GRADE 7

Mathematics

Teacher Toolkit: CAPS Planner and Tracker

2019 TERM 4

CONTENTS

A. ABOUT THE TRACKER AND RESOURCES

1. Your quick guide to using this planner and tracker

What is the NECT and where do I fit in?

What you do matters! What you do every day as a teacher can change the life-chances of every child that you teach. The NECT supports teachers by providing CAPS planners and trackers so that teachers can plan to cover the curriculum, track progress, and seek help when they are falling behind.

But who will help me?

The NECT will work with your school management team (SMT) and assist them to have supportive and professional conversations with you about curriculum coverage that will be orientated to identifying and solving problems.

I have looked at the planner and tracker. It goes too fast!

The CAPS planner and tracker is an expanded ATP. It helps you pace yourself as if you were able to cover everything in the ATP/CAPS. When you fall behind because time has been lost, or because the learners are progressing slowly, you need to confidently discuss this with your teaching team without feeling blamed. The pace of coverage will be determined by the pace of learning. That is why coverage must be tracked by the teacher and the SMT.

How do I use the planner and tracker?

See the "**Quick 5-step Guide to Using the CAPS Planners and Trackers**" on the opposite page.

QUICK 5-STEP GUIDE TO USING THE CAPS PLANNERS AND TRACKERS

1. Find the textbook that YOU are using.

2. Use the planning page each week to plan your teaching for the week. It will help you link the CAPS content and skills to relevant material in the textbook, the teacher's guide, and other materials such as the DBE workbook.

3. Keep a record of the date when you were able to complete the topic. It may be different from the date you planned, and for different classes. Write this date in the column on the right for your records.

4. At the end of the week, reflect and check if you are up to date. Make notes in the blank space.

5. Be ready to have a professional and supportive curriculum coverage conversation with your HoD (or subject or phase head).

The CAPS planners and trackers also provide guidelines for assessment with samples, and may also have enrichment and remedial suggestions. Read the introduction pages carefully for a full explanation.

2. Purpose of the tracker

The Grade 7 Mathematics Curriculum and Assessment Planner and Tracker is a tool to support you in your role as a professional teacher. Its main purpose is to help you keep pace with the time requirements and the content coverage of the CAPS. The tracker provides a programme of work which should be covered each day of the term and a space for reflection on work done. By following the programme in the tracker, you should cover the curriculum in the allocated time, and complete the formal assessment programme. By noting the date when each lesson is completed, you can see whether or not you are *on track* and if not, you can strategise with your head of department and peers as to how best to make up time to ensure that all the work for the term is completed. In addition, the tracker encourages you to reflect on what in your lessons is effective, and where content coverage could be strengthened. These reflections can be shared with colleagues. In this way, the tracker may encourage continuous improvement in practice. This tracker should be kept and filed at the end of the term.

3. Links to the CAPS

The Mathematics tracker for Grade 7 is based on the requirements prescribed by the Department of Basic Education's Curriculum and Assessment Policy Statement (CAPS) for Mathematics in the Senior Phase. The work set out for each day is linked directly to the topics and subtopics given in the CAPS, and the specified amount of time is allocated to each topic. The tracker gives the page number in the CAPS document of the topics and subtopics being addressed in each session to help you to refer to the curriculum document directly should you wish to.

4. Links to the approved sets of LTSMs

The tracker coordinates the CAPS requirements with the content set out in the approved Learner's Books and Teacher's Guides. There is a tracker for each of the Learner's Books on the list of approved books on the national catalogue. You must therefore refer to the tracker for the book that is used by learners at your school. If you have copies of other Learner's Books, you can of course refer to these too, for ideas for teaching the same content in a different way – but you must be sure to cover the content systematically. For each set of learning and teaching support materials (LTSMs), links are given to the relevant pages in both the Learner's Book and Teacher's Guide to make it easier for you to access the correct resources.

In a few instances, when necessary, we recommend that you should use only selected activities from the Learner's Book. This is when the recommended exercises have more work than can be done in the time allocated to the lesson. ***Select** is marked at the top of the relevant pages in the tracker in these cases. In other instances, the Learner's Books do not have sufficient activities for learners to consolidate work done on a topic, and in these cases, we recommend that you supplement the recommended activities using the DBE worksheet referred to by the page number given in the DBE column. You could also use other approved Learner's Books or other resources which you may have.

The tracker uses the latest print editions of the eight approved Learner's Books. It is important to note that page numbers may differ slightly from other print runs of the same book. If the page numbers in your edition are not exactly the same as those given in the tracker you should use the activity/exercise numbers given in the tracker to guide you to the correct pages. These should only be a page or two different from those given in the tracker.

5. Links to the DBE workbooks

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

Note: The trackers refer to the 2017 edition of the DBE workbook. As there might have been slight changes in the edition you are using, please always check that the exercise to which you are referred is relevant for the work to which it is linked in the tracker.

6. Managing time allocated in the tracker

The CAPS prescribes four and a half hours of Mathematics per week in Grade 7. This tracker has provided work for five fifty-five minute lessons in which the CAPS requirements will be covered each week. Each school will organise its timetable differently. For this reason, you might have to divide the sessions in the programme slightly differently to accommodate the length of the lessons at your school. Depending on the pace at which your learners work, and how much support is needed, you might also have to supplement the set activities by using other resources to ensure that the

full **four and a half hours** of time for Mathematics is used constructively.

Please note that this tracker is based on a fourth term that is nine weeks long. The prescribed content should be completed by the end of Week 6, allowing some catch-up time in this week for some lessons missed for various reasons in the first six weeks. Weeks 7 and 8 are set aside for revision and the end-of-year examination, and Week 9 for review of this examination and learner corrections. Should you use this tracker in a term that is longer or shorter than this, you will need to adjust the programme of work accordingly. It is important that you check at the start of the term.

Also note that, in order to ensure that newer work is given appropriate time in the shorter time available for covering the curriculum than is prescribed in the CAPS, the sequence in which the topics is taught has been changed on the advice of the district advisors in Pinetown and King Cetshwayo. Thus the topic Probability is dealt with before Data handling.

7. Sequence adherence

The content in each tracker has been carefully sequenced, and it is therefore important that lessons are not skipped. Should you miss a Mathematics lesson for any reason or should you be going at a slower pace, you should continue the next day from where you last left off. Do not leave a lesson out to get back on track. You may need to speed up the pace of delivery to catch up the lesson schedule – such as by covering the lesson concept content of two consecutive days in one day. To do this you could cut out or cut back on some of the routine activities like Mental Mathematics or homework reflection to save time until you are back on track for curriculum coverage.

8. Links to assessment

In Term 4 of Grade 7, the formal assessment programme specified by the CAPS requires at least **one assignment, one investigation** and **an examination**. Many of the approved Learner's Books and Teacher's Guides provide exemplar assignments, investigations and examinations, which you can use with your class. The assessment plan, provided in Section D *Assessment Resources* of this document, shows when in the programme of work these assessment tasks are included in each set of materials, and on which pages in the Learner's Books or Teacher's Guides they can be found. The tracker indicates where in the series of lessons the formal assessments are to be done and when feedback should be given. The actual tasks and the dates for the assessments vary slightly from Learner's Book to Learner's Book, but are always in line with the CAPS specifications.

You should use the assignments and investigation in your set of LTSMs with due diligence making sure that you personalise them and supplement them using other Learner's Books or ANA past papers and exemplars, if necessary, in order to be sure that they fulfil the requirements of the CAPS.

We have provided an end-of-year examination and marking memorandum. In addition, there is an analysis of the examination according to the cognitive levels in the CAPS. You will find these resources in Section D *Assessment Resources* of this document.

Where the examination is in the Learner's Book, you cannot use it as part of the formal assessment programme as learners will be able to prepare for it in advance. It can, however, be used for practice and for informal assessment. Where this is the case, you will need to use an examination from a Teacher's Guide from a different set of LTSMs, or set your own, or make use of the examination in the tracker, mentioned above. We recommend that your learners write the examination in Week 8 or 9, as determined by the assessment programme at your school.

A suggested assessment record sheet is provided for you to copy and complete for all the learners in your class. This records the marks of the formal assessment that you carry out in the term. You may prefer to use your own mark sheet created using your class list.

In addition to the formal assessments specified in the CAPS, you should also assess your leaners informally. Informal assessment is an essential part of teaching and learning as it provides feedback to learners and informs planning for teaching. While informal assessment marks need not be recorded, some informal assessments, such as, class tests written after completion of a section of work should be marked. In order to **reduce teacher workload**, learners can mark their own work (**self-assessment**) using a pencil or the learners can mark each other's work **(peer marking**). The tracker does not indicate which activities should be used for informal assessment – teachers should use their own discretion in this regard.

Note: The assessment programme given in this document is based on the requirements for formal assessment in the CAPS for Mathematics in the Senior Phase (DBE 2011). The DBE occasionally changes the requirements for formal assessment, and the timing of such changes might mean that they are not reflected here. In such cases, you should adjust this document's formal assessment programme to accord with the latest requirements.

9. Resources

The tracker makes clear which resources you will need each day in order to deliver the lesson. Several of the published Learner's Books and Teacher's Guides provide printable resources that you could copy for the learners' use with the lessons in that book.

In addition, a number of actual printable resources, as well as useful information about them, are provided in two books that are part of the Jika iMfundo maths toolkit for the Intermediate Phase and Grade 7. These books are:

- *Mental Maths Activities and Printable Resources*
- *Remediation and Enrichment Activities.*

You should review both these books carefully to see for yourself how you might make best use of them. Although the remediation and enrichment activities are based on work done in grades before Grade 7, learners who did not fully grasp certain concepts in previous years will benefit from these activities. There are Mental Maths activities that are suitable for learners in all the grades from 4 to 7, and many of the printable resources will also be useful in Grade 7.

Teachers for Grades 4-7 will receive these books once. They will not be redistributed each year as the trackers are.

Section D of the tracker has resources for assessment as discussed above.

B. LESSON PREPARATION KEY STEPS

The tracker provides a detailed programme to guide you through the daily content you need to teach to your class, and when to do formal assessments. You are still required to draw up your own lesson plans. You will still make the final professional choices about which examples and explanations to give, which activities to set for your class and how to manage your class on a daily basis.

It is a good idea that you agree with your Mathematics colleagues on a day that you can get together to plan your lessons as a group and submit your plans to your head of department for quality assurance. To deliver the lessons successfully **you must do the necessary preparation yourself**. Bear in mind that your lessons will not succeed if you have not prepared properly for them. This entails a number of key steps, such as those noted below.

1. **Review the term focus:** Start by looking at the CAPS and ***orientating*** yourself to 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 trackers. 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. For example, 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 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 leaners 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? 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. Think also 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 find enrichment cards and remediation activities that might be useful in the toolkit book *Remediation and Enrichment Activities*.
- Consider the needs of any learners with barriers to learning in your class, and how best you can support them. The DBE has published some excellent materials to support you in working with learners with learning barriers. Two such publications are:
  - Directorate Inclusive Education, Department of Basic Education (2011) *Guidelines for Responding to Learner Diversity in the Classroom Through Curriculum and Assessment Policy Statements.* Pretoria. www.education.gov.za, www.thutong.doe.gov.za/InclusiveEducation
  - Directorate Inclusive Education, Department of Basic Education (2010) *Guidelines for Inclusive Teaching and Learning. Education White Paper 6. Special Needs Education: Building an Inclusive Education and Training System.* Pretoria. www.education.gov.za, www.thutong.doe.gov.za/InclusiveEducation

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 5 to 10 minutes. A Mental Mathematics programme can be found in Section E *Resources for Mental Mathematics* of this document to assist you while planning and preparing for teaching.

