GRADE 8

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 8 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 to keep pace with the time requirements and the content coverage of the CAPS. The tracker provides a programme of work that should be covered each day of the term and a space for reflection on the 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 (HOD) and peers to find the best possible way to make up time and ensure that all the work for the term is completed.

In addition, the tracker encourages you to reflect on the parts of your lessons that are effective, and the areas where content coverage could be supplemented or strengthened. These reflections can be shared with colleagues. In this way, the tracker encourages 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 8 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 refer to the curriculum document directly should you wish to do so.

Note: The KwaZulu-Natal teaching plan for Term 4 has omitted three topics which are in the CAPS sequence for Term 4 – Functions and Relationships; Equations; and Probability. Functions and Relationships as well as Equations were covered in depth in previous terms. Probability was added into Term 3.

4. Links to the approved sets of Learner's Books and Teacher's Guides

The tracker coordinates the CAPS requirements with the content set out in the eight approved sets of Learner's Books and Teacher's Guides. There is a tracker for each of these sets on the list of approved books on the national catalogue and also one for the *Sasol Inzalo Mathematics Book 2* for this grade. 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 different ways – but you must be sure to cover the content systematically. For each set of Learning and Teaching Support Materials (LTSMs) in the tracker, 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 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. The activity is marked ***Select** in these cases. In other instances the Learner's Books do not have adequate activities for learners to consolidate work done on a topic, in which case we recommend that you use the relevant activities in the DBE workbooks, the Sasol Inzalo book or additional work from other sources. The activity is marked **#Supplement** in these cases.

Each tracker is based on the latest print editions of the eight approved sets of LTSMs. It is important to note that page numbers may differ slightly from other print runs of the same Learner's 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 differ by a page or two from those given in the tracker.

5. Links to the DBE workbooks and to the Grade 8 *Sasol Inzalo Mathematics Book 2*

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

worksheets referred to in this tracker are from the 2017 edition of the DBE workbook. They change very little from year to year, but should you use a different edition of the workbook, you should check that the worksheets referred to in the tracker are still relevant for the content to which they are linked.

In addition, the tracker for each of the eight approved LTSMs also gives links to relevant pages in the Grade 8 *Sasol Inzalo Mathematics Book 2* to help you find relevant resources there. The page numbers referred to are the same for both the Learner's Book and the Teacher's Guide.

6. Managing time allocated in the tracker

The CAPS prescribes four and a half hours of Mathematics per week in Grade 8. The tracker provides a suggested plan for five lessons a week, with the first four lessons expected to be an hour long, and the fifth 30 minutes making up the four and a half hours. As each school organises its timetable differently, you may have to divide the sessions in the programme slightly differently to accommodate the length of the lessons at your school in a way that ensures that the full four and a half hours of time for Mathematics is used constructively.

It is important to note that a total of 45 hours is given in the CAPS to the topics for Term 4. This includes nine and a half hours for assessment and revision. However, this term has only nine weeks, four of which have been put aside for a week of revision followed by the formal examination period at the end of the term. So the tracker has been adjusted, with the formal teaching programme organised to be completed in five weeks. Should you use this tracker in a fourth term of a different length, or with more less time set aside for the end-of-year examinations, you will need to adjust the programme accordingly. It is important to check this at the start of the term.

7. Sequence adherence

The content in the programme of lessons 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 to the lesson schedule – 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 homework reflection to save time, until you are back on track for curriculum coverage.

8. Links to assessment

In Term 4 of Grade 8, the formal assessment programme specified in CAPS requires, as a minimum, that learners complete one assignment and one investigation. The approved Learner's Books and Teacher's Guides provide exemplar assignments and investigations which you can use with your class. The assessment programme provided in Section C of this document, shows when in the programme of work they 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. If the LTSMs that you are using offer more than one option for an assignment or an investigation, then an option has been chosen for you and included in the tracker, but you can, of course, choose a different option if you prefer.

It is important to note that the DBE makes changes to the CAPS assessment requirements from time to time. When such changes are made, you should adjust the assessment programme provided here to accord with them.

We have provided an end-of-year examination and marking memorandum, which you could use instead of the examination in the LTSMs used by your class. If you think that this examination is too long, you may divide it into two examinations. For this purpose, the examination has been sub-divided: Section A (one and a half hours) and Section B (one hour). There is also an analysis of the examination according to the weightings of cognitive levels specified in CAPS. You will find these resources in Section E of this document.

Where the end-of-year 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. Where this is the case, you will need to use an examination in a Teacher's Guide from a different set of LTSMs, or set your own from a range of sources and the Sasol Inzalo Learner's Book, (if you are not using them as your primary guide in class), or make use of the examination at the end of this booklet, as mentioned above.

A suggested mark 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 by using your class list. In addition to the prescribed formal assessment, you should include some informal assessments to help you and the learners gain insight into how they are progressing. Although marks do not have to be recorded for such assessments, you might like to record some marks that are awarded or key comments for your own interest.

9. Resources

Occasionally, the tracker suggests resources that you could use for certain lessons. You are free to use any resources to enrich your Mathematics teaching.

