				**1**
4				2	**2**
5		1			**1**
MULTIPLES AND FACTORS OF WHOLE NUMBERS (9 Marks)					
6	1				**1**
7		2			**2**
8		1			**1**
9	2				**2**
10		1			**1**
11		2			**2**
PRIME NUMBERS (5 Marks)					
12	2				**2**
13	1				**1**
14a		1			**1**
14b				1	**1**
ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION (14 Marks)					
15a		3			**3**
15b			2		**2**
16a		3			**3**
16b		2			**2**
17			4		**4**
RATIO AND RATE (5 Marks)					
18.1				1	**1**
18.2a				1	**1**
18.2b				2	**2**
19				1	**1**
EXPONENTS (4 Marks)					
20a			2		**2**
20b	1		1		**2**
SHAPE AND SPACE (30 Marks)					
21			1		**1**
22a		1			**1**
22b		1			**1**
22c		1			**1**
22d		1			**1**
23a	1	2			**3**
23b	1	2			**3**
24			4		**4**
25a		2			**2**
25b		3			**3**
25c			2		**2**
25d		3			**3**
25e	1				**1**
26a	1				**1**
26b	1				**1**
26c	1				**1**
26d	1				**1**
TOTAL	**17**	**34**	**16**	**8**	**75**
%	**23**	**45**	**21**	**11**	**100**
% Specified by CAPS (p. 157)	**25%**	**45%**	**20%**	**10%**	

8. The exemplar June/mid-year Term 2 examination

Surname:		
Name:	**Date:** _____	_____ **80 marks**
Date of birth:		

INSTRUCTIONS TO LEARNERS:

1. Answer all the questions in the spaces provided.
2. No calculators may be used.
3. Show ALL calculations where necessary.
4. Time: 90 minutes.
5. Total: 80 marks.

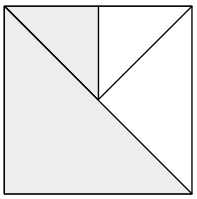
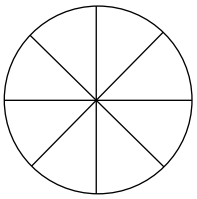
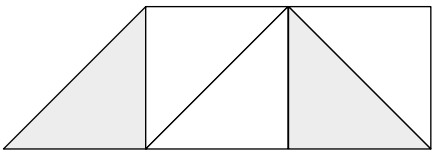
SECTION A

Answer ALL the questions in the spaces provided.

FRACTIONS:

QUESTION 1 **[6 marks]**

Complete the table below without using a calculator. The first row has been done for you.

	Simplified fraction	Equivalent fraction	Percentage %	Shade the fraction of the shape (if not shaded)
e.g.	$\frac{5}{8}$	$\frac{25}{40}$	62, 5%	
1.1	$\frac{3}{4}$	$\frac{75}{\ldots}$	…	
1.2	$\frac{\ldots}{\ldots}$	$\frac{\ldots}{50}$	…	

QUESTION 2 **[24 marks]**

2.1 Write THREE equivalent fractions for the following fraction:

$\frac{25}{50}$ = _____ = _____ = _____ (3)

2.2 Arrange the following numbers in descending order:

0,9; 0,009; 0,09; 0,0009; 9,09

_____ (3)

2.3 Work out the answers to the following. Simplify your answers where possible.

a) $\frac{6}{10} + \frac{2}{5} - \frac{3}{4}$

_____

_____

_____

_____ (3)

b) $1\frac{2}{3} - \frac{5}{6}$

_____

_____

_____

_____ (3)

2.4 Round 1 637, 984 off to:

a) two decimal places _____ (1)

b) the nearest 100 _____ (1)

c) the nearest tenth _____ (1)

2.5 In a class of 30 learners, 7 were absent. What fraction of the class was present?

_____

_____

_____

_____ (2)

2.6 Write down the next decimal number.

0,79; 0,76; 0,73; 0,7; _____ (1)

2.7 Work out answers to the following:

a) 0,8 + 1,9 – 0,6

_____

_____

_____

_____ (2)

b) 0,23 x 6

_____

_____

_____

_____ (2)

c) 0,684 ÷ 2

_____

_____

_____

_____

_____ (2)

FUNCTIONS AND RELATIONSHIPS:

QUESTION 3 [6 marks]

3.1 If the pattern below is continued, find the 7th fraction in this sequence:

$\frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} =$ _____

Show all working out.