     Mental calculations should be used to practice concepts and skills developed through the main lesson, sometimes with smaller number ranges. Learners should not be asked to do random calculations each day (CAPS p. 39). Rather, mental calculations should be used as an opportunity to consolidate three aspects of learners' number knowledge:

     1. **Number facts**
        - 1.1 Number bonds
        - 1.2 Times tables
     2. **Calculation techniques**
        - 2.1 Doubling and halving, using multiplication to do division, multiplying and dividing by 10, 100, 1 000
        - 2.2 Multiplying by multiples of 10, 100, 1 000
        - 2.3 Building up and breaking down numbers, rounding off and compensating
     3. **Number concept**
        - 3.1 Counting, ordering and comparing, place value, odd and even numbers, multiples and factors
        - 3.2 Properties of numbers (identity elements for addition and multiplication)
        - 3.3 Commutative and associative property for addition and multiplication
        - 3.4 Inverse operation for multiplication and division.

     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.

Helping learners develop a range of Mental Mathematics strategies

Learners will be at different stages in terms of number facts that they have committed to memory and the strategies available to them for figuring out other facts. It is important for you to be aware of a range of Mental Mathematics strategies so that:

- When learners are carrying out mental calculations, you will be in a better position to recognise the strategy being used
- You can draw attention to and model a variety of strategies used by learners in the class

- You can make suggestions to learners that will move them on to more efficient strategies.

There are **THREE** aspects to ensuring that learners become effective in drawing on and using these strategies:

- Raising learner awareness of the range of strategies
- Developing their confidence and fluency with a range of strategies
- Helping them to choose the most efficient method for a given calculation from the range of strategies.

Please refer to the toolkit book *Mental Maths Activities and Printable Resources* for ideas to supplement those in the LTSMs.

- **Step 2: Homework review/reflection (10 minutes):** This is the second activity of the lesson. We recommend that you take about 10 minutes (not more) to remediate and correct the previous day'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 day's work. Allow learners the opportunity to write corrections as needed.
- **Step 3: Lesson content – concept development (20 minutes):** This is the third activity of the lesson. We recommend that you should actively teach your class for 20 minutes – going through examples interactively with your learners. Worked examples and suggested explanations are given in the Learner's Book or Teacher's Guide that you should go through with your class as a whole. The CAPS content clarification column is also 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 is the fourth activity of the lesson. 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 and do every example in the exercise yourself*** – 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 Learner's Books vary greatly in length*** and you need to make this selection in advance (ensuring that all types of activities or concepts are covered each day) so that you can give quick and clear instructions to your leaners about which numbers of each exercise 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. Look out for the ***** linked to an exercise or activity which is too long and select which numbers you want your learners to complete. 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 managed 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 is busy working through the classwork activities, you should spend some time with those learners who 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 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 day 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 Book 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. When you can, take in homework books to check the work, and always allow some time to go through the homework with the learners to check that the work has been understood.

5. **After each lesson, reflect on how it went:** Each week there is a reminder to you that you should note your thoughts about the day's lesson. You will use these notes as you plan and prepare for your teaching and in discussion with your colleagues

C. TRACKERS FOR EACH SET OF APPROVED LTSMs

1. *Clever Keeping Mathematics Simple*

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

The following components are provided in the columns of the tracker table:

1. Day/lesson number.
2. CAPS page numbers and content linked to Learner's Book content.
3. Learner's Book exercises/activities that cover the CAPS content for the day.
4. Page reference in the Learner's Book (LB page reference).
5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
6. DBE workbook link to related content (worksheet and page numbers are referenced).
7. Date completed (complete this daily).

Weekly reflection

The tracker gives you space to reflect on your Mathematics lessons on a weekly basis. You can share this reflection with your HOD and discuss things that worked or did not go so well in your lesson. Together with your HOD you can think of ways of improving on the daily work that the learners in your class are doing. When you reflect you could think about things such as:

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and so could teach it effectively?
- Did the purpose of the lesson succeed? For instance, did the learners reach a good understanding of the key concepts for the day? Could they use the language expected from them? Could they write what was expected from them?
- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
- Are your learners' books up to date?
- Does what the learners have done in their books correlate with the tracked comments in the tracker?

Briefly write down your reflection weekly, following the prompts in the tracker.

- *What went well?*
- *What did not go well?*
- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Clever Keeping Mathematics Simple Week 1 *Select										
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**				
						Date completed				
1	**Integers p. 67** Orientation – Introduction to integers	Ex. 1 1a–b, 2, 3, 6a	285 286	262	Worksheet 105 pp. 90–91					
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Ex. 1 4a, 5a, 6b, 7a–b	286	262	Worksheet 106 pp. 92–93					
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Ex. 2 1a–c, 3a Ex. 2 2a–c, 3b, 4a	289	264–265	Worksheet 107 p. 94 Worksheet 108 pp. 98–99					
4	**Properties of integers p. 67** Recognise and use commutative properties of addition and multiplication for integers	Ex. 3 1c–f, 2b, 3b	291 292	264–265	Worksheet 111 pp. 100–101					
5	Recognise and use associative and distributive properties of addition and multiplication for integers	Ex. 3 4, 5, 7a–c, 8a	292–293	266	*Worksheet 113 pp. 104–105 *Worksheet 113 pp. 106–107					

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever Keeping Mathematics Simple Week 2 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
6	**Solving problems p. 67** Solving problems in contexts involving integers	Ex. 3 9–11	293	266							
7	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Represented in physical or diagram form not limited to sequences involving a constant ratio • Of learner's own creation and represented in tables	Ex. 1 1a–f, 2a–b, 4a–d Ex. 5	296 297	270 271–272	*Worksheet 114 pp. 108 *Worksheet 115 p. 110						
8	**Functions and relationships p. 68** **Input and output values** • Describe and justify the general rules for observed relationships between numbers in own words • Determine input values, output values or rules for patterns and relationships using flow diagrams and tables	Ex. 1 3a–b Ex. 1 2c–d	297	271	Worksheet 116 pp. 111–112						
9	Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • Verbally • In flow diagrams • In tables	Ex. 1 4e–f Ex. 2 1 a–f	297 299–300	 272 272–273	Worksheet 117b pp. 108–109						
10	**Functions and relationships p. 68** **Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • By formulae and by number sentence	Ex. 2 2–3	300	273–274	Worksheet 118a p. 118						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever Keeping Mathematics Simple Week 3											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • Verbally • In flow diagrams • In tables	Ex. 1 1–3	303–304	279–280							
12	**FORMAL ASSESSMENT: Investigation**		356	326–327							
13	**Algebraic expressions p. 69** **Algebraic language** Recognise and interpret rules or relationships represented in symbolic form	Ex. 1 1a–d 2a–c	307	285	Worksheet 120 p. 130						
14	**Algebraic expressions p. 69** **Algebraic language** Identify variables and constants in formulae and equations	Ex. 2 2a–f	308	285 286	Worksheet 121 p. 126						
15	**Algebraic expressions p. 69** **Algebraic language** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation • Solve and complete number sentences by: – Inspection – Trial and improvement	Ex. 2 4a–g, 5a–b, 6, 7	308 309	286–287	Worksheet 119 p. 122						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Clever Keeping Mathematics Simple Week 4 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
16	**Algebraic expressions p. 69** **Algebraic language** Describe the numerical value of an expression by substitution	Ex. 2 1a–j 8a–c 9a–c 10a–d	308–310	285–287	Worksheet 123 p. 131 Worksheet 125 p. 133						
17	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation • Solve and complete number sentences by: – Inspection – Trial and improvement	Ex. 1 1a–d 3a–d 5a–b 6a–d	312–313	290–291	*Worksheet 121 p. 126						
18	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity	1–3	345	321–322	Worksheet 137 p. 174						
19	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • Determine the probability of each possible outcome, using the definition of probability	Ex. 1 1–3	349 350	322	Worksheet 138 p. 176						
20	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Ex. 2 1a–d	351	322	Worksheet 139 p. 178						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever Keeping Mathematics Simple Week 5 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
21	**Probability p. 73** Perform simple experiments where the possible outcomes are equally likely	Ex. 2 2a–c	351–352	322	Worksheet 140 p. 180						
22	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) • Distinguish between samples and populations	Ex. 1 1a–c 2a–c	317–319	298–300	Worksheet 126a p. 136						
23	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Tally and tables	Ex. 2 1, 2 Ex. 3 1–3	320 323	301	Worksheet 126b p. 138 Worksheet 127a p. 140						
24	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Stem and leaf displays • Summarise and distinguish between ungrouped numerical data by determining mean, median and mode • Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range)	Ex. 4 1, 2a–f	325–326	301–302	Worksheet 128a p. 144						
25	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Bar graphs and double bar graphs	Ex. 1 1a–e Ex. 2 1–4	328 330	307 308–309	Worksheet 128b p. 146						
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD:				**Date:**					

Clever Keeping Mathematics Simple Week 6 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
26	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Histograms with given intervals – Pie charts	Ex. 3 1a–e 2a–d Ex. 4 1–2	332–333 333–334	309–310 310–311	Worksheet 129a pp. 147–148						
27	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Ex. 1 1–2	338–340	315	*Worksheet 131a p. 156 *Worksheet 131b p. 158 *Worksheet 133 p. 164						
28	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data • Identifying sources of error and bias in the data	Ex. 2 1–3 Ex. 3 1–2	341 343	315 315	Worksheet 134a p. 166						
29	• Choosing appropriate summary statistics for the data (mean, mode, median)	Ex. 4 1–3	344	315–316	Worksheet 134b p. 168						
30	**Formal Assessment:** Assignment		353	323–325							
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD: **Date:**									

Clever Keeping Mathematics Simple Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	Final examination (revision)			328–336							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever Keeping Mathematics Simple Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

2. *Mathematics Today*

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

The following components are provided in the columns of the tracker table:

1. Day/lesson number.
2. CAPS page numbers and content linked to Learner's Book content.
3. Learner's Book exercises/activities that cover the CAPS content for the day.
4. Page reference in the Learner's Book (LB page reference).
5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
6. DBE workbook link to related content (worksheet and page numbers are referenced).
7. Date completed (complete this daily).

Weekly reflection

The tracker gives you space to reflect on your Mathematics lessons on a weekly basis. You can share this reflection with your HOD and discuss things that worked or did not go so well in your lesson. Together with your HOD you can think of ways of improving on the daily work that the learners in your class are doing. When you reflect you could think about things such as:

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and so could teach it effectively?
- Did the purpose of the lesson succeed? For instance, did the learners reach a good understanding of the key concepts for the day? Could they use the language expected from them? Could they write what was expected from them?
- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
- Are your learners' books up to date?
- Does what the learners have done in their books correlate with the tracked comments in the tracker?

Briefly write down your reflection weekly, following the prompts in the tracker.