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 and 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 and your Mathematics colleagues agree on a day that you can get together to plan your lessons as a group and submit your plans to your HOD 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. The time allocation per term is given in the CAPS document on page 74. This indicates how many hours are required to be spent on each topic.
2. **Prepare resources:** The resources needed for each lesson are listed at the start of each CAPS topic or for each lesson, depending on the Learner's Book. 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.
    - Use newspapers and magazines to cut out pictures that could be used in your teaching. If you have access to the internet, use Google to search for and print out pictures that you may need to use as illustrations in your lessons.
    - Make sure you have chalk or marking pens so that you can use your chalk board or whiteboard as needed. If you have digital resources, check that they are in working order.
    - Check the assessment programme so that you can prepare any resources such as test papers, assignments or investigations needed for formal assessment so that learners can settle down and begin working promptly.
3. **Prepare the content:** Think carefully about what it is that you will teach your learners in this lesson. Think about the prior knowledge of the content that learners should have learned in earlier grades that will be built on in this lesson. You should refer to the CAPS content and skills clarification column for further guidance while you prepare. Consider any common misconceptions, and how you will address these.
    - *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 enrichment and remediation activities that you might want to use.
    - *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 (for a one-hour lesson) – but you might find that you need to work differently in some lessons, such as when a test is being written or when the allocated lesson time is only half an hour.
   - **Homework review/reflection (15 minutes):** This is the first activity of the lesson. We recommend that you take about 15 minutes 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.
   - **Lesson content – concept development (15 minutes):** This is the second activity of the lesson. We recommend that you actively teach your class for 15 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 would also be a useful reference should you need further examples or ideas to enrich your explanations. You should elaborate on these explanations and provide additional examples if necessary.
   - **Classwork activity (25 minutes):** This is the third 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 maths and problem solving skills. It is important that you *prepare yourself for the classwork activity* – you need to assist learners as they do the classwork. You might also need to select particular questions from each activity for the classwork so that learners can manage the selection – the **exercises given in the various 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 learners 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.) 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 who need additional support or extension by paying attention to how well 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 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.
   - **Allocate homework (5 minutes):** This is the fourth 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 maths that you have taught them in class. It also promotes learner writing, development of mathematical knowledge and the

development of regular study habits. Encourage your learners to show their parent(s) or their guardian(s) the work they have done.

5. **After each lesson, reflect on how it went:** Each week there is a reminder for 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 discussions with your HOD and peers.

C. PLANNING FOR ASSESSMENT

1. Formal assessment

Table 1 below shows the minimum requirements for formal assessment in Grade 8 given by the CAPS (p. 155).

Table 1: NUMBER OF ASSESSMENT TASKS AND WEIGHTING

	FORMS OF ASSESSMENT	Minimum requirements per term				Number of tasks per year	Weighting
		Term 1	Term 2	Term 3	Term 4		
School-based assessment	Test	1	1	1		3	40%
	Examination		1			1	
	Assignment	1		1	1	3	
	Investigation		1		1	2	
	Project			1		1	
	Total	**2**	**3**	**3**	**2**	**10***	
End-of-year examination						1	**60%**

*To be completed before the end-of-year examination

Table 2 gives an overview of how the minimum requirements of the formal assessment programme for Term 4, as specified in the CAPS, fit into the weekly planned lessons in the tracker and where examples can be found in the LTSMs. Please note that the official requirements for formal assessment change from time to time. It is important that you adjust this programme to comply with changes that might not be reflected here.

The exemplar examination (in Section E) will be written towards the end of the term during the formal examination period. The last column in Table 2 gives the page references of end-of-year examinations in the LTSMs. Should you wish to use one of these examinations (other than one in the Learner's Book) instead of the exemplar, you may of course do so. If you set a formal assessment for a different time, you will need to adjust the programme in the tracker accordingly.

Table 2: FORMAL ASSESSMENT PROGRAMME FOR TERM 4

LTSM	Assignment	Investigation	End-of-year examination
Premier Mathematics	**Week 4** Day 18 LB p. 218 TG pp. 143–145	**Week 3** Day 12 & 13 LB pp. 247–248 TG p. 166	Weeks 7–9 TG pp. 170–174 Memo pp. 174–176
Spot On Mathematics	**Week 5** Day 22 LB p. 314 TG pp. 356–357	**Week 2** Day 6 & 7 LB p. 320 TG p. 363	Weeks 7–9 **Paper 1** TG pp. 382–386 Memo pp. 387–390 **Paper 2** TG pp. 391–393 Memo pp. 394–395
Platinum Mathematics	**Week 2** Day 6 LB pp. 252–253 TG p. 128	**Week 4 & 5** Day 20 & 21 LB pp. 290–291 TG p. 149	Weeks 7–9 TG pp. 156–158 Memo pp. 159–160
Oxford Headstart Mathematics	**Week 2** Day 7 LB p. 338 TG p. 319	**Week 4** Day 20 LB pp. 364–366 TG pp. 341–342	Weeks 7–9 **Paper 1** TG pp. 370–373 Memo pp. 373–377 **Paper 2** TG pp. 377–379 Memo pp. 379–380 **Paper 3** TG pp. 381–386 Memo pp. 386–390

Table 2: FORMAL ASSESSMENT PROGRAMME FOR TERM 4			
LTSM	**Assignment**	**Investigation**	**End-of-year examination**
Oxford Successful Mathematics	**Week 3** Day 15 LB p. 444 TG p. 367	**Week 5** Day 21 LB pp. 399–400 TG pp. 310–311	Weeks 7–9 TG pp. 374–378 Memo pp. 379–384
Clever: Keeping Maths Simple	**Week 4** Day 16 LB pp. 391–392 TG pp. 356–357	**Week 2** Day 8 LB p. 390 TG pp. 354–355	Weeks 7–9 TG pp. 359–364 Memo pp. 365–371
Solutions for All Mathematics	**Week 3** Day 15 TG pp. 375–379	**Week 5** Day 22 TG pp. 380–383	Weeks 7–9 TG pp. 384–387 Memo pp. 388–391
Mathematics Today	**Week 3** Day 14 LB pp. 281–282 TG p. 125	**Week 5** Day 22 LB p. 304 TG p. 134	Weeks 7–9 TG pp. 138–139 Memo pp. 140–141
Sasol Inzalo Mathematics Book 2	**Week 4** Day 18 (*source from another set of LTSMs*)	**Week 3** Day 14 & 15 (*source from another set of LTSMs*)	Weeks 7–9 No exam papers provided