_____

_____

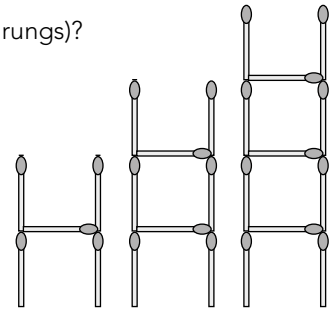
_____

_____

_____

_____ (3)

3.2 Sipho builds ladders with matches as shown below.
How many matches will he need to build a ladder with 6 steps (or rungs)?
Show all working out.



_____

_____

_____

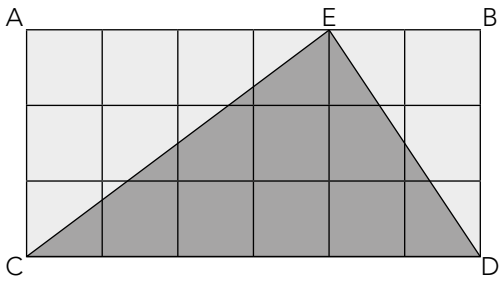
_____

_____

_____ (3)

MEASUREMENT:

QUESTION 4 **[3 marks]**



Look at the triangle and rectangle in the diagram.

Determine the area of each of them by carefully counting the squares.

4.1 The area of rectangle ABCD

= _____ (1)

4.2 The area of the triangle ECD

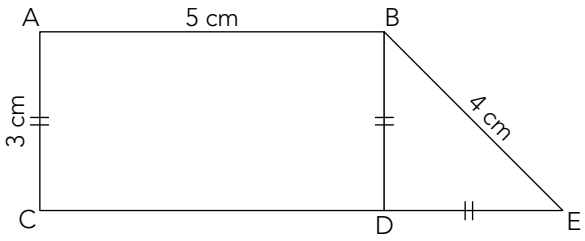
= _____ (1)

4.3 How many times bigger is the area of the rectangle than the area of the triangle?

_____ (1)

QUESTION 5 **[11 marks]**

5.1 ABEC is a 2-D shape made up of rectangle ABDC and right-angled triangle BDE.



a) Find the perimeter of the shape ABEC

_____

_____

_____

_____ (3)

b) Find the area of the shape ABEC

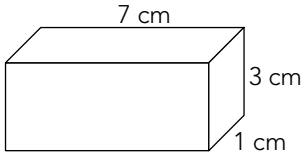
_____

_____

_____

_____ (5)

5.2 Calculate the volume of the following prism:



_____

_____

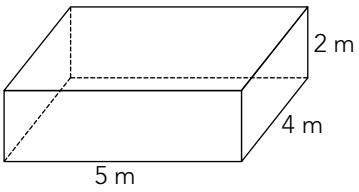
_____

_____ (3)

QUESTION 6 **[8 marks]**

A painter has to paint the sides, top and bottom of this solid object.

The base is a rectangle with **length 5 m** and **breadth 4 m**. The **height** of the sides is **2 m**.



6.1 Determine the total surface area he needs to paint.

_____

_____

_____ (6)

6.2 How many litres of paint does he need, if 1 ℓ covers 6 m^2.

_____

_____

_____ (2)

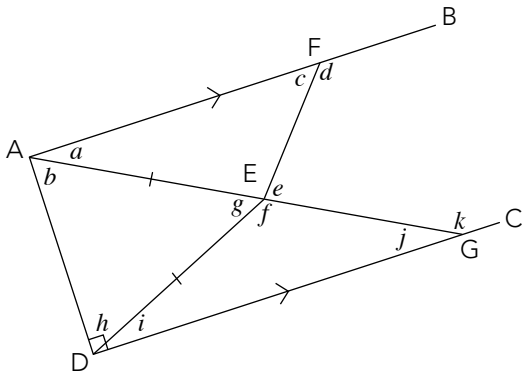
GEOMETRY:

QUESTION 7 **[2 marks]**

7. Complete the following: (2)

7.1 AE = _____

7.2 AB|| _____



SECTION B

MULTIPLE CHOICE:

QUESTION 8 **[20 marks]**

There are **TEN** multiple-choice questions in Section B. For each question **FOUR** possible answers are given and only **ONE** answer is correct. For each multiple choice question **circle the letter of the correct answer** to indicate your choice.