- *What went well?*
- *What did not go well?*
- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Mathematics Today Week 1 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
1	**Integers p. 67** Orientation – Introduction to integers	Ex. 18.1 1–3	236	93	Worksheet 105 pp. 90–91						
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Ex. 18.2 1–5	237	93	Worksheet 106 pp. 92–93						
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Ex. 18.5 1–2 Ex. 18.6 2–3	240 241	94	*Worksheet 107 pp. 94–94 *Worksheet 108 pp. 98–99						
4	**Properties of integers p. 67** • Recognise and use commutative properties of addition and multiplication for integers	Ex. 18.8 3	243	94	Worksheet 111 pp. 100–101						
5	• Recognise and use associative and distributive properties of addition and multiplication for integers	Ex. 18.10 1–4	246	95	*Worksheet 113 pp. 104–105						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Mathematics Today Week 2

*Select

Day	CAPS concepts and skills	LB ex.	LB pp.	TG pp.	DBE workbook	Class				
						Date completed				
6	**Solving problems p. 67** Solving problems in contexts involving integers	Ex. 18.9 3	244	94						
7	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Represented in physical or diagram form not limited to sequences involving a constant ratio • Of learner's own creation represented in tables	Ex. 19.1 2, 3, 5 Ex. 19.2 1–3	250–251 253	97 98	*Worksheet 114 p. 108 *Worksheet 115 p. 110					
8	**Functions and relationships p. 68** • Describe and justify the general rules for observed relationships between numbers in own words • Determine input values, output values or rules for patterns and relationships using flow diagrams	Ex. 20.1 1.1–1.10 2.1–2.6	258	101–102	Worksheet 116 pp. 111–112					
9	Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • Verbally • In flow diagrams • In tables	Ex. 20.2 1, 2, 3	259–260	102	*Worksheet 114 pp. 108–109					
10	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • By formulae and number sentence	Ex. 20.3 1, 2	262	102	Worksheet 118a p. 118					

Reflection

Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Mathematics Today Week 3 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	**REVISION** **Functions and relationships graphs**	1, 2, 3	263	103							
12	**Algebraic expressions p. 69** **Algebraic language** Recognise and interpret rules or relationships represented in symbolic form Identify variables and constants in formulae and equations	Ex. 21.1 1, 2,3, 4 Ex. 21.2 1–3	266 267	105	Worksheet 120 p. 130						
13	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations	Ex. 22.1 1–3	273–274	108	Worksheet 121 p. 126						
14	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation • Solve and complete number sentences by: – Inspection – Trial and improvement	Ex. 22.3 1, 2 Ex. 22.4 1, 2	276–278	109	Worksheet 119 p. 122 *Worksheet 121 p. 126						
15	**FORMAL ASSESSMENT: Assignment**	Task 1	281	111							
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD: **Date:**									

Mathematics Today Week 4 *Select										
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**				
						Date completed				
16	Describe the numerical value of an expression by substitution	Ex. 22.6 1–4	279	109	Worksheet 123 p. 131 Worksheet 125 p. 133					
17	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Ex. 24.1 1–3	311	122	Worksheet 137 p. 174					
18	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • Determine the probability of each possible outcome, using the definition of probability	Ex. 24.2 1–3	313	122	Worksheet 138 p. 176					
19	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Ex. 24.3 1–5	315	123	Worksheet 139 p. 178					
20	**Remediate: Assignment** **Revise: Probability**	1–4	316	124						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Mathematics Today Week 5											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
21	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) • Distinguish between samples and populations	Ex. 23.1 1, 2, 3	285	112	Worksheet 126a p. 136						
22	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Tally and tables – Stem and leaf displays – Data intervals	Ex. 23.2 1, 2 Ex. 23.3 1, 2 Ex. 23.4 1–2	287–288	113	Worksheet 126b p. 138						
23	**Collect, organise and summarise data p. 71** • Group data into intervals • Summarise and distinguish between ungrouped numerical data by determining mean, median and mode • Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range)	Ex. 23.5 1 Ex. 23.6 1–5 Ex. 23.7 2 Ex. 23.8 2	290 291 292 293	113 114 115	Worksheet 127b p. 142 Worksheet 128a p. 144 Worksheet 128b p. 146						
24	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Bar graphs and double bar graphs	Ex. 23.9 1–4 Ex. 23.10 1–2	295 296–297	115 116	Worksheet 129a pp. 147–148						
25	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Histograms with given intervals – Pie charts	Ex 23.11 1–2 Ex 23.12 1–2	298 299	116–117	*Worksheet 131a p. 156 *Worksheet 131b p. 158						
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD:			**Date:**						

Mathematics Today Week 6

*Select

Day	CAPS concepts and skills	LB ex.	LB pp.	TG pp.	DBE workbook	Class				
						Date completed				
26	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Ex. 23.13 1 Ex. 23.14 1 Ex. 23.14 2–3	301 303 303–304	117–118 118 118	*Worksheet 131a p. 156 *Worksheet 131b p. 158 *Worksheet 133 p. 164					
27	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data	Ex. 23.15 1	305	118	Worksheet 134a p. 166 Worksheet 134b p. 168					
28	• Identifying sources of error and bias in the data	Ex. 23.14	305	118						
29	**Revision: Data Handling**	1, 2, 3	306	119						
30	**FORMAL ASSESSMENT: Investigation**	Task 2	307	120–121						

Reflection

Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Mathematics Today Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	Revision: End-of-year examination		317–318	125 126–129							

Reflection

Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Mathematics Today Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

3. *Oxford Headstart Mathematics*

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

The following components are provided in the columns of the tracker table:

1. Day/lesson number.
2. CAPS page numbers and content linked to Learner's Book content.
3. Learner's Book exercises/activities that cover the CAPS content for the day.
4. Page reference in the Learner's Book (LB page reference).
5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
6. DBE workbook link to related content (worksheet and page numbers are referenced).
7. Date completed (complete this daily).

Weekly reflection

The tracker gives you space to reflect on your Mathematics lessons on a weekly basis. You can share this reflection with your HOD and discuss things that worked or did not go so well in your lesson. Together with your HOD you can think of ways of improving on the daily work that the learners in your class are doing. When you reflect you could think about things such as:

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and so could teach it effectively?
- Did the purpose of the lesson succeed? For instance, did the learners reach a good understanding of the key concepts for the day? Could they use the language expected from them? Could they write what was expected from them?
- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
- Are your learners' books up to date?
- Does what the learners have done in their books correlate with the tracked comments in the tracker?

Briefly write down your reflection weekly, following the prompts in the tracker.

- *What went well?*
- *What did not go well?*
- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Oxford Headstart Mathematics Week 1 *Select											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
1	**Integers p. 67** Orientation – Introduction to integers	Act. 1 1–4	293	236	Worksheet 105 pp. 90–91						
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Act. 3 1 Act. 4 1, 2, 4	294 295	237 298	Worksheet 106 pp. 92–93						
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Act. 1 1–8 Act. 2 2 Act. 3	298 300 301	239 241	Worksheet 107 pp. 94–94 Worksheet 108 pp. 98–99						
4	**Properties of integers p. 67** Recognise and use commutative properties of addition and multiplication for integers	Act. 1 1–5	302	242	Worksheet 111 pp. 100–101						
5	Recognise and use associative and distributive properties of addition and multiplication for integers	Act. 1 6–11	302	242	*Worksheet 113 pp. 104–105						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Headstart Mathematics Week 2											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
6	**Solving problems p. 67** Solving problems in contexts involving integers	Act. 2 1a–e, 3	303	243							
7	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Represented in physical or diagram form not limited to sequences involving a constant ratio • Represented in tables	Act. 1 1a–j Act. 2 1–5 Act. 3 1, 2	306 308	246 247	*Worksheet 114 p. 108 *Worksheet 115 p. 110						
8	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Represented in physical or diagram form not limited to sequences involving a constant ratio • Of learner's own creation • Represented in tables	Act. 3 3, 4, 7	309	247	Worksheet 116 pp. 111–112						
9	**Functions and relationships p. 68** **Input and output values** • Determine input values, output values or rules for patterns and relationships using tables • Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: – Verbally – In flow diagrams – In tables	Act. 1 1–5 Act. 2 1, 3, 5, 7	314 315	254 255	Worksheet 117a p. 114 Worksheet 117b pp. 108–109						
10	**Equivalent forms** • Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: – By formulae and number sentence	Act. 3 1–3 Act. 1 1–4	315– 316 318	255– 258	Worksheet 118a pp. 118						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Headstart Mathematics Week 3											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	**Algebraic expressions p. 69** **Algebraic language** • Identify variables and constants in formulae and equations • Recognise and interpret rules or relationships represented in symbolic form	Act. 1 1a, b, e, f 2a–j	322	262	Worksheet 120 p. 130						
12	**Algebraic expressions p. 69** **Algebraic language** • Write algebraic expression from words	Act. 2 1–8	322	261	Worksheet 121 p. 126						
13	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation	Act. 1 1–5	323	262	Worksheet 119 p. 122						
14	• Solve and complete number sentences by: – Inspection – Trial and improvement	Act. 2 1–5	324	263	Worksheet 121 p. 126						
15	**FORMAL ASSESSMENT: Investigation**	Task 1	310–311	252							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Headstart Mathematics Week 4											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
16	**Algebraic equations p. 69** **Number sentences** Describe the numerical value of an expression by substitution	Act. 3 1, 2, 3 Act. 4 1–3	325	263	Worksheet 123 p. 131 Worksheet 125 p. 133						
17	**Probability p. 73** Perform simple experiments where the possible outcomes are equally likely and • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Act. 1 1–12	368–369	296	Worksheet 137 p. 174						
18	**Probability p. 73** Perform simple experiments where the possible outcomes are equally likely and • Determine the probability of each possible outcome, using the definition of probability	Act. 2 1–11	370	296–297	Worksheet 138 p. 176						
19	**Probability p. 73** Perform simple experiments where the possible outcomes are equally likely and • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Act. 3 1–11	371	297	Worksheet 139 p. 178						
20	**Probability p. 73** Perform simple experiments where the possible outcomes are equally likely and • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Act. 4 1–2	372	297							
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD: **Date:**									

Oxford Headstart Mathematics Week 5											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
21	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Act. 5 Act. 6 1–3	373–274	297–298	Worksheet 140 p. 180						
22	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines)	Act. 1 Act. 2 Act. 3	329 330	267–269	Worksheet 126a p. 136						
23	**Collect data p. 70** • Distinguish between samples and populations • Design and use a questionnaire **FORMAL ASSESSMENT: Investigation (Task 1 of Project)**	Act. 4 Act. 5 PoA	332–334 334–335	270–271 272							
24	**Organise and summarise data p. 70** • **Organise (including grouping where appropriate) and record data using:** – Tally and tables – Stem and leaf displays – Data intervals **FORMAL ASSESSMENT: Investigation (Task 2 of Project)**	Act. 1 Act. 2 Act. 3 PoA	337 339 340 341	273–276 276	Worksheet 126b p. 138 * Worksheet 127a p. 140						
25	• Summarise and distinguish between ungrouped numerical data by determining mean, median and mode • Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range) **FORMAL ASSESSMENT: Investigation (Task 3 of Project)**	Act. 1 Act. 2 1, 2, 3 PoA	342 344 344	277 278 278	Worksheet 128a p. 144 Worksheet 128b p. 146						
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD:			**Date:**						

Oxford Headstart Mathematics Week 6 *Select											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
26	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Bar graphs and double bar graphs – Histograms with given intervals – Pie charts	Act. 1 1–2 Act. 2 2–3	347 349	280–284	Worksheet 129a pp. 147–148						
27	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Pie charts **FORMAL ASSESSMENT: Investigation (Task 4 of Project)**	Act. 3 1–2 Act. 4 1–2 Act. 5 1–4 PoA	351–353 353	284–286 286							
28	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Act. 1 1–3 Act. 2 1–4	354–356 357–358	287 289	Worksheet 131a p. 156 Worksheet 131b p. 158 Worksheet 133 p. 164						
29	**Analyse data p. 72** • Analyse – Critically analyse data by answering questions related to: – Identifying sources of error and bias in the data	Act. 3 1a–c Act. 4 1a–d Act. 5 1–2	360	291–292	*Worksheet 134a p. 166 *Worksheet 134b p. 168						

Day	CAPS concepts and skills	LB act.	LB pp.	TG pp.	DBE workbook	Class				
						Date completed				
30	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data **FORMAL ASSESSMENT: Investigation (Task 5 of Project)**	Act. 6 1–6 Act. 7 1–4 PoA	364 365 367	292 292–293						

Reflection

Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Headstart Mathematics Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	End-of-year examination		376–383	300–303 Questions 303–307 Memo 308–311							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Headstart Mathematics Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

4. *Oxford Successful Mathematics*

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

The following components are provided in the columns of the tracker table:

1. Day/lesson number.
2. CAPS page numbers and content linked to Learner's Book content.
3. Learner's Book exercises/activities that cover the CAPS content for the day.
4. Page reference in the Learner's Book (LB page reference).
5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
6. DBE workbook link to related content (worksheet and page numbers are referenced).
7. Date completed (complete this daily).