2. Informal assessment

In addition to the prescribed formal assessment, you should include some informal assessments to help you and the learners gain insight into how they are progressing. Much informal assessment is integrated into teaching and learning – in class discussions, responses to questions, and as classwork is done and homework reviewed. It is also a good idea, however, to set some written informal written assessment tasks that simulate more formal assessment activities, such as examination or test questions, as they allow learners to develop important examination techniques such as keeping to time limits and first answering what they know best.

Each set of LTSMs provides revision exercises as well as remediation and extension exercises, all of which may be used for informal assessment. Some examples are given below:

- *Premier Mathematics* provides revision exercises of the units at the end of the term with full solutions provided in the Teacher's Guide.
- *Spot On Mathematics* provides a revision activity at the end of each module with full solutions in the Teacher's Guide.
- *Platinum Mathematics* provides comprehensive revision exercises at the end of each topic in the Learner's Book with full solutions in the Teacher's Guide. In addition there are Basic Target and Advanced Target worksheets at the back of the Teacher's Guide. An Extension and Remediation Worksheet Book is also given.
- *Oxford Headstart Mathematics* gives revision exercises at the end of each chapter with solutions in the Teacher's Guide.
- *Oxford Successful Mathematics* has a summary and a consolidation exercise at the end of each chapter in the Learner's Book with full solutions in the Teacher's Guide.
- *Solutions for All Mathematics* has a summary and a revision exercise (*Check what you know*) at the end of each unit. The final unit of each term comprises revision of all the units done during the term. Comprehensive solutions are provided in the Teacher's Guide. Enrichment is provided occasionally and is indicated by an enrichment icon.
- *Mathematics Today* provides a revision test at the end of each topic with full solutions in the Teacher's Guide. For each topic, remedial support and extension exercises are provided in the Teacher's Guide.

The trackers do not specify when such informal assessments should be done as you will use your professional judgement in this regard. Although marks do not have to be recorded for informal assessment, you might like to keep a record of these in order to monitor your learners' progress.

D. TRACKERS FOR EACH SET OF APPROVED LTSMs

Premier Mathematics

This section maps out how you should use the Premier Mathematics Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page numbers are referenced). These are the same for both the Learner's Book and the Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Premier Mathematics Week 1												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
1	**Geometry of 3-D objects:** Classify 3-D objects: Describe, name and compare the 5 Platonic solids	116	1 (no. 1–2)	237–239	155	No. 127–128 (pp. 168–171)	No. 1–5 (pp. 222–224)					
2	Classify 3-D objects: Describe, name and compare the 5 Platonic solids cont.	116	1 (no. 3–4)	239	155–156	No. 129–131 (pp. 172–177)	No. 1–2 (pp. 225–228)					
3	Use and construct nets to make models of geometric solids	116	2 (no. 1–2)	239–241	156	No. 132a–132b (pp. 178–181)	No. 1–9 (pp. 205–214)					
4	Build 3-D models using nets to make models of geometric solids	116	2 (no. 3)	241	157	No. 133a–133b (pp. 182–185)	No. 1–5 (pp. 195–198) No. 1–9 (pp. 199–204)					
5	Construct more nets and build 3-D models (use *DBE workbook* or *Sasol Inzalo book*)	116				No. 133c–134 (pp. 182–191)	No. 1–3 (pp. 215–216) No. 1–4 (pp. 216–217) No. 1–6 (pp. 218–221)					

Notes: 1. Refer to Day 1: Models of Platonic solids should be provided for these lessons.
2. Refer to Day 3: Photocopied nets TG pp. 158–162.
3. Refer to Day 4: Learners need to be equipped with sticky tape, scissors and sheets of A4 card.
4. Refer to Day 5: Explain the investigation – collection of data.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Premier Mathematics Week 2													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
6	**Graphs:** Analyse and interpret global graphs of problem situations	114	1 (no. 1–3)	201–205	135	No. 114a (pp. 134–135)	No. 1–5 (pp. 159–165)						
7	Analyse and interpret global graphs of problem situations	114	1 (no. 4–6)	205–206	135–136	No. 114b (pp. 136–137)	No. 1–4 (pp. 165–166)						
8	Analyse and interpret global graphs of problem situations (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 115–116 (pp. 138–141)	No. 1–2 (pp. 167–168) No. 1–2 (pp. 168–169)						
9	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane	114	2	207–208	136	No. 112–113 (pp. 130–133)	No. 1–6 (pp. 171–174)						
10	Determine the scale of the axes for global graphs, plot points and draw graphs	114	3	208–210	137–138	No. 119 (pp. 148–149)	No. 1–2 (pp. 169–171)						

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 all the work set for the week? If not, how will you get back on track?

What will you change next time? Why?

HOD: **Date:**

Premier Mathematics Week 3												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
11	Use tables of ordered pairs to plot or identify points on the Cartesian Plane	114	4	210–212	138–139	No. 117a–117b (pp. 142–145)						
12	Formal assessment: Investigation		Inv.	247–248	166							
13	Formal assessment: Investigation cont.		Inv.	247–248	166							
14	Draw graphs on the Cartesian Plane	114	5 (no. 1–3)	213–216	139–141	No. 118 (pp. 146–147)	No. 1–2 (pp. 169–171)					
15	Draw graphs on the Cartesian Plane	114	5 (no. 4–6)	216–217	141–142	No. 120 (pp. 150–151)						

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 all the work set for the week? If not, how will you get back on track?