Example: 7 x 15 = _____

Ⓐ 105 B. 110 C. 115 D. 120

8.1 What type of number is $4\frac{3}{5}$?

a) Common fraction b) Decimal fraction c) Percentage d) Mixed number (2)

8.2 Calculate: 4 + 6 x 3 ÷ 6

a) 24 b) 16 c) 7 d) 36 (2)

8.3 What is the missing decimal number in the following number sequence?

13,25; 13,3; _____; 13,4; 13,45

a) 13,30 b) 13,35 c) 13,5 d) 13, 40 (2)

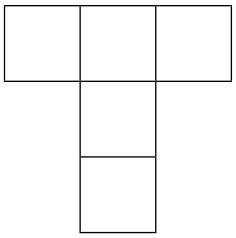
8.4 0, 65 is written as a percentage. Which one of the following is the correct percentage?

a) 6,5% b) 65% c) 0,65% d) 650% (2)

8.5 Which number lies halfway between 2 and $3\frac{1}{2}$ on the number line?

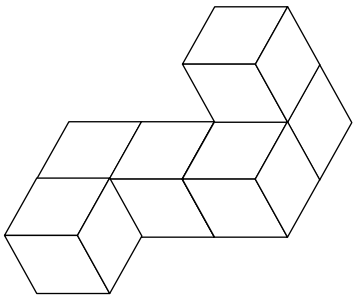
a) $2\frac{3}{4}$ b) 3 c) $2\frac{1}{2}$ d) $5\frac{1}{2}$ (2)

8.6 If each square that forms the letter T measures 3 cm along each side, the perimeter of the letter is:



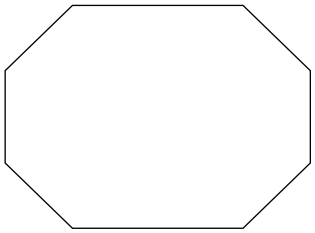
a) 18 cm b) 36 cm c) 27 cm d) 33 cm (2)

8.7 Six wooden cubes were glued together to make the 3-D object. If you want to paint the 3-D object, how many faces (sides of the cubes) must be painted?



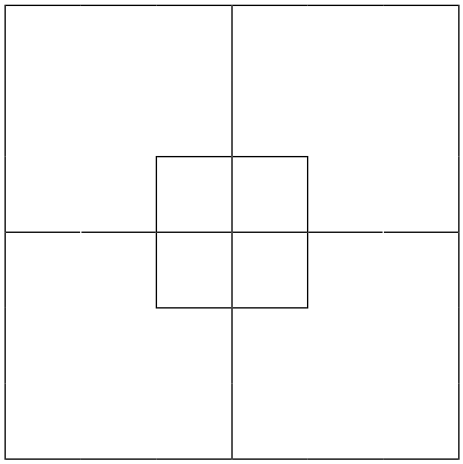
a) 30 b) 27 c) 26 d) 25 (2)

8.8 How many lines of symmetry does the following 2-D figure have?



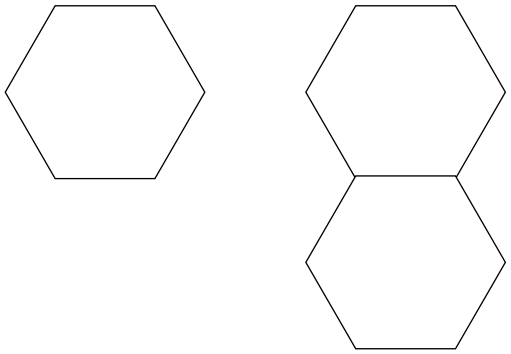
a) 4 b) 2 c) 6 d) 8 (2)