Weekly reflection

The tracker gives you space to reflect on your Mathematics lessons on a weekly basis. You can share this reflection with your HOD and discuss things that worked or did not go so well in your lesson. Together with your HOD you can think of ways of improving on the daily work that the learners in your class are doing. When you reflect you could think about things such as:

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and so could teach it effectively?
- Did the purpose of the lesson succeed? For instance, did the learners reach a good understanding of the key concepts for the day? Could they use the language expected from them? Could they write what was expected from them?
- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
- Are your learners' books up to date?
- Does what the learners have done in their books correlate with the tracked comments in the tracker?

Briefly write down your reflection weekly, following the prompts in the tracker.

- *What went well?*
- *What did not go well?*
- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Oxford Successful Mathematics Week 1 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
1	**Integers p. 67** Orientation – Introduction to integers	Ex. 1 2, 3	301	194	Worksheet 105 pp. 90–91						
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Ex. 1 1–3	303	195	Worksheet 106 pp. 92–93						
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Ex. 1 1, 5, 9 Ex. 1 2, 6, 10, 12 Ex. 2 1, 2	307 309	197 198	*Worksheet 107 p. 94 *Worksheet 108 pp. 98–99 * Worksheet 109 p. 98						
4	**Properties of integers p. 67** Recognise and use commutative properties of addition and multiplication for integers	Ex. 1	312	200	Worksheet 111 pp. 100–101						
5	Recognise and use associative and distributive properties of addition and multiplication for integers	Ex. 2 Ex. 3	313 314	200	*Worksheet 113 pp. 104–105						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Successful Mathematics Week 2 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
6	**Solving problems p. 67** Solving problems in contexts involving integers	Ex. 1	316	201							
7	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Of learner's own creation • Represented in tables • Represented in physical or diagram form not limited to sequences involving a constant ratio	Ex. 1 1, 2, 3 Ex. 1 1, 3, 4	322 324	206 208	*Worksheet 114 p. 108 *Worksheet 115 p. 110						
8	**Functions and relationships p. 68** **Input and output values** • Describe and justify the general rules for observed relationships between numbers in own words • Determine input values, output values or rules for patterns and relationships using flow diagrams and tables	Ex. 1 3, 4, 5, 6	327–328	209–210	Worksheet 116 pp. 111–112 Worksheet 117a p. 114						
9	**Functions and relationships p. 68** **Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • By formulae and by number sentence	Ex. 1 1, 2, 4	330	215	Worksheet 118a p. 118						
10	Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • Verbally • In flow diagrams • In tables	Ex. 1 3, 5	330–331	215	Worksheet 118b p. 120						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Successful Mathematics Week 3 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	**REVISION: Functions and relationships graphs**	1, 3, 4, 5	333	213							
12	**FORMAL ASSESSMENT: Assignment**	Option 1	390	271							
13	**Algebraic expressions p. 69** **Algebraic language** Recognise and interpret rules or relationships represented in symbolic form	Ex. 1 1, 3, 5	335	215	Worksheet 120 p. 130						
14	**Algebraic expressions p. 69** **Algebraic language** Identify variables and constants in formulae and equations	Ex. 1 2, 4, 6	335	215	Worksheet 121 p. 126						
15	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation	Ex. 1 1, 3, 5	338	217	Worksheet 119 p. 122						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Successful Mathematics Week 4 *Select										
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class** **Date completed**				
16	• Solve and complete number sentences by: – Inspection – Trial and improvement	Ex. 1 2, 4, 6, 8	338	217	Worksheet 121 p. 126					
17	Describe the numerical value of an expression by substitution	Ex. 1 7	338	217	Worksheet 123 p. 131 Worksheet 125 p. 133					
18	**FORMAL ASSESSMENT: Alternative Assignment**	Option 2	391	272						
19	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity	Ex. 1 1–2	369	240–241	Worksheet 137 p. 174					
20	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • Determine the probability of each possible outcome, using the definition of probability	Ex. 2 1	369	241–242	Worksheet 138 p. 176					

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Successful Mathematics Week 5 *Select										
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**				
						Date completed				
21	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Ex. 2 2.1–2.9	369	242	Worksheet 139 p. 178					
22	**FORMAL ASSESSMENT: Investigation (Option 1)**	Option 1	394–395	275						
23	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) • Distinguish between samples and populations	Ex. 1	344	222	Worksheet 126a p. 136					
24	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Tally and tables – Stem and leaf displays – Data intervals	Ex. 1 1, 2, 3 Ex. 2	350 352	226 228	Worksheet 126b p. 138 * Worksheet 127a p. 140					
25	– Summarise and distinguish between ungrouped numerical data by determining mean, median and mode – Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range)	Ex. 3 Ex. 4	353 354	229–230	Worksheet 128a p. 144 Worksheet 128b p. 146					
Reflection										
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?								
		HOD:			**Date:**					

Oxford Successful Mathematics Week 6											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
26	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Bar graphs and double bar graphs – Histograms with given intervals – Pie charts	Ex. 1 1–2 Ex. 2 1–4 Ex. 3 1–5	356 358 359	232 233 234							
27	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Ex. 1 1–3	362–363	236–237	Worksheet 131a p. 156 Worksheet 131b p. 158 Worksheet 133 p. 164						
28	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data	Ex. 2 1–2	364–365	238–239	Worksheet 134a p. 166						
29	• Identifying sources of error and bias in the data • Choosing appropriate summary statistics for the data (mean, mode, median)	Ex. 1	368	240	Worksheet 134b p. 168						
30	**FORMAL ASSESSMENT: Investigation (Option 2)** **OR Revision: Data Handling and Probability**	Option 2 1–2	392–393 372–373	273–274 243							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Successful Mathematics Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	End-of-year examination		399–402	276–277 Questions 278–281 Memo 282–284							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Successful Mathematics Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

5. *Platinum Mathematics*

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

The following components are provided in the columns of the tracker table:

1. Day/lesson number.
2. CAPS page numbers and content linked to Learner's Book content.
3. Learner's Book exercises/activities that cover the CAPS content for the day.
4. Page reference in the Learner's Book (LB page reference).
5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
6. DBE workbook link to related content (worksheet and page numbers are referenced).
7. Date completed (complete this daily).

Weekly reflection

The tracker gives you space to reflect on your Mathematics lessons on a weekly basis. You can share this reflection with your HOD and discuss things that worked or did not go so well in your lesson. Together with your HOD you can think of ways of improving on the daily work that the learners in your class are doing. When you reflect you could think about things such as:

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and so could teach it effectively?
- Did the purpose of the lesson succeed? For instance, did the learners reach a good understanding of the key concepts for the day? Could they use the language expected from them? Could they write what was expected from them?
- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
- Are your learners' books up to date?
- Does what the learners have done in their books correlate with the tracked comments in the tracker?

Briefly write down your reflection weekly, following the prompts in the tracker.

- *What went well?*
- *What did not go well?*
- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Platinum Mathematics Week 1 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
1	**Integers p. 67** Orientation – Introduction to integers	Ex. 18.1 1a–d	211	109	Worksheet 105 pp. 90–91						
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Ex. 18.1 2, 3, 4, 5, 6	211	109	*Worksheet 106 pp. 92–93						
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Ex. 18.2 1, 2, 3 Ex. 18.3 1, 4	213 214	110 110	*Worksheet 107 pp. 94–94 *Worksheet 108 pp. 98–99						
4	**Properties of integers p. 67** Recognise and use commutative properties of addition and multiplication for integers	Ex. 18.4 3	215	112	Worksheet 111 pp. 100–101						
5	Recognise and use associative and distributive properties of addition and multiplication for integers	Ex. 18.4 4, 5	215	112	*Worksheet 113 pp. 104–106						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Platinum Mathematics Week 2 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
6	**Solving problems p. 67** Solving problems in contexts involving integers	Ex. 18.5 1, 3, 5	216	113							
7	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Represented in physical or diagram form not limited to sequences involving a constant ratio	Ex. 19.1 3, 4, 5	219	114	*Worksheet 114 p. 108						
8	Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Of learner's own creation and represented in tables	Ex. 19.1 1a–d, 3a–c	219	114	*Worksheet 115 p. 110						
9	• Describe and justify the general rules for observed relationships between numbers in own words • Determine input values, output values or rules for patterns and relationships using tables	Ex. 19.1 1e–g Ex. 19.2 1, 3, 5	219 220	114 115	Worksheet 116 pp. 111–112						
10	**Functions and relationships p. 68** **Input and output values** • Determine input values, output values or rules for patterns and relationships using tables and flow diagrams	Ex. 20.4 1	226	118	Worksheet 117a p. 114						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Platinum Mathematics Week 3 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	**Functions and relationships p. 68** **Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • In flow diagrams and tables • By formulae • By number sentence	1–5	235	126	Worksheet 118a p. 118						
12	**REVISION:** **Number Patterns** **Functions and relationships graphs**	1–6 1–6	223 227	116 119							
13	**FORMAL ASSESSMENT: Assignment**	Task 1	228	122							
14	**Algebraic expressions p. 69** **Algebraic language** Recognise and interpret rules or relationships represented in symbolic form	Ex. 21.1 1, 2	230	124	Worksheet 120 p. 130						
15	**Algebraic expressions p. 69** **Algebraic language** Identify variables and constants in formulae and equations	Ex. 21.2 1 Ex. 21.3 1	232 233	122 125	Worksheet 121 p. 126						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Platinum Mathematics Week 4											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
16	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation	Ex. 22.1 1–2	237	128–129	Worksheet 119 p. 122						
17	• Solve and complete number sentences by: – Inspection – Trial and improvement	Ex. 22.1 4a–c, 5a–c	238	129	Worksheet 121 p. 126						
18	Describe the numerical value of an expression by substitution	Ex. 22.2 3, 4	239–240	130	Worksheet 123 p. 131 Worksheet 125 p. 133						
19	**FORMAL ASSESSMENT: Investigation**		242–243	131–132							
20	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity	Ex. 26.1 1–2	272	148	Worksheet 137 p. 174						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Platinum Mathematics Week 5											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
21	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity	Ex. 26.1 3–4	272	148	Worksheet 139 p. 178						
22	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • Determine the probability of each possible outcome, using the definition of probability	Revision 1–5	273		Worksheet 140 p. 180						
23	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) • Distinguish between samples and populations	Ex. 23.1 1–3	246	134	Worksheet 126a p. 136						
24	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Tally and tables – Stem and leaf displays – Data intervals	Ex. 23.2 1, 2, 3, 4	249	135–136	Worksheet 126b p. 138 Worksheet 127a p. 140						
25	**Organise and summarise data p. 70** • Summarise and distinguish between ungrouped numerical data by determining mean, median and mode • Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range)	Ex. 23 .3 1–6	251–252	136–137	Worksheet 128a p. 144 Worksheet 128b p. 146						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Platinum Mathematics Week 6 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
26	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Bar graphs and double bar graphs – Histograms with given intervals – Pie charts	Ex. 24.1 1–2 Ex. 24.2 1–2	255 257	140 141	Worksheet 129a p. 147–148						
27	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included): – Histograms with given intervals – Pie charts	Ex. 24.2 3 Ex. 24.3 1–2	257 258	141 142–143	Worksheet 128a p. 144 Worksheet 128b p. 146						
28	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms	Ex. 25.1 1–3	250	144	Worksheet 131a p. 156 Worksheet 131b p. 158						
29	**Interpret and analyse data p. 72** • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Ex. 25.2 1–4	263–265	145–146	Worksheet 133 p. 164						
30	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data – Identifying sources of error and bias in the data – Choosing appropriate summary statistics for the data (mean, mode, median)	Ex. 25.3 1, 2	266	147	Worksheet 134a p. 166 Worksheet 134b p. 168						
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD:			**Date:**						

Platinum Mathematics Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	End-of-year examination		274–277	150 Questions 153–155 Memo 157							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Platinum Mathematics Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

6. *Premier Mathematics*

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

The following components are provided in the columns of the tracker table:

1. Day/lesson number.
2. CAPS page numbers and content linked to Learner's Book content.
3. Learner's Book exercises/activities that cover the CAPS content for the day.
4. Page reference in the Learner's Book (LB page reference).
5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
6. DBE workbook link to related content (worksheet and page numbers are referenced).
7. Date completed (complete this daily).