What will you change next time? Why?

HOD: **Date:**

Premier Mathematics Week 4													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
16	**Transformation geometry:** Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on reflecting a point in the Y-axis or X-axis	115	1	219–221	146–147	No. 121 (pp. 152–153)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179)						
17	Translate a point within and across quadrants	115	2	222–224	147–148		No. 1–2 (p. 180)						
18	**Formal assessment: Assignment**		Ass.	218	143–145								
19	Recognise, describe and perform transformations with triangles on a co-ordinate plane, focusing on the co-ordinates of the vertices when reflecting a triangle in the Y-axis or X-axis	115	3	224–227	148–149	No. 122 (pp. 154–155)	No. 1–2 (pp. 182–183) No. 1–3 (pp. 183–184)						
20	Translate a triangle within and across quadrants	115	4	227–228	149–151	No. 124a–124b (pp. 158–161)	No. 1–3 (p. 181)						
Note: Refer to Day 16: For Transformation geometry – squared paper is useful.													
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 all the work set for the week? If not, how will you get back on track?							What will you change next time? Why?						
							HOD: **Date:**						

Premier Mathematics Week 5												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
21	Rotate a triangle around the origin	115	5	228–231	151–152	No. 123 (pp. 156–157)	No. 1–4 (pp. 185–188)					
22	Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures	115	6	231–236	152–154	No. 125a–126 (pp. 162–167)	No. 1–5 (pp. 188–192) No. 1–5 (p. 193) No. 1–7 (p. 194)					
23	Revise for examinations											
24	Revise for examinations											
25	Revise for examinations											
Note: Refer to Day 21: A protractor is required for this lesson.												

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Premier Mathematics Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Premier Mathematics Weeks 7–9: Revision followed by examination period

Spot On Mathematics

This section maps out how you should use the Spot On Mathematics Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page numbers are referenced). These are the same for both the Learner's Book and the Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Spot On Mathematics Week 1 *Select													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
1	**Geometry of 3-D objects:** Classify 3-D objects: Describe, name and compare the 5 Platonic solids	116	25.1	316–317	359–361	No. 127–128 (pp. 168–171)	No. 1–5 (pp. 222–224)						
2	Classify 3-D objects: Describe, name and compare the 5 Platonic solids (use *DBE workbook* or *Sasol Inzalo book*)	116				No. 129–131* (pp. 172–177)	No. 1–2 (pp. 225–228)						
3	Use and construct nets to make models of geometric solids	116	25.2	318–319	362	No. 132a–132b (pp. 178–181)	No. 1–9 (pp. 205–214)						
4	Revise polyhedra (use *Sasol Inzalo book*)	116				No. 133a–133b (pp. 182–185)	No. 1–5 (pp. 195–198) No. 1–9 (pp. 199–204)						
5	Construct more nets and build 3-D models (use *DBE workbook* or *Sasol Inzalo book*)	116				No. 133c–134* (pp. 182–191)	No. 1–3 (pp. 215–216) No. 1–4 (pp. 216–217) No. 1–6 (pp. 218–221)						

Notes: 1. Refer to Day 1: Models of Platonic solids should be provided.
2. Refer to Day 3: Learners require: Photocopied nets; A4 paper, scissors, glue, protractor.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Spot On Mathematics Week 2												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
6	**Formal assessment: Investigation**		Inv.	320	363							
7	**Formal assessment: Investigation** cont.		Inv.	320	363							
8	**Graphs:** Analyse and interpret global graphs of problem situations	114	23.1	289–293	331–333	No. 114a (pp. 134–135)	No. 1–5 (pp. 159–165)					
9	Draw, analyse and interpret global graphs of problem situations	114	23.2	294–295	334–336	No. 114b (pp. 136–137)	No. 1–4 (pp. 165–166)					
10	Analyse and interpret global graphs of problem situations (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 115–116 (pp. 138–141)	No. 1–2 (pp. 167–168) No. 1–2 (pp. 168–169)					

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Spot On Mathematics Week 3												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
11	Revise the Cartesian Plane (use *DBE workbook*)	114				No. 117a–117b (pp. 142–145)						
12	The Cartesian Plane: Ordered pairs (use *DBE workbook*)	114				No. 118–119 (pp. 146–149)						
13	Use points and tables of ordered pairs to draw graphs on the Cartesian Plane	114	23.3	296–297	337–339	No. 112–113 (pp. 130–133)						
14	Draw graphs on the Cartesian Plane (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 120 (pp. 150–151)	No. 1–2 (pp. 169–171)					
15	Revise graphs	114	Rev.	299	341–342		No. 1–6 (pp. 171–174)					

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Spot On Mathematics Week 4												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
16	**Transformation geometry:** Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on reflecting or translating a point	115	24.1	302–305	346–348	No. 121–122 (pp. 152–155)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179) No. 1–2 (p. 180)					
17	Recognise, describe and perform transformations with triangles on a co-ordinate plane, focusing on the co-ordinates of the vertices when reflecting, translating or rotating a triangle	115	24.2 (no. 1–2)	305–306	349–350	No. 124a–124b (pp. 158–161)	No. 1–2 (pp. 182–183) No. 1–3 (pp. 183–184)					
18	Reflect, translate or rotate a triangle	115	24.2 (no. 3–5)	306–307	350	No. 123 (pp. 156–157)	No. 1–3 (p. 181) No. 1–4 (pp. 185–188)					
19	Enlarge or reduce triangles	115	24.3a	308–310	351–352	No. 125a–125b (pp. 162–165)	No. 1–5 (pp. 188–192)					
20	Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures	115	24.3b	311–312	353–354	No. 126 (pp. 166–167)						
Notes: 1. Refer to Day 16: Squared paper is useful for this topic. 2. Refer to Day 17: Learners require tracing paper												
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 all the work set for the week? If not, how will you get back on track?						What will you change next time? Why?						
						HOD:		**Date:**				