8.9 How many squares (of all sizes) are there in this diagram?



a) 10 b) 17 c) 20 d) 21 (2)

8.10 Study the following pattern.
How many sides will the 3rd set of polygons have?



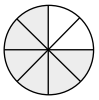
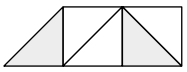
a) 12 b) 14 c) 16 d) 18 (2)

TOTAL: 80 MARKS

9. Memorandum and analysis of cognitive levels in the Term 2 examination

Note: The last column in the memorandum shows the cognitive level for each question in the test. 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.
More information about these levels can be found in the CAPS (p. 296).	

Questions	Marks	Cognitive level
SECTION A		
FRACTIONS:		
QUESTION 1 **[6 marks]**		
1.1 Simplified fraction: $\frac{3}{4}$; Equivalent fraction: $\frac{75}{100}$ ✓; Percentage %: 75% ✓; Shade the fraction of the shape (if not shaded):  ✓	3	**6K**
1.2 Simplified fraction: $\frac{2}{5}$ ✓; Equivalent fraction: $\frac{20}{50}$ ✓; Percentage %: 40% ✓; Shade the fraction of the shape (if not shaded): 	3	
QUESTION 2 **[24 marks]**		
2.1 Three possible answers are $\frac{1}{2}$ ✓ $\frac{5}{10}$ ✓ $\frac{8}{16}$ ✓ Accept **all** correct answers.	3	**3K**
2.2 Descending order: 9,09; 0,9; 0,09; 0,009; 0,0009 ✓✓✓	3	**3RP**
2.3 a) $\frac{6}{10} + \frac{2}{5} - \frac{3}{4}$ $= \frac{12}{20} + \frac{8}{20} - \frac{15}{20}$ ✓ $= \frac{20}{20} - \frac{15}{20}$ ✓ $= \frac{5}{20}$ $= \frac{1}{4}$ ✓	3	**3RP**
2.3 b) $1\frac{2}{3} - \frac{5}{6}$ $= \frac{5}{3} - \frac{5}{6}$ ✓ $= \frac{10}{6} - \frac{5}{6}$ ✓ $= \frac{5}{6}$ ✓	3	**3RP**
2.4 Round 1 637, 984 off to:		
a) two decimal places **1 637, 98** ✓	1	**1K**
b) the nearest 100 **1 600** ✓	1	**1K**
c) the nearest tenth **1 638, 0** ✓	1	**1K**
2.5 Number of learners present = 30 – 7 = 23 ✓ Fraction of learners present = $\frac{23}{30}$ ✓	2	**2K**
2.6 0,79; 0,76; 0,73; 0,7; **0,67** ✓	1	**1RP**
2.7 a) 0,8 + 1,9 – 0,6 = 2,7 – 0,6 ✓ = 2,1 ✓ OR 0,8 + 1,9 – 0,6 = 0,8 + 1,3 ✓ = 2,1 ✓	2	**2RP**
b) 0,23 x 6 = (0,2 x 6) + (0,03 x 6) = 1,2 + 0,18 ✓ = 1,38 ✓ OR $0,^{1}23$ x 6 1,38 ✓✓	2	**2RP**
c) 2 | 0,684 0,342 ✓✓	2	**2RP**

Questions	Marks	Cognitive level
FUNCTIONS AND RELATIONSHIPS:		
QUESTION 3 **[6 marks]**		
3.1	3	**3PS**

Term number	Term
1	$\frac{1}{2}$
2	$\frac{1}{2+4} = \frac{1}{6}$
3	$\frac{1}{6+6} = \frac{1}{12}$
4	$\frac{1}{12+8} = \frac{1}{20}$
5	$\frac{1}{20+10} = \frac{1}{30}$
6	$\frac{1}{30+12} = \frac{1}{42}$
7	$\frac{1}{42+14} = \frac{1}{56}$

✓✓ Understanding that the denominator increases by 2 each time.