Weekly reflection

The tracker gives you space to reflect on your Mathematics lessons on a weekly basis. You can share this reflection with your HOD and discuss things that worked or did not go so well in your lesson. Together with your HOD you can think of ways of improving on the daily work that the learners in your class are doing. When you reflect you could think about things such as:

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and so could teach it effectively?
- Did the purpose of the lesson succeed? For instance, did the learners reach a good understanding of the key concepts for the day? Could they use the language expected from them? Could they write what was expected from them?
- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
- Are your learners' books up to date?
- Does what the learners have done in their books correlate with the tracked comments in the tracker?

Briefly write down your reflection weekly, following the prompts in the tracker.

- *What went well?*
- *What did not go well?*
- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Premier Mathematics Week 1 *Select										
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**				
						Date completed				
1	**Integers p. 67** Orientation – Introduction to integers	Ex. 1 1a–e	118	96	Worksheet 105 pp. 90–91					
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Ex. 1 2, 5	119	96	Worksheet 106 pp. 92–93					
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Ex. 2 1, 2a, c, e Ex. 3 1	120 121	97 98	Worksheet 107 pp. 94–94 Worksheet 108 pp. 98–99					
4	**Properties of integers p. 67** Recognise and use commutative properties of addition and multiplication for integers	Ex. 4 1a–h	122	98	Worksheet 111 pp. 100–101					
5	Recognise and use associative and distributive properties of addition and multiplication for integers	Ex. 4 2a–j 2a–h	122	98	*Worksheet 113 pp. 104–105 *Worksheet 113 pp. 106–107					

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Premier Mathematics Week 2											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
6	**Solving problems p. 67** Solving problems in contexts involving integers	Ex. 5 1, 2	123–124	99							
7	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Of learner's own creation and represented in tables • Represented in physical or diagram form not limited to sequences involving a constant ratio	Ex. 1 1a–e, 2a–b, 3b	126	100	*Worksheet 114 p. 108						
8	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: • Of learner's own creation and represented in tables – Represented in physical or diagram form not limited to sequences involving a constant ratio	Ex. 2 1–2 Ex. 3 1–4	127–128								
9	**Functions and relationships p. 68** **Input and output values** • Describe and justify the general rules for observed relationships between numbers in own words • Determine input values, output values or rules for patterns and relationships using: – Verbally – Flow diagrams – Tables	Ex. 1 1–3	130–131	102–103	Worksheet 116 pp. 111–112 Worksheet 117a p. 114 Worksheet 117b pp. 108–109						
10	**Functions and relationships p. 68** **Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • By formulae • By number sentence	Ex. 2 1–3	131–132	103	Worksheet 118a p. 118						
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why? **HOD:** **Date:**									

Premier Mathematics Week 3											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	**Algebraic expressions p. 69** **Algebraic language** Recognise and interpret rules or relationships represented in symbolic form Identify variables and constants	Ex. 1 1–3	133	104	Worksheet 121 p. 126						
12	**Algebraic expressions p. 69** **Algebraic language** Recognise and interpret rules or relationships represented in symbolic form	Ex. 2 1–2	134	104	Worksheet 120 p. 124						
13	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations	Ex. 1 1–10	135	105	Worksheet 119 p. 122						
14	**Algebraic equations p. 69** **Number sentences** • Analyse and interpret a number sentence that describes a given situation	Ex. 2 1–10	136	105–106							
15	• Solve and complete number sentences by: – Inspection – Trial and improvement	Ex. 3 1–3	137	106–107	Worksheet 121 p. 126						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Premier Mathematics Week 4											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
16	Determine the numerical value of an expression by substitution	Ex. 4 1–2	137–138	107	Worksheet 121 p. 126						
17	**FORMAL ASSESSMENT: Assignment** **Selected topics only**		157–164	115–120							
18	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity	Ex. 1 1–2	150–151	114	Worksheet 137 p. 174						
19	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • Determine the probability of each possible outcome, using the definition of probability	Ex. 2 1–2	152–153	114	Worksheet 139 p. 178						
20	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Ex. 2 3–4	155	114	Worksheet 140 p. 180						

Reflection

Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Premier Mathematics Week 5											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
21	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Ex. 3 1–4	154–156	115							
22	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) • Distinguish between samples and populations	Ex. 1 1–5	138–139	108	Worksheet 126a p. 136						
23	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Tally tables – Stem and leaf displays	Ex. 2 1, 4, 5	141–142	108–109	Worksheet 126b p. 138 Worksheet 127a p. 140						
24	**Collect, organise and summarise data p. 71** • Group data into intervals • Summarise and distinguish between ungrouped numerical data by determining mean, median and mode • Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range)	Ex. 2 2a–d, 3, 6	141–142	109–110	Worksheet 128a p. 144 Worksheet 128b p. 146						
25	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included) – Bar graphs and double bar graphs – Histograms with given intervals – Pie charts	Ex. 3 1–4	144	110–112	Worksheet 129a pp. 147–148						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Premier Mathematics Week 6											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
26	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Ex. 4 1, 2	146–148	112	Worksheet 131a p. 156 Worksheet 131b p. 158 Worksheet 133 p. 164						
27	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data	Ex. 4 3–4	148	112–113	Worksheet 134a p. 166						
28	• Identifying sources of error and bias in the data • Choosing appropriate summary statistics for the data (mean, mode, median)	Ex. 4 5	151	112	Worksheet 134b p. 168						
29	**FORMAL ASSESSMENT: Investigation**		149–150	113							
30	**REVISION**	Ex. 1–11	166–171	121–123							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Premier Mathematics Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	End-of-year examination			Questions 124–132 Memo 133–137							

Reflection

Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Premier Mathematics Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

7. Solutions for All Mathematics

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

The following components are provided in the columns of the tracker table:

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3. Learner's Book exercises/activities that cover the CAPS content for the day.
4. Page reference in the Learner's Book (LB page reference).
5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
6. DBE workbook link to related content (worksheet and page numbers are referenced).
7. Date completed (complete this daily).

Weekly reflection

The tracker gives you space to reflect on your Mathematics lessons on a weekly basis. You can share this reflection with your HOD and discuss things that worked or did not go so well in your lesson. Together with your HOD you can think of ways of improving on the daily work that the learners in your class are doing. When you reflect you could think about things such as:

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and so could teach it effectively?
- Did the purpose of the lesson succeed? For instance, did the learners reach a good understanding of the key concepts for the day? Could they use the language expected from them? Could they write what was expected from them?
- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
- Are your learners' books up to date?
- Does what the learners have done in their books correlate with the tracked comments in the tracker?

Briefly write down your reflection weekly, following the prompts in the tracker.

- *What went well?*
- *What did not go well?*
- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Solutions for All Mathematics Week 1 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
1	**Integers p. 67** Orientation – Introduction to integers	1–4	316	201	Worksheet 105 pp. 90–91						
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Ex. 29.1 1–3	320	202	Worksheet 106 pp. 92–93						
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Ex. 29.2 1, 3, 5 Ex. 29.3 1, 5, 7	323 324 327	203 204	Worksheet 107 pp. 94–94 Worksheet 108 pp. 98–99						
4	**Properties of integers p. 67** Recognise and use commutative properties of addition and multiplication for integers	Ex. 29.4 1, 2	330 331	205	Worksheet 111 pp. 100–101						
5	Recognise and use associative and distributive properties of addition and multiplication for integers	Ex. 29.4 3a–c	330 331	205	*Worksheet 113 pp. 104–106						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Solutions for All Mathematics Week 2 *Select										
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**				
						Date completed				
6	**Solving problems p. 67** Solving problems in contexts involving integers	6a–d	333	206						
7	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** • Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: – Of learner's own creation and represented in tables – Represented in physical or diagram form not limited to sequences involving a constant ratio	Ex. 30.1 1, 3, 4	336–337	210	*Worksheet 114 p. 108 *Worksheet 115 p. 110					
8	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** • Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns: – Of learner's own creation and represented in tables – Represented in physical or diagram form not limited to sequences involving a constant ratio	Ex. 30.2 1–3	339–340	211–212	Worksheet 116 pp. 111–112					
9	• Determine input values, output values or rules for patterns and relationships using tables • Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: – Verbally – In flow diagrams – In tables	1–3	343–344	215–216	Worksheet 117a p. 114					
10	**Equivalent forms** • Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: – By formulae – Number sentence	Ex. 31.1 1–4	345–347	216–218	Worksheet 118a p. 118					