Spot On Mathematics Week 5												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
21	Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures cont. (use *Sasol Inzalo book*)	115					No. 1–5 (p. 193) No. 1–7 (p. 194)					
22	**Formal assessment: Assignment** (use *Revision Activity*)		Rev. Act. 24	314	356–357							
23	Revise for examinations											
24	Revise for examinations											
25	Review assignment; Revise for examinations											

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Spot On Mathematics Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Spot On Mathematics Weeks 7–9: Revision followed by examination period

This section maps out how you should use the Platinum Mathematics Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page numbers are referenced). These are the same for both the Learner's Book and the Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Platinum Mathematics Week 1													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
1	**Geometry of 3-D objects:** Classify 3-D objects; Revise prisms, pyramids and nets	116	25.1 (no. 1–2)	278–284	140–142	No. 127–128 (pp. 168–171)	No. 1–5 (pp. 195–198) No. 1–9 (pp. 199–204) No. 1–9 (pp. 205–214)						
2	Classify 3-D objects: Revise prisms, pyramids and nets	116	25.2 (no. 3–4)	284	142–143	No. 129 (pp. 172–173)	No. 1–3 (pp. 215–216) No. 1–4 (pp. 216–217) No. 1–6 (pp. 218–221)						
3	Describe, name and compare the 5 Platonic solids; Construct nets to make models of these solids	116	25.2	285–287	143–144	No. 132a–132b (pp. 178–181)	No. 1–5 (pp. 222–224)						
4	The properties of Platonic solids	116	25.3	288	145	No. 130–131 (pp. 174–177)	No. 1–2 (pp. 225–228)						
5	Revise Geometry of 3-D objects	116	Rev.	289	145–147	No. 133a–134 (pp. 182–191)							

Notes: 1. Refer to Day 1: Learners require compass, protractor, coloured paper and scissors.
2. Refer to Day 2: Cereal boxes, other boxes and a Toblerone box may be useful.
3. Refer to Day 3: Models of Platonic solids should be provided.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Platinum Mathematics Week 2 *Select													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
6	**Formal assessment: Assignment** (*Planning a Town*)		Ass.	252–253	128								
7	**Graphs:** Analyse and interpret global graphs of problem situations	114	23.1	254–257	129–130		No. 1–5 (pp. 159–165)						
8	Analyse and interpret global graphs of problem situations (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 114a–114b (pp. 134–137)	No. 1–4 (pp. 165–166) No. 1–2 (pp. 167–168)						
9	Analyse and interpret global graphs of problem situations (use *DBE workbook* and *Sasol Inzalo book*)	114				No. 115–116 (pp. 138–141)	No. 1–2 (pp. 168–169) No. 1–2 (pp. 169–171)						
10	Revise the Cartesian Plane (*use DBE workbook*)	114				No. 117a–119* (pp. 142–149)							

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Platinum Mathematics Week 3												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
11	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane	114	23.2	258–260	130–131							
12	Review assignment done in previous week; Draw graphs on the Cartesian Plane (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 112–113 (pp. 130–133)	No. 1–6 (pp. 171–174)					
13	Draw graphs on the Cartesian Plane (use *DBE workbook*)	114				No. 120 (pp. 150–151)						
14	Revise graphs	114	Rev.	261	132							
15	**Transformation geometry:** Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on translating a point within and across quadrants	115	24.1–24.2	262–264	133	No. 121 (pp. 152–153)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179) No. 1–2 (p. 180)					
Note: Refer to Day 15: Squared paper is useful for this topic.												

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Platinum Mathematics Week 4													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
16	Recognise, describe and perform transformations with triangles on a co-ordinate plane, focusing on the co-ordinates of the vertices when translating a triangle within and across quadrants	115	24.3	265–266	134	No. 124a (pp. 158–159)	No. 1–3 (p. 181)						
17	Reflect a point in the Y-axis or X-axis	115	24.4	267–268	134–135	No. 122 (pp. 154–155)	No. 1–2 (pp. 182–183)						
18	Reflect or translate a triangle and other shapes in the Y-axis or X-axis	115	24.5	268–270	135–136	No. 124b (pp. 160–161)	No. 1–3 (pp. 183–184)						
19	Rotate a triangle around the origin; Translate, reflect or rotate triangles	115	24.6	271–273	136–137	No. 123 (pp. 156–157)	No. 1–4 (pp. 185–188)						
20	**Formal assessment: Investigation** (use Exercise 24.7 on Enlargements and Reductions to investigate the effects on perimeter and area)		24.7	274–276	137–139								

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why? **HOD:** **Date:**

Platinum Mathematics Week 5												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
21	**Formal assessment: Investigation** cont. (use Exercise 24.7 on Enlargements and Reductions to investigate the effects on perimeter and area)		24.7	274–276	137–139							
22	Go over investigation findings (even if not yet marked); Enlargements and reductions (use *DBE workbook* or *Sasol Inzalo book*)	115				No. 125a–126 (pp. 162–167)	No. 1–5 (pp. 188–192) No. 1–5 (p. 193) No. 1–7 (p. 194)					
23	Revise for examinations											
24	Revise for examinations											
25	Revise for examinations											