✓ Answer of $\frac{1}{56}$

NOTE: It is not necessary for the learners to use a table to work the answer out.

3.2 3 **3PS**

Picture number	Number of steps (rungs)	Number of matches
1	1	2 x 2 + 1 = 5
2	2	2 x 3 + 2 = 8
3	3	2 x 4 + 3 = 11
4	4	2 x 5 + 4 = 14
5	5	2 x 6 + 5 = 17
6	6	2 x 7 + 6 = 20

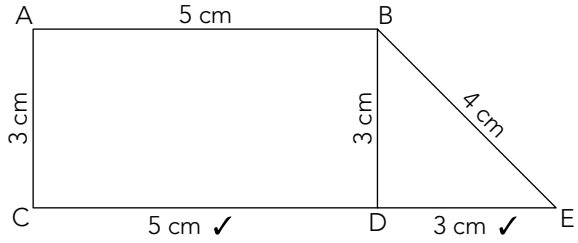
✓✓ For working out the number of steps (rungs) correctly.

✓ Answer of 20 rungs.

NOTE: It is not necessary for the learners to use a table to work the answer out.

MEASUREMENT:		
QUESTION 4 **[3 marks]**		
4.1 The area of the rectangle ABCD = 18 squares ✓	1	**1RP**
4.2 The area of the triangle CED= 9 squares ✓	1	**1RP**
4.3 The area of the rectangle is <u>twice (2 times)</u> the area of the triangle ✓	1	**1RP**
QUESTION 5 **[11 marks]**		

5.1



a) Perimeter of shape ABCD — 3 — **3CP**

= 3 cm + 5 cm + 4 cm + 3 cm + 5 cm

= 20 cm ✓

b) A = area of rectangle + area of triangle — 5 — **5RP**

= (l x b) + ($\frac{1}{2}$ x b x h) ✓

= 5 cm x 3 cm ✓ + ($\frac{1}{2}$ x 3 cm x 3 cm) ✓

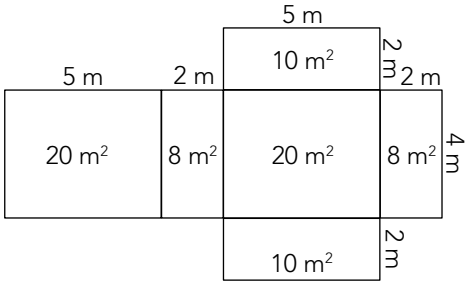
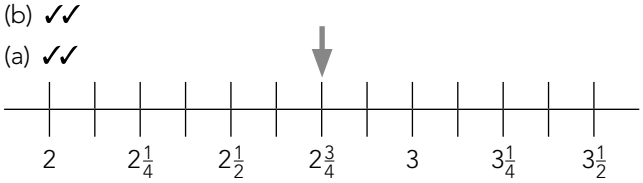
= 15 cm² + 4,5 cm² ✓