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Solutions for All Mathematics Week 3											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	**REVISION: Functions and relationships graphs**	1, 2	348 349	219							
12	**FORMAL TASK 1: Investigation** **OR** **Assignment**	Act 30.3 1–10 or 1–3	340–341 or 341–342	212 or 213							
13	**Algebraic expressions p. 69** **Algebraic language** Recognise and interpret rules or relationships represented in symbolic form	1, 2, 3	350 351	221–222	Worksheet 120 p. 130						
14	Identify variables and constants in formulae and equations	Ex. 32.1 1–3	351–353	222	Worksheet 121 p. 126						
15	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation	Ex. 33.1 1–3	360	227	Worksheet 119 p. 122						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Solutions for All Mathematics Week 4											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
16	• Solve and complete number sentences by: – Inspection – Trial and improvement	Ex. 33.2 1–3	362	229	Worksheet 121 p. 126						
17	• Describe the numerical value of an expression by substitution	Ex. 33.3 1–3	363–364	229–230	Worksheet 123 p. 131 Worksheet 125 p. 133						
18	**REMEDIATE: Task 1** **Revision: Algebra**	1–5	365	230–231							
19	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity	Act. 37.1 1–4	414–415	263–264	Worksheet 137 p. 174						
20	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • Determine the probability of each possible outcome, using the definition of probability	Act. 37.2 1–7	416–417	264–265	Worksheet 139 p. 178						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Solutions for All Mathematics Week 5 *Select											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
21	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Act. 37.3 1–6	418–419	265	Worksheet 140 p. 180						
22	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) **FORMAL ASSESSMENT: Data Handling Investigation**	1, 2	366–367	234 310–314	Worksheet 126a p. 136						
23	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) • Distinguish between samples and populations	Act 34.1 1–4	367	234–236							
24	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Tally tables – Stem and leaf displays	Ex. 34.1 1–5 Ex. 34.3 1 Ex. 34.4 1a–b	371 375 376	238 240 241	Worksheet 126b p. 138 Worksheet 127a p. 140						
25	**Collect, organise and summarise data p. 71** • Group data into intervals • Summarise and distinguish between ungrouped numerical data by determining mean, median and mode • Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range)	Ex. 34.5 1–2 1, 3, 4, 5	382–383 385–387	242	Worksheet 127b p. 142 *Worksheet 128a–b p. 144						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Solutions for All Mathematics Week 6											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
26	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included) – Bar graphs and double bar graphs – Histograms with given intervals – Pie charts	Ex. 35.1 1–2 Ex. 35.2 1–2	389–390 393	248–249 251	Worksheet 129a pp. 147–148						
27	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included) – Histograms with given intervals **FORMAL ASSESSMENT: Data Handling Investigation**	Ex. 35.3 1–2	396	252–253 310–314							
28	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Ex. 36.1 1–2 Ex. 36.2 1–4	403 404 406 407	258 259	Worksheet 131a p. 156 Worksheet 131b p. 158 Worksheet 133 p. 164						
29	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data – Identifying sources of error and bias in the data – Choosing appropriate summary statistics for the data (mean, mode, median)	Ex. 36.3 1–2	409 410	260	Worksheet 134a p. 166 Worksheet 134b p. 168						
30	**FORMAL ASSESSMENT: Data Handling Investigation** **REVISION: TERM 4 TOPICS**	Unit 38	423–433	310–314 267–272							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Solutions for All Mathematics Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	End-of-year examination			Questions 315–319 Memo 320–323							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Solutions for All Mathematics Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

8. *Spot On Mathematics*

This section maps out how you should use your school Teacher's Guide and Learner's Book in a way that enables you to cover the curriculum sequentially, aligning with the CAPS, for well-paced and meaningful teaching.

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5. Page reference in your Teacher's Guide for the day's activities (TG page reference).
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Weekly reflection

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- Did the learners cope with the work set for the day? For instance, did they finish the classwork? Was their classwork done adequately? Did you assign the homework?
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- *What did the learners find difficult or easy to understand or do?*
- *What will you do to support or extend learners?*
- *Did you complete all the work set for the week?*
- *If not, how will you get back on track?*
- *What will you change next time? Why?*

The reflection should be based on the daily lessons you have taught each week. It will provide you with a record for the next time you implement the same lesson again, and also forms the basis for collegial conversations with your head of department and your peers.

Spot On Mathematics Week 1 *Select											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
1	**Integers p. 67** Orientation – Introduction to integers	Act. 20.1 1, 2, 4, 5	251	270	Worksheet 105 pp. 90–91						
2	**Counting, ordering and comparing integers p. 67** • Count forwards and backwards in integers for any interval • Recognise, order and compare integers	Act. 20.1 3, 6, 7	251	270	Worksheet 106 pp. 92–93						
3	**Calculations with integers p. 67** • Basic calculations with integers • Add and subtract integers • Integer calculations	Act. 20.2 1, 2 Act. 20.3 1, 4, 5	253 255	271 274	Worksheet 107 pp. 94–94 Worksheet 108 pp. 98–99						
4	**Properties of integers p. 67** Recognise and use commutative properties of addition and multiplication for integers	Act. 20.4a 1–3	256	275	Worksheet 111 pp. 100–101						
5	Recognise and use associative and distributive properties of addition and multiplication for integers	Act. 20.4b 1–2	257	275	*Worksheet 113 pp. 104–106						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Spot On Mathematics Week 2 *Select										
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**				
						Date completed				
6	**Solving problems p. 67** Solving problems in contexts involving integers	Act. 20.5 1, 3, 5, 7	258–259	276						
7	**FORMAL ASSESSMENT: Assignment**			272–273						
8	**Numeric and geometric patterns p. 68** **Investigate and extend patterns** • Investigate and extend numeric and geometric patterns looking for relationships between numbers and including patterns of learners, own creation and represented in tables • Represented in physical or diagram form not limited to sequences involving a constant ratio	Act. 21.1 1a, 3a, 3c Act. 21.2 1, 3	265 266	282 283	*Worksheet 114 p. 108 *Worksheet 115 p. 110					
9	• Describe and justify the general rules for observed relationships between numbers in own words • Determine input values, output values or rules for patterns and relationships using flow diagrams	Act. 21.2 2, 4	266	283	Worksheet 116 pp. 111–112					
10	**Functions and relationships p. 68** **Input and output values** Determine input values, output values or rules for patterns and relationships using flow diagrams	Act. 22.1 1a–c, 2a–c	270	288	Worksheet 117a p. 114					
10	Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: – In formula – In flow diagrams – In tables	Act. 22.2 1–4	272	289	Worksheet 117b pp. 108–109					

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Spot On Mathematics Week 3 *Select											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
11	**Equivalent forms** Determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented: • By formulae • Number sentence • Verbally • In flow diagrams	Act. 22.3 1–3	273	288	Worksheet 118a p. 118						
12	**REVISION: Functions and relationships graphs**	Act. 22 1–4	276	292							
13	**Remediate Assignment** *** Investigation**	1–4	260	277							
14	**Algebraic expressions p. 69** **Algebraic language** • Recognise and interpret rules or relationships represented in symbolic form • Identify variables and constants in formulae and equations	Act. 23.1 1, 2 Act. 23.2 1, 2	278 280	294 295	*Worksheet 120 p. 130						
15	**Algebraic equations p. 69** **Number sentences** • Write a number sentence to describe problem situations • Analyse and interpret a number sentence that describes a given situation	Act. 23.2 3, 5	280	296	Worksheet 119 p. 122						
Reflection											
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?		What will you change next time? Why?									
		HOD: **Date:**									

Spot On Mathematics Week 4 *Select										
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**				
						Date completed				
16	• Solve and complete number sentences by: – Inspection – Trial and improvement	Act. 23.3a 1a–e 2a–e 3a–c	282	295	Worksheet 121 p. 126					
17	• Solve and complete number sentences by: – Inspection – Trial and improvement	Act. 23.3b 1a–e 2a–e 3a–b	283	298						
17	• Describe the numerical value of an expression by substitution	Act. 23.4 1–5	284	299	Worksheet 123 p. 131 Worksheet 125 p. 133					
18	**REVISION: ALGEBRA**	Act. 22 1–4 Act. 23 1–5	276 286	292 301						
19	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity	Act. 27.1 1–2	321	332–333						
20	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • Determine the probability of each possible outcome, using the definition of probability	Act. 27.2 1–2	323	334						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why?
	HOD: **Date:**

Spot On Mathematics Week 5 *Select											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
21	**Probability p. 73** • Perform simple experiments where the possible outcomes are equally likely • List the possible outcomes based on the conditions of the activity • Determine the probability of each possible outcome, using the definition of probability	Act . 27 1 a–j	325	336	Worksheet 140 p. 180						
22	**Collect data p. 70** • Select appropriate sources for the collection of data (including peers, family, newspapers, books, magazines) **FORMAL ASSESSMENT: Investigation: The Data Cycle** • Distinguish between samples and populations	Act. 24.1a 1–3	289 316	304 328	Worksheet 126a p. 136						
23	**Collect data p. 70** • Distinguish between samples and populations **FORMAL ASSESSMENT: Investigation: The Data Cycle**	Act. 24.1b 1–2	290 316	305 328	Worksheet 126b p. 138						
24	**Organise and summarise data p. 70** • Organise (including grouping where appropriate) and record data using: – Tally tables – Stem and leaf displays	Act. 24.2 1–3	293	307	* Worksheet 127a p. 140						
25	**Collect, organise and summarise data p. 71** • Group data into intervals	Act. 24.3 1–2	294	308	Worksheet 127b p. 142						

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Spot On Mathematics Week 6											
Day	**CAPS concepts and skills**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
26	• Summarise and distinguish between ungrouped numerical data by determining mean, median and mode • Identify the largest and smallest scores in a data set and determine the difference between them in order to determine the spread of data (range)	Act. 24.4 1–4	296	309	Worksheet 128a p. 144 Worksheet 128b p. 146						
27	**Representing data p. 72** • Draw a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped included) – Bar graphs and double bar graphs – Histograms with given intervals – Pie charts	Act. 25.1 1–3 Act. 25.2 1–3	301 304	315–316 319–320	Worksheet 129a pp. 147–148						
28	**Interpret and analyse data p. 72** • Interpret – Critically read and interpret data represented in: – Words – Bar graphs and double bar graphs – Pie charts – Histograms • Analyse – Critically analyse data by answering questions related to: – Data categories, including data intervals – Data sources and contexts – Central tendencies (mean, mode, median) – Scales used on graphs	Act. 26.1 1–6 Act. 26.3 1–2	308–309 312	324 325	Worksheet 131a p. 156 Worksheet 131b p. 158 Worksheet 133 p. 164						
29	**Report data p. 72** • Summarise data in short paragraphs that include: – Drawing conclusions about the data – Making predictions based on the data – Identifying sources of error and bias in the data – Choosing appropriate summary statistics for the data (mean, mode, median)	Act. 26.4 1–3 Act. 26.2 1–2	314 310	327 325	Worksheet 134a p. 166 Worksheet 134b p. 168						
30	**FORMAL ASSESSMENT: Investigation: The Data Cycle** **REVISION: Data Handling**	Act. 24 1–4	316 298	328 311							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Spot On Mathematics Weeks 7 and 8 Revision and end-of-year examination – plan your work											
Day	**CAPS concepts and skills**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
						Date completed					
	End-of-year examination		337–342	345–350 Questions 351–356 Memo 357–361							

Reflection	
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete the work set for the week? If not, what will you do to get back on track?	What will you change next time? Why? **HOD:** **Date:**

Spot On Mathematics Week 9 Review of examination, remediation and learner corrections	
Reflect on the year	
Think about and make a note of: 1. Did you complete the curriculum according to the CAPS requirements? If not, why not and what could you do to cover all of the work next year?	4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?	5. What needs to be communicated to the teacher who will teach this group of learners next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?	6. What aspects of your teaching and assessment practices would you like to develop further next year? How will you go about this?
HOD:	**Date:**

D. ASSESSMENT RESOURCES

1. Assessment Term Plan

Formal assessment tasks are marked and formally recorded for promotion purposes. In Term 4 an **investigation, assignment and end-of-year examination** are specified by the CAPS (p. 154) for formal assessment. Table 1 below shows the formal assessment tasks that are provided in each set of LTSMs, and where they fit into the work for the term. In addition to these formal assessments, an exemplar examination is provided in this section for you to use instead of the examination in your chosen LTSM if you so wish. The exemplar examination has been carefully designed to ensure that the learners engage with **ANA-type questions** and it is in line with the CAPS policy requirements.

Notes:

1. Examinations in the Learner's Book shoud not be used for formal assessment as learners can prepare for them in advance.
2. You should check that the DBE has not made any changes to the formal assessment programme in the CAPS that are not shown here. If changes have been made, adjust this programme accordingly.