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Platinum Mathematics Week 6: Catch up and revision – Plan your week														
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class						
								Date completed						
26														
27														
28														
29														
30														

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Platinum Mathematics Weeks 7–9: Revision followed by examination period

Oxford Headstart Mathematics

This section maps out how you should use the Oxford Headstart Mathematics Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page numbers are referenced). These are the same for both the Learner's Book and the Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Oxford Headstart Mathematics Week 1 *Select													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
1	**Geometry of 3-D objects:** Revise classifying polygons	116	1	370–371	345–348		No. 1–5 (pp. 195–198)						
2	Classify 3-D objects: Polyhedr	116	2	372–374	348–349	No. 127–128 (pp. 168–171)	No. 1–9 (pp. 199–204)						
3	Use and construct nets to make models of Platonic solids; Investigate properties	116	1–3	375–378	349–352	No. 129–130 (pp. 172–175)	No. 1–5 (pp. 222–224) No. 1–2 (pp. 225–228)						
4	Build 3-D models using nets to make models of geometric solids	116	1–2	379–380	352–354	No. 131 (pp. 176–177)	No. 1–9 (pp. 205–214)						
5	Construct more nets and build 3-D models (use *DBE workbook* or *Sasol Inzalo book*)	116				No. 132a–133b* (pp. 178–185)	No. 1–3 (pp. 215–216) No. 1–4 (pp. 216–217) No. 1–6 (pp. 218–221)						

Notes: 1. Refer to Day 1: Models of prisms and pyramids should be provided.
2. Refer to Day 3: Models of Platonic solids should be provided.
3. Refer to Day 4: Learners require sticky tape, scissors, cardboard, paper, plastic straws, plasticine, toothpicks, Jelly Tots.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Headstart Mathematics Week 2 #Supplement												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
6	Revise Geometry of 3-D objects	116	Rev.#	381	355	No. 133c–134 (pp. 182–191)						
7	**Formal assessment: Assignment**		Ass.	338	319							
8	**Graphs:** Features of graphs	114	1–2	340–343	320–323		No. 1–2 (pp. 167–168) No. 1–2 (pp. 168–169)					
9	Analyse and interpret global graphs of problem situations	114	1–2	344–346	324–326	No. 114a–114b (pp. 134–137)	No. 1–5 (pp. 159–165)					
10	Analyse and interpret global graphs of problem situations	114	3#	347	327	No. 115–116 (pp. 138–141)	No. 1–4 (pp. 165–166)					

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Headstart Mathematics Week 3 #Supplement												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
11	The Cartesian Plane: Plot ordered pairs; Four quadrants	114	4	348–349	327–328	No. 117a–119 (pp. 142–149)	No. 1–6 (pp. 171–174)					
12	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane; Go over assignment done in previous week	114	5	350–351	329–330							
13	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 112–113 (pp. 130–133)	No. 1–2 (pp. 169–171)					
14	Draw graphs on the Cartesian Plane (use *DBE workbook*)	114				No. 120 (pp. 150–151)						
15	Revise graphs	114	Rev.	352	331							

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Headstart Mathematics Week 4													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
16	**Transformation Geometry:** Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on translating, reflecting or rotating a point	115	1	354–357	332–336	No. 121 (pp. 152–153)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179) No. 1–2 (p. 180)						
17	Recognise, describe and perform transformations with triangles on a co-ordinate plane, focusing on the co-ordinates of the vertices when translating, reflecting or rotating a triangle	115	2 (no. 1–3)	357–360	337–338	No. 122–123 (pp. 154–157)	No. 1–2 (pp. 182–183)						
18	Translating, reflecting or rotating a triangle	115	2 (no. 4–5)	361	338	No. 124a–124b (pp. 158–161)	No. 1–3 (pp. 183–184) No. 1–4 (pp. 185–188)						
19	Enlarge or reduce geometric figures	115	1	362–364	339–340		No. 1–5 (pp. 188–192)						
20	**Formal assessment: Investigation**		Inv.	364–366	341–342	No. 125a–126 (pp. 162–167)							
Note: Refer to Day 16: Squared paper is useful for this topic.													
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 all the work set for the week? If not, how will you get back on track?						What will you change next time? Why?							
						HOD:				**Date:**			

Oxford Headstart Mathematics Week 5													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB act.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
21	Discuss findings of investigation (even if not yet marked); Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures	115	2	367	342–343		No. 1–5 (p. 193) No. 1–7 (p. 194)						
22	Revise transformation geometry	115	Rev.	368	344								
23	Revise for examinations												
24	Revise for examinations												
25	Revise for examinations												

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Headstart Mathematics Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Oxford Headstart Mathematics Weeks 7–9: Revision followed by examination period

Oxford Successful Mathematics

This section maps out how you should use the Oxford Successful Mathematics Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page numbers are referenced). These are the same for both the Learner's Book and the Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Oxford Successful Mathematics Week 1													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
1	**Geometry of 3-D objects:** Classify 3-D objects: Describe, name and compare 3-D objects	116	1	405–406	314–317	No. 127–128 (pp. 168–171)	No. 1–5 (pp. 195–198) No. 1–9 (pp. 199–204)						
2	Classify 3-D objects: Describe, name and compare the 5 Platonic solids	116	Inv. 2	407–409	317–318	No. 129–131 (pp. 172–177)	(pp. 222–224) No. 1–2 (pp. 225–228)						
3	Use and construct nets of geometric solids	116	1–2	410–412	318–319	No. 132a–132b (pp. 178–181)	No. 1–9 (pp. 205–214)						
4	Build 3-D models using nets to make models of geometric solids	116	3 (no. 1–2)	412–415	320	No. 133a–133b (pp. 182–185)	No. 1–3 (pp. 215–216) No. 1–4 (pp. 216–217)						
5	Build 3-D models using nets to make models of geometric solids	116	3 (no. 3–8)	415	320–321	No. 133c–134 (pp. 182–191)	No. 1–6 (pp. 218–221)						