= 19,5 cm² ✓

5.2 Volume = l x b x h ✓ — 3 — **3RP**

V = 7 x 3 x 1 ✓

= 21 cm³ ✓

Questions		Marks	Cognitive level
QUESTION 6	**[8 marks]**		
6.1	The easiest way to work out the total area is by *unfolding* the solid 3-D figure. The flat 2-D surface is called the net of the solid 3-D figure. If the rectangular-based right prism is unfolded, it looks like this:  Total surface area = sum of the areas of the six rectangles: $A = [(5 \times 2) + (5 \times 2) + (5 \times 4) + (5 \times 4) + (4 \times 2) + (4 \times 2)]\ m^2$ ✓✓ $= 10\ m^2 + 10\ m^2 + 20\ m^2 + 20\ m^2 + 8\ m^2 + 8\ m^2$ ✓✓ $= 76\ m^2$ ✓	5	**5CP**
6.2	Number of litres of paint needed: $76\ m^2 \div 6\ m^2/\ell$ ✓ $= 12{,}\dot{6}\ \ell$ ✓ $= 13\ \ell$ ✓	3	**3CP**
GEOMETRY:			
QUESTION 7	**[2 marks]**		
7.1	AE = DE ✓	1	**1K**
7.2	AB||DC ✓	1	**1K**
SECTION B			
MULTIPLE CHOICE:			
QUESTION 8	**[20 marks]**		
8.1	(d) ✓✓	2	**2K**
8.2	(c) ✓✓ $4 + 6 \times 3 \div 6 = 4 + (18 \div 6) = 4 + 3 = 7$	2	**2K**
8.3	(b) 13,35 ✓✓	2	**2RP**
8.4	(b) ✓✓	2	**2RP**
8.5	(a) ✓✓  OR $(2 + 3\frac{1}{2}) \div 2 = 5\frac{1}{2} \div 2 = \frac{11}{2} \div 2 = \frac{11}{2} \times \frac{1}{2} = \frac{11}{4} = 2\frac{3}{4}$	2	**2CP**
8.6	(b) ✓✓ Perimeter = 9 cm + 3 cm + 3 cm + 6 cm + 3 cm + 6 cm + 3 cm + 3 cm = 36 cm	2	**2CP**
8.7	(c) ✓✓ Top view: 5 faces Bottom view: 5 faces Back view: 4 faces Front view: 4 faces Left view: 4 faces Right view: 4 faces Total number of faces = 4 + 4 + 5 + 5 + 4 + 4 = 26	2	**2CP**

<table>
<tr><th colspan="2">Questions</th><th>Marks</th><th>Cognitive level</th></tr>
<tr><td>8.8</td><td>(b) ✓✓</td><td>2</td><td>2RP</td></tr>
<tr><td>8.9</td><td>(a) ✓✓
For this square there are
• 1 large square
• 4 middle-sized squares
• 1 square in the middle
• 4 small squares
Total number of squares = (1 + 4 + 1 + 4) = 10</td><td>2</td><td>2PS</td></tr>
<tr><td>8.10</td><td>(c) ✓✓
<table><tr><th>Polygon number</th><th>Number of sides</th></tr><tr><td>1</td><td>6</td></tr><tr><td>2</td><td>11</td></tr><tr><td>3</td><td>16</td></tr></table></td><td>2</td><td>2PS</td></tr>
<tr><td colspan="4">TOTAL: 80</td></tr>
</table>

10. Weighting of cognitive levels in the Term 2 examination

QUESTION	L1 (K)	L2 (RP)	L3 (CP)	L4 (PS)	Total
	Knowledge	Routine Procedures	Complex Procedures	Problem Solving	
QUESTION 1 (6 marks)					
1.1	3				3
1.2	3				3
QUESTION 2 (24 marks)					
2.1	3				3
2.2		3			3
2.3a		3			3
2.3b		3			3
2.4	3				3
2.5	2				2
2.6		1			1
2.7a		2			2
2.7b		2			2
2.7c		2			2
QUESTION 3 (6 marks)					
3.1				3	3
3.2				3	3
QUESTION 4 (3 marks)					
4.1		1			1
4.2		1			1
4.3		1			1
QUESTION 5 (11 marks)					
5.1a			3		3
5.1b		5			5
5.2		3			3
QUESTION 6 (8 marks)					
6.1			5		5
6.2			3		3
QUESTION 7 (2 marks)					
7.1a	1				1
7.1b	1				1
QUESTION 8 (20 marks)					
8.1	2				2
8.2	2				2
8.3		2			2
8.4		2			2
8.5			2		2
8.6			2		2
8.7			2		2
8.8		2			2
8.9				2	2
8.10				2	2
TOTAL	**20**	**33**	**17**	**10**	**80**
%	**25**	**41,25**	**21,25**	**12,5**	**100**
% Specified by CAPS (p. 157)	**25%**	**45%**	**20%**	**10%**	