LTSM	Assignment	Investigation	Examination * Use for revision/practice, not for formal assessment
			a. Numbers, operations and relationships **b. Patterns, functions and algebra** **c. Space and shape (geometry)** **d. Measurement** **e. Data handling**
Clever Keeping Mathematics Simple	**Week 6** **Data Handling** LB p. 353 TG pp. 323–325	**Week 3** **Number Patterns** LB p. 356 TG pp. 326–327	TG Questions pp. 328–332 TG Memo pp. 333–336
Mathematics Today	**Week 3** **Number Patterns, Functions, Algebraic Expressions** LB p. 281 TG p. 111	**Week 6** **Data Handling** LB pp. 307–308 TG pp. 120–121	LB pp. 317–318 TG p. 125 TG Questions pp. 126–128 TG Memo p. 129

LTSM	Assignment	Investigation	Examination * Use for revision/practice, not for formal assessment
			a. Numbers, operations and relationships **b. Patterns, functions and algebra** **c. Space and shape (geometry)** **d. Measurement** **e. Data handling**
Oxford Headstart Mathematics	**Week 3** **Adding and subtracting integers** LB pp. 310–311 TG p. 252	**Week 5–6** **Data Cycle (Project)** **Task 1:** LB pp. 334–335 TG p. 272 **Task 2:** LB p. 341 TG p. 276 **Task 3:** LB p. 344 TG p. 278 **Task 4:** LB p. 353 TG p. 286 **Task 5:** LB p. 367 TG pp. 292–293	*LB pp. 376–383 TG pp. 300–303 TG Questions pp. 303–307 TG Memo pp. 308–311
Oxford Successful Mathematics	**Week 3** **Integers** LB p. 390 TG p. 271 OR **Week 4** LB p. 391 TG p. 272	**Week 5** **Probability** LB pp. 394–395 TG p. 275 OR **Week 6** **Data Cycle** LB pp. 392–393 TG pp. 273–274	LB pp. 399–402 TG pp. 276–277 TG Questions pp. 278–281 TG Memo pp. 282–284
Platinum Mathematics	**Week 3** **How rates affect a business** LB pp. 228–229 TG pp. 120–122	**Week 4** **Make an architectural model** LB pp. 242–243 TG pp. 131–132	LB pp. 274–277 TG Memo p. 150 TG Questions pp. 153–155 TG Memo p. 157

LTSM	Assignment	Investigation	Examination * Use for revision/practice, not for formal assessment
			a. Numbers, operations and relationships **b. Patterns, functions and algebra** **c. Space and shape (geometry)** **d. Measurement** **e. Data handling**
Premier Mathematics	**Week 4** **Various topics** LB pp. 157–164 TG pp. 115–120 (Do not include Data Handling)	Data Handling Investigation LB pp. 149–150 TG p. 113	TG Questions pp.124–132 TG Memo pp. 133–137
Solutions for All Mathematics	**Week 3** **Geometric Patterns** LB pp. 340–341 Act. 30.3 1–10 TG p. 212 OR LB pp. 341–342 1–3 TG pp. 341–342	**Week 5–6** **Data Handling Investigation** TG pp. 310–314	TG Questions pp. 315–319 TG Memo pp. 320–323
Spot On Mathematics	**Week 2** **Integers** TG pp. 272–273	**Week 5–6** **The Data Cycle** LB p. 316 TG p. 328	LB pp. 337–342 TG Memo pp. 345–350 TG Questions pp. 351–356 TG Memo pp. 357–361

2. Suggested Assessment Record

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																					

3. Grade 7 Mathematics Exemplar End-of-Year Examination

Surname:	
Name:	**Date:** _____ _____ **60**
Date of birth:	

INSTRUCTIONS TO LEARNERS:

1. Answer all questions in the spaces provided.
2. Write neatly and show all calculations.
3. No calculators or cell phones allowed.

DURATION: 90 MINUTES

SECTION A: MULTIPLE CHOICE **(5 marks)**

There are **five** multiple choice questions in Section A. 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 15 = _____

Ⓐ 105 B 110 C 115 D 120

1. Which list shows ALL the factors of 52?

   A. 1; 2; 3; 4; 13; 52 B. 1; 2; 4; 13; 26; 52

   C. 1; 2; 3; 13; 26; 52 D. 1; 2; 5; 52

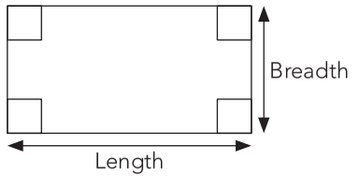
2. Which one is the formula for finding the perimeter of a rectangle?

   A: Perimeter = length x breadth

   B: Perimeter = length + breadth

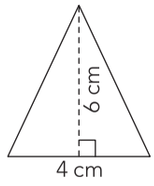
   C: Perimeter = 2 x length + breadth

   D: Perimeter = 2 x (length + breadth)



3. The area of this triangle is

   A: 24 cm^2 B: 12 cm^2 C: 10 cm^2 D: 6 cm^2



4. This table shows a relationship between and .
   Which of the equations below shows the same relationship?

p	1	2	3	4
t	6	8	10	12

   A: $t = 6p$ B: $t = 5p$ C: $t = 2p + 4$ D: $t = 2p + 6$

5. What is a parallelogram with at least one angle equal to 90° called?

   A: kite B: rhombus C: trapezium D: rectangle

SECTION B: ANSWER ALL THE QUESTIONS

NUMBERS AND OPERATIONS **(17 marks)**

6. Complete the table below (2)

Common fraction	Decimal fraction	Percentage
$\frac{23}{100}$	a) _____	23%
$\frac{6}{10}$	0,6	b) _____

7. What is the place value of the underlined digit in 534,**8**6? _____ (1)

8. Write down the integer which is: (2)

a) 7 greater than – 3

_____

b) 8 less than 3

_____

9. Calculate

a) 6,5–2,34 (2) b) 3,7 x 1,4 (3)

10. Calculate

a) –18–13 (1) b) 8 + (–27) (1)

11. Find the value △ of in the following equations:

a) $24 = 3 \times \triangle$ (1)

b) $14 + \triangle = 16 - 8$ (2)

12. Simplify the following and show all your steps of working. Do not use a calculator.

$2^3 - 92$ (1)

PATTERNS, FUNCTIONS AND ALGEBRA **(13 marks)**

13. Find the rule that describes the relationship between the numbers in the top row and the bottom row. (2)

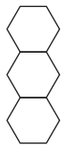
Input number	1	2	3	4	10
Output number	4	7	10	13	31

Rule: _____

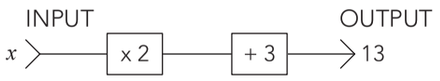
14. Shapes 1, 2 and 3 are shown in the table below.

a) Draw Shape 4 in the space provided. (2)

b) Fill in the number of sides for Shape 4. (1)

SHAPE 1	**SHAPE 2**	**SHAPE 3**	**SHAPE 4**
			
6 sides	11 sides	16 sides	

15. Write the values in the following flow diagram as an equation. (2)

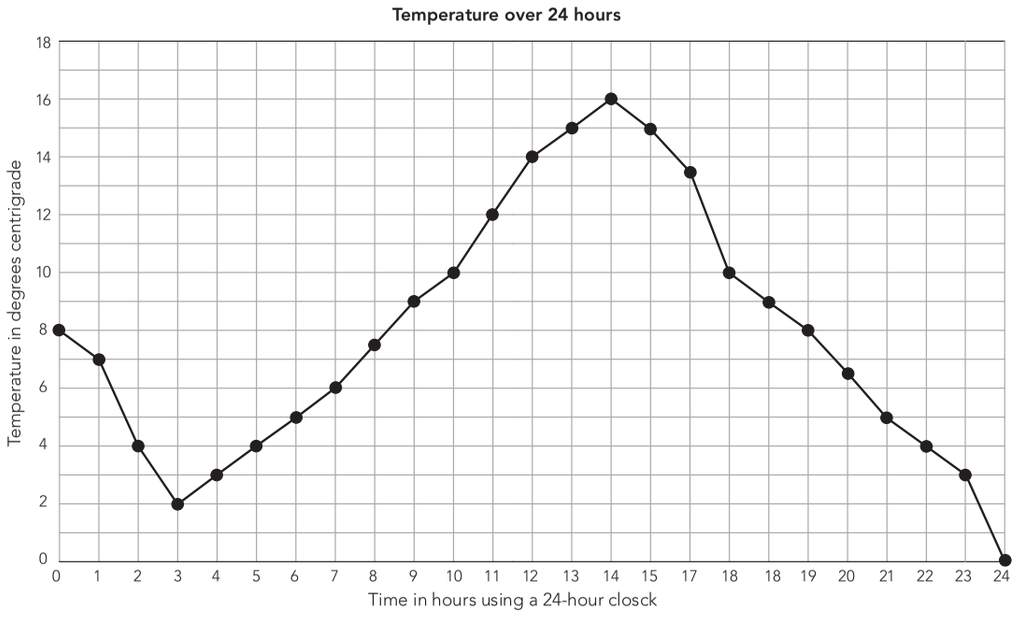


The equation is:

_____

_____

16. The following graph shows the change in temperature during a day in Vryheid in KwaZulu-Natal.



a) What was the highest temperature on the day? (2)

_____

b) At what time(s) was the temperature 10 °C (10 degrees Centigrade)? (2)

_____

c) Was this a winter day or a summer day? Give a reason for your answer. (2)

_____

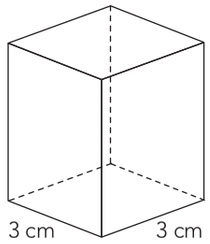
_____

MEASUREMENT **(4 marks)**

17. The volume of this square-based prism is 54 cm^3. (2)

The sides of the square base are both 3 cm.

Calculate the length of the third side of the prism.



_____

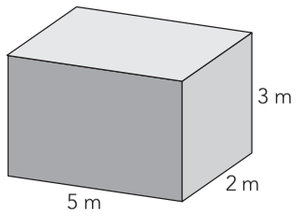
_____

_____

_____

_____

18 How many kilolitres of water are there in a tank that is 5 m long, 2 m wide and 3 m high? (2)



_____

_____

_____

_____

_____

_____

PROBABILITY **(6 marks)**

19. John rolls a regular dice once.

a) What is the probability of getting a 6 when rolling this dice? (2)

_____

_____

_____

b) What is the probability (WRITTEN AS A FRACTION IN SIMPLEST FORM) of getting A FACTOR OF 6 when rolling this dice? (2)

_____

_____

_____

c) What is the probability (WRITTEN AS A PERCENTAGE) of getting AN ODD NUMBER when rolling this dice? (2)

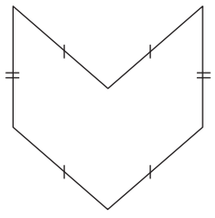
_____

_____

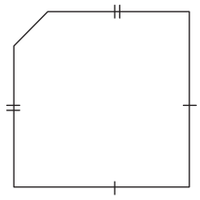
_____

SHAPE AND SPACE **(15 marks)**

20. Study the two polygons and then answer the questions.



POLYGON A



POLYGON B

a) What type of polygon is Polygon A? _____ (1)

b) What type of polygon is Polygon B? _____ (1)

c) Is Polygon A a regular or irregular polygon? _____ (1)

d) Is Polygon B a regular or irregular polygon? _____ (1)

e) Use a ruler to draw in all line(s) of symmetry on each polygon. _____ (2)

21. Give the names of the following geometric shapes:

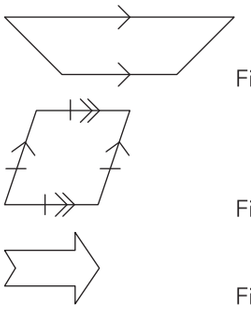
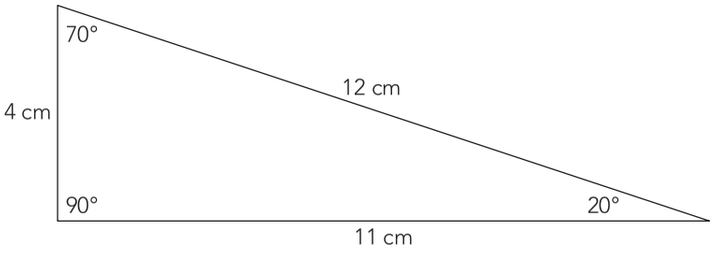


Fig A a) _____ (1)

Fig B b) _____ (1)

Fig C c) _____ (1)

22. Study the following triangle:



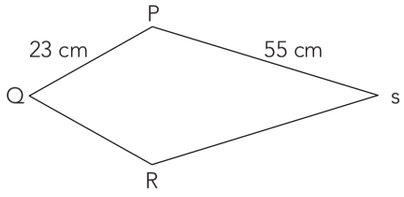
a) Name the triangle according to the sizes of its angles (1)

_____

b) Name the triangle according to the lengths of its sides (1)

_____

23. PQRS is a KITE. PQ = 23 mm and PS = 55 mm.



a) What is the length of QR?