Notes: 1. Refer to Day 1: Posters of 3-D objects can be provided.
2. Refer to Day 2: Models of Platonic solids should be provided.
3. Refer to Day 4: Learners require sticky tape/glue, scissors, sheets of paper.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Oxford Successful Mathematics Week 2												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
6	Revise Geometry of 3-D objects (Consolidation)	116	Cons.	417	321							
7	**Graphs:** Analyse and interpret global graphs: Linear and non-linear graphs; Constant, increasing and decreasing graphs	114	1–2	357–360	284–286	No. 114a (pp. 134–135)	No. 1–5 (pp. 159–165) No. 1–4 (pp. 165–166)					
8	Analyse and interpret global graphs of problem situations	114	3	360–367	286–287	No. 114b (pp. 136–137)	No. 1–2 (pp. 167–168) No. 1–2 (pp. 168–169)					
9	Analyse and interpret global graphs of problem situations	114	1	368–372	287–290	No. 115 (pp. 138–139)						
10	Analyse, interpret and draw global graphs of problem situations	114	2	372–374	290–291	No. 116 (pp. 140–141)						

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 all the work set for the week? If not, how will you get back on track?

What will you change next time? Why?

HOD: **Date:**

Oxford Successful Mathematics Week 3													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
11	The Cartesian Plane: Plot or identify ordered pairs	114	1	375–379	291–294	No. 117a–117b (pp. 142–145)	No. 1–2 (pp. 169–171)						
12	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane	114	2 (no. 1–4)	379–381	294–295	No. 119–120 (pp. 148–151)	No. 1–6 (pp. 171–174)						
13	Use tables of ordered pairs and develop equations to draw graphs	114	2 (no. 5–6)	381–382	296–297	No. 118 (pp. 146–147)							
14	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane (use *DBE workbook*); Revise graphs (Consolidation)	114	(no. 5–6)	386	298–300	No. 112–113 (pp. 130–133)							
15	**Formal assessment: Assignment** (Graphs)		Ass.	444	367								

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Successful Mathematics Week 4 *Select													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
16	**Transformation geometry:** Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on reflecting a point in the Y-axis or X-axis and translating a point within and across quadrants	115	1–3*	388–392	301–305	No. 121 (pp. 152–153)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179) No. 1–2 (p. 180)						
17	Recognise, describe and perform transformations with triangles on a co-ordinate plane, focusing on the co-ordinates of the vertices when reflecting a triangle in the Y-axis or X-axis	115	1–2	393–395	305–307	No. 122 (pp. 154–155)	No. 1–2 (pp. 182–183) No. 1–3 (pp. 183–184)						
18	Translate a triangle within and across quadrants; Go over assignment done in previous week	115	3	395–396	307–308	No. 124a–124b (pp. 158–161)	No. 1–3 (p. 181)						
19	Rotate a triangle around the origin	115	4	396–397	308–309	No. 123 (pp. 156–157)	No. 1–4 (pp. 185–188)						
20	Calculate the area and perimeter of geometric figures	115	1	398–399	309–310	No. 125a–125b (pp. 162–165)							
Notes: 1. Refer to Day 16: Squared paper is useful for this topic. 2. Refer to Day 19: Learners require a protractor.													
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 all the work set for the week? If not, how will you get back on track?							What will you change next time? Why? **HOD:** **Date:**						

Oxford Successful Mathematics Week 5												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
21	**Formal assessment: Investigation** (The effect of enlargement and reduction on the area and perimeter of shapes)		Inv.	399–400	310–311							
22	Review investigation (even if not yet marked); Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures	115	2	400–401	311–312	No. 126 (pp. 166–167)	No. 1–5 (pp. 188–192) No. 1–5 (p. 193) No. 1–7 (p. 194)					
23	Revise for examinations											
24	Revise for examinations											
25	Revise for examinations											

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why? **HOD:** **Date:**

Oxford Successful Mathematics Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Oxford Successful Mathematics Weeks 7–9: Revision followed by examination period

Clever: Keeping Maths Simple

This section maps out how you should use the Clever: Keeping Maths Simple Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page number are referenced). These are the same for both Learner's Book and Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Clever: Keeping Maths Simple Week 1													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
1	Geometry of 3-D objects: Classify 3-D objects: Describe, name and compare the 5 Platonic solids	116	*What you…* Inv.	368–370	337–341	No. 127–128 (pp. 168–171)	No. 1–5 (pp. 222–224)						
2	Classify 3-D objects: Describe, name and compare the 5 Platonic solids cont.	116	Project	370–373	341–342	No. 129–130 (pp. 172–175)	No. 1–2 (pp. 225–228)						
3	Use and construct nets to build 3-D models of geometric solids	116	1–2	373–375	342–343	No. 131 (pp. 176–177)	No. 1–9 (pp. 205–214)						
4	Use and construct nets to build 3-D models of geometric solids cont.	116	3	376	343	No. 132a (pp. 178–179)	No. 1–5 (pp. 195–198) No. 1–9 (pp. 199–204)						
5	Recognise, use and construct nets	116	4	377–379	344–345	No. 132b (pp. 180–181)	No. 1–3 (pp. 215–216)						
Notes: 1. Refer to Day 1: Models of Platonic solids and examples of nets should be provided. 2. Refer to Day 2: Students require a compass, protractor, cardboard, sticky putty and tape.													
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 all the work set for the week? If not, how will you get back on track?							What will you change next time? Why? **HOD:** **Date:**						