11. An exemplar formal assessment mark record sheet

MARK RECORDING SHEET SUBJECT: Mathematics GRADE: 7 YEAR:			SCHOOL:															CLASS:			
			GRADE 7 MATHEMATICS FORMAL ASSESSMENT TASKS																		
			TERM 1			TERM 2				TERM 3				TERM 4							
			ASSIGNMENT	TEST 1	TOTAL TERM 1	INVESTIGATION	TEST 2	EXAMINATION	TOTAL TERM 2	ASSIGNMENT	PROJECT	TEST 3	TOTAL TERM 3	ASSIGNMENT	INVESTIGATION	TOTAL TERM 4	SBA TOTAL 40%	EXAMINATION 60%		COMMENT
DATE OF ASSESSMENT TASK																					
TOTAL POSSIBLE MARKS																					
No.	SURNAME	NAME															40%	60%	100%		
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
HOD signature																					
Date																					
TEACHER signature																					
Date																					

12. Templates for tracking, reflecting on and reporting curriculum coverage

12.1 Conventional schools[1]

NAME OF TEACHER:_____ **SUBJECT/GRADE:** _____

Week no. in planner _____

Week no. in term when work planned for week started _____

Refer to the planner[2] **for details of the week's work** (or the ATP for subjects without planners)

Class (or subject for FP)				
On track by end of week? (Yes/no)				
How many learners are working confidently?[3] (Rough estimate)				
How many learners in this class?				

DAY[4]	**BRIEF NOTES ON THE DAY'S WORK: Consider such things as:** *What concepts/skills did the learners struggle with or manage well in this lesson?* *What could be the reasons for this? Did the class complete the work you had planned?* *Do you need to change your plans for the next lesson? What changes will you make?*
1	
2	
3	
4	
5	

Reflection on the week: Think about and make a note of:	
What concepts and skills for the week did learners struggle with? What could you do differently next time to better support or extend learning? What good practice could you share?	**Did you cover the curriculum for the week? If not, what were some of the challenges? What can you do to catch up? What help do you need? How will your progress this week affect your plan for next week?**
DH:	**Date:**

1 Please amend this draft template to suit the needs of your school.
2 You can use any planning document (such as the CAPS planner, the ATP or printed lesson plans) as the basis for your tracking.
3 Estimate of learners in that grade that are working confidently at Level 4 (adequate achievement) or above.
4 This can also be lessons if there are more than five lessons a week.

12.2 Multigrade schools[1]

NAME OF TEACHER:_____

Week no. in planner _____

Week no. in term when work planned for week started _____

Refer to the planner[2] **for details of the week's work** (or the ATP for subjects without planners)

Subjects							
GRADE	On track this week? [3]						
	Est. learners > Level 4 [4]						
	# learners in grade						
GRADE	On track this week?						
	Est. learners > Level 4						
	# learners in grade						
GRADE	On track this week?						
	Est. learners > Level 4						
	# learners in grade						

DAY	**BRIEF NOTES ON THE DAY'S WORK: Consider such things as:** *What concepts/skills did the learners struggle with or manage well in this lesson?* *What could be the reasons for this? Did the class complete the work you had planned?* *Do you need to change your plans for the next lesson? What changes will you make?*
1	
2	
3	
4	
5	

Reflection on the week: Think about and make a note of:		
SUBJECT	**What concepts and skills for the week did learners struggle with? What could you do differently next time to better support or extend learning? What good practice could you share?**	**Did you cover the curriculum for the week? If not, what were some of the challenges? What can you do to catch up? What help do you need? How will your progress this week affect your plan for next week?**
Principal:		**Date:**

1 Please amend this draft template to suit the needs of your school.
2 You can use any planning document (such as the CAPS planner, the ATP or printed lesson plans) as the basis for your tracking.
3 Yes/no?
4 Estimate of learners in that grade that are working confidently at Level 4 (adequate achievement) or above.

Jika iMfundo
what I do matters

Jik'iMfundo is a programme to improve learning outcomes, funded by the National Education Collaboration Trust, the KwaZulu-Natal Department of Education and others.

THE PROGRAMME TO IMPROVE LEARNING OUTCOMES

The Shed
The Pines
9 Gordon Hill Road
Parktown
2193

Tel: +27 10 880 2431

Email: admin@pilo.co.za

ISBN: 978-1-990904-58-5