QR = _____ (1)

b) What is the length of RS?

RS = _____ (1)

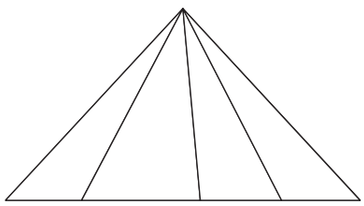
24. How many triangles are in the figure? (2)

_____

_____

_____

_____



_____

_____

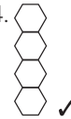
TOTAL: 60 MARKS

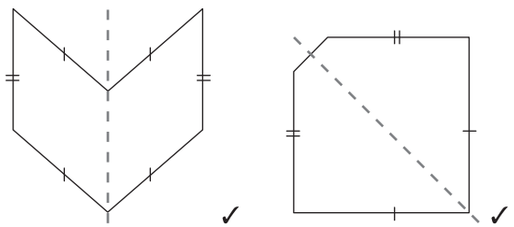
4. Grade 7 Mathematics Exemplar End-of-Year Examination: Memorandum

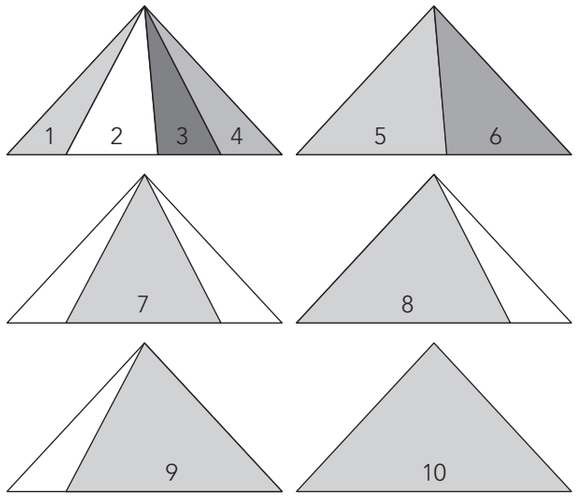
Note: The last column in the memorandum shows the cognitive level for each question in the test. The levels are:

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. 157).	

Question	Marks	Cognitive level
SECTION A:		
MULTIPLE CHOICE		
1. B ✓	(1)	**K**
2. D ✓	(1)	**K**
3. B ✓	(1)	**RP**
4. C ✓	(1)	**CP**
5. D ✓	(1)	**PS**
SECTION B:		
NUMBER AND OPERATIONS		
6. <table><tr><th>Common fraction</th><th>Decimal fraction</th><th>Percentage</th></tr><tr><td>$\frac{23}{100}$</td><td>a) 0,23 ✓</td><td>23%</td></tr><tr><td>$\frac{6}{10}$</td><td>0,6</td><td>b) 60% ✓</td></tr></table>	(1) (1)	**K** **K**
7. 8 tenths or 8 t or 0,8 ✓	(1)	**K**
8. a) 4 ✓ b) –5 ✓	(1) (1)	**K** **K**

Question	Marks	Cognitive level
9. a) 6,50 – 2,35 ✓ correct method 4,15 ✓correct answer	(2)	**RP**
b) 37 x 14 148 + 370 ✓ correct multiplication 518 ✓ correct answer So 3,7 x 1,4 = 5,18 ✓ correct answer OR 37 x 14 = 37 x (10 + 4) = 370 + 148 ✓ correct multiplication = 518 ✓ correct answer So 3,7 x 1,4 = 5,18 ✓ correct answer	(3)	**CP**
10. a) –18–13 = –31 ✓ b) 8 + (–27) = 8–27 = –19 ✓	(1) (1)	**K** **K**
11. a) △ = 8 ✓ b) 14 + △ = 16–8 14 + △ = 8 ✓ ∴ △ = –6 ✓	(1) (2)	**RP** **CP**
12. 2^3–92 = 8–81 ✓ = –73 ✓	(2)	**RP**
PATTERN, FUNCTION AND ALGEBRA		
13. Rule: multiply by 3 and add 1 ✓✓ (for getting the rule correct) OR Output number = (input number x 3) + 1 ✓✓	(2)	**RP**
14.  ✓✓ for drawing Shape 4 correctly b) 21 sides ✓	(2) (1)	**K**
15. x x 2 + 3 = 13 ✓ for getting the left hand side correct ✓ for adding an equals sign	(2)	**RP**

Question	Marks	Cognitive level
16. a) The highest temperature is 16 degrees Centigrade. ✓ for 16 ✓ for the units (degrees Centigrade or °C) b) The temperature is 10 °C at 10:00 ✓ and 17:00 ✓ c) This was a winter day. ✓ The maximum temperature is 16 °C which is too cold for it to be a summer day. ✓		
MEASUREMENT		
17. 3 cm x 3 cm x 3rd side = 54 cm^3 The length of the 3rd side cm = 6 cm ✓✓	(2)	**RP**
18. Volume of tank = 5 m x 2 m x 3 m = 30 m^3 ✓ Capacity = 30 kl ✓	(2)	**RP**
PROBABILITY		
19. a) Probability = $\frac{1}{6}$ ✓ ✓	(2)	**K**
b) Factors of 6 are 1; 2; 3 and 6 Probability = $\frac{4}{6}$ ✓ = $\frac{2}{3}$ ✓	(2)	**RP**
c) Odd numbers are 1; 3 and 5 Probability = $\frac{3}{6}$ ✓ = 50% ✓	(2)	**RP**
SPACE AND SHAPE		
20. a) Hexagon ✓	(1)	**RP**
b) Pentagon ✓	(1)	**RP**
c) Irregular ✓	(1)	**RP**
d) Irregular ✓	(1)	**RP**
e)  ✓ ✓	(2)	**CP**

Question	Marks	Cognitive level
21. a) Figure A is a trapezium ✓	(1)	**RP**
b) Figure B is a rhombus ✓	(1)	**RP**
c) Figure C is a octagon ✓	(1)	**RP**
22. a) Right angled triangle ✓	(1)	**CP**
b) Scalene triangle ✓	(1)	**CP**
23. a) QR = 23 mm ✓	(1)	**CP**
b) RS = 55 mm ✓	(1)	**CP**
24.  There are 4 single triangles There are 3 triangles made up of 2 triangles There are 2 triangles made up of 3 triangles There is 1 triangle made up of 4 triangles Altogether there are 4 + 3 + 2 + 1 = 10 triangles ✓✓	(2)	**PS**
		TOTAL: 60

5. Analysis of Cognitive Levels

The CAPS (p. 157) specifies the weighting of the cognitive levels for tests and examinations. The following table shows these weightings for Senior Phase Mathematics.

Table 1: WEIGHTING OF THE COGNITIVE LEVELS AS SPECIFIED BY THE CAPS FOR SENIOR PHASE MATHEMATICS

LEVELS	VERBS	SAMPLE TASKS	CAPS WEIGHTING
KNOWLEDGE Learn terms, facts, methods, procedures, concepts	Draw, Recognise, Count, Group, Reproduce, Memorise, State, Tabulate, Identify, Point, Follow directions, Arrange	1. Can you identify the different place values in the metric system? 2. State the mode, mean, median, and range from your set of data. 3. How do you reproduce a circle *using a compass?* 4. Arrange the following in descending order.	**25 %**
COMPREHENSION Understand uses and implications of terms, facts, methods, procedures, concepts	Change, Classify, Convert, Estimate, Interpret, Measure, Put in order, Show, Suggest, Express in other terms	1. Classify polygons by regularity, concavity, and line symmetry. 2. Explain how to convert between fractions, decimals, and percentages. 3. What is your interpretation of the data expressed on the graph?	
ROUTINE PROCEDURES APPLICATION Practice theory, solve problems, use information in the new situations	Calculate, Compute, Construct, Demonstrate, Derive, Graph, Manipulate, Operate, Practice, Prove, Solve, Find	1. How do you calculate the percentage of a given whole? 2. Solve for area of a rectangle by using **A= l x w** 3. What information do you consider when graphing data derived from a survey? 4. Find the value of	**45%**
COMPLEX PROCEDURES ANALYSIS Analyse structure, recognise assumptions, break down material into parts	Break down, Deduce, Diagram, Distinguish, Formulate, Group, Order, Separate, Simplify, Sort	1. What methods can be used to compare and order fractions? 2. Analyse the relationship between variables on a graph. 3. What factors do you consider when formulating a plan for problem solving?	**20%**
SYNTHESIS Put information together into a new and creative way	Construct, Create, Derive, Develop, Document, Generate, Integrate, Plan, Predict, Prepare, Propose, Specify, Tell	1. Describe some patterns that you recognised in the construction of Pascal's Triangle. 2. What kind of table can you create that represents change in temperature? 3. What prediction can you make from this graph?	
PROBLEM SOLVING EVALUATION Set standards, judge with purpose, accept or reject on basis of criteria	Appraise, Choose, Compare, Conclude, Decide, Describe, Evaluate, Justify, Measure, Validate	1. Evaluate the expression after changing the order of operations. 2. Describe how to solve a problem using the 4-step method. 3. Justify your reason for choosing the strategy selected.	**10%**

Table 2 shows the weighting of marks in the exemplar end-of-year examination and compliance with the CAPS requirements.

Table 2: WEIGHTING OF MARKS ACROSS THE CONTENT AREAS IN THE EXEMPLAR END-OF-YEAR EXAMINATION

	Number and Operations	Pattern, Functions & Algebra	Measurement	Space and Shape	Probability	Knowledge	Routine Procedures	Complex Procedures	Problem Solving
1	1					1			
2			1			1			
3			1				1		
4		1						1	
5				1					1
6a	1					1			
6b	1					1			
7	1					1			
8a	1					1			
8b	1					1			
9a	2						2		
9b	3							3	
10a	1					1			
10b	1					1			
11a	1						1		
11b	2							2	
12	2						2		
13		2					2		
14a		2				2			
14b		1				1			
15		2					2		
16a		2					2		
16b		2					2		
16c		2							2
17			2				2		
18			2				2		
19a					2	2			
19b					2		2		
19c					2		2		
20a				1			1		
20b				1			1		
20c				1			1		
20d				1			1		
20e				2				2	
21a				1			1		
21b				1			1		
21c				1			1		
22a				1				1	
22b				1				1	
23a				1				1	
23b				1				1	
24				2					2
Totals	18	14	6	16	6	14	29	12	5
CAPS requirements	**18**	**15**	**6**	**15**	**6**	**15**	**27**	**12**	**6**