Clever: Keeping Maths Simple Week 2 *Select													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
6	Construct more nets and build 3-D models (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 133a–134* (pp. 182–191)	No. 1–4 (pp. 216–217) No. 1–6 (pp. 218–221)						
7	**Graphs:** Analyse and interpret global graphs of problem situations	114	*What you…*	336–337	293–298	No. 114a–114b (pp. 134–137)	No. 1–5 (pp. 159–165)						
8	**Formal assessment: Investigation**		Inv.	390	354–355								
9	Analyse and interpret global graphs of problem situations	114	1	337–340	299–300		No. 1–4 (pp. 165–166)						
10	Analyse and interpret global graphs of problem situations (use *DBE workbook*)	114	2	341–342	300	No. 115–116 (pp. 138–141)	No. 1–2 (pp. 167–168) No. 1–2 (pp. 168–169)						

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever: Keeping Maths Simple Week 3 #Supplement												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
11	Use tables of ordered pairs to plot or identify points on the Cartesian Plane	114	3#	343–345	301	No. 117a–117b (pp. 142–145)						
12	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane; Go over investigation done in previous week	114	4	345–347	301–304	No. 118–119 (pp. 146–149)	No. 1–2 (pp. 169–171)					
13	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane (use *DBE workbook*)	114				No. 112 (pp. 130–131)						
14	Draw graphs on the Cartesian Plane (use *DBE workbook*)	114				No. 113 (pp. 132–133)						
15	Draw graphs on the Cartesian Plane cont. (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 120 (pp. 150–151)	No. 1–6 (pp. 171–174)					

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever: Keeping Maths Simple Week 4												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
16	**Formal assessment: Assignment**		Ass.	391–392	356–357							
17	**Transformation geometry:** Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on translating a point within and across quadrants	115	*What you...* 1	348–352	305–311	No. 121 (pp. 152–153)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179) No. 1–2 (p. 180)					
18	Translate a triangle, focusing on the co-ordinates of the vertices, within and across quadrants	115	2	353–355	312–313	No. 124a–124b (pp. 158–161)	No. 1–3 (p. 181)					
19	Reflect a point and a triangle in the Y-axis or X-axis	115	3	355–359	313–321	No. 122 (pp. 154–155)	No. 1–2 (pp. 182–183) No. 1–3 (pp. 183–184)					
20	Rotate a point around the origin	115	4	359–360	321–329		No. 1–4 (pp. 185–188)					

Notes: 1. Refer to Day 16: The assignment is incorrectly named *Data handling*.
2. Refer to Day 17: Squared paper is useful for this topic.
3. Refer to Day 20: Learners require a compass and protractor.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever: Keeping Maths Simple Week 5												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
21	Rotate a triangle around the origin	115	5	360–361	330–332	No. 123 (pp. 156–157)						
22	Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures	115	6	361–367	332–336	No. 125a–126 (pp. 162–167)	No. 1–5 (pp. 188–192) No. 1–5 (p. 193) No. 1–7 (p. 194)					
23	Revise for examinations											
24	Revise for examinations											
25	Revise for examinations											

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Clever: Keeping Maths Simple Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Clever: Keeping Maths Simple Weeks 7–9: Revision followed by examination period

This section maps out how you should use the Solutions for all Mathematics Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page numbers are referenced). These are the same for both the Learner's Book and the Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Solutions for All Mathematics Week 1 #Supplement													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
1	**Geometry of 3-D objects:** Classify 3-D objects: Investigate polyhedrons	116	*Getting started* Act. 32.1	505–508	311–313	No. 127–128 (pp. 168–171)	No. 1–5 (pp. 195–198) No. 1–9 (pp. 199–204)						
2	Classify 3-D objects: Describe, name and compare the 5 Platonic solids	116	Ex. 32.1#	508–509	314	No. 129–131 (pp. 172–177)	No. 1–5 (pp. 222–224)						
3	Use nets to build models of cubes and prisms	116	Act. 32.2 Ex. 32.2 Act. 32.3 Ex. 32.3	510–513	314–315	No. 132a–132b (pp. 178–181)	No. 1–9 (pp. 205–214)						
4	Use nets to build models of pyramids	116	Act. 32.4 Ex. 32.4	514–517	316–317	No. 133a–133b (pp. 182–184)	No. 1–3 (pp. 215–216) No. 1–4 (pp. 216–217)						
5	Use nets to make models of the Platonic solids	116	Act. 32.5 Ex. 32.5 *Check what…*	517–520	317–318	No. 133c–134 (pp. 182–191)	No. 1–2 (pp. 225–228)						

Notes: 1. Refer to Day 1: Construction set required e.g. Geoconstructa.
2. Refer to Day 2: Models of platonic solids should be provided.
3. Refer to Day 3: Students require sticky tape, cardboard and glue.
4. Refer to Day 4: 2-D cardboard regular shapes should be provided.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Solutions for All Mathematics Week 2													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
6	Use nets to make models of pyramids using circles (use *Sasol Inzalo book*)	116					No. 1–6 (pp. 218–221)						
7	**Graphs:** Analyse and interpret global graphs of problem situations	114	*Getting started* Act. 29.1 Ex. 29.1	458–462	283–286	No. 114a (pp. 134–135)	No. 1–5 (pp. 159–165)						
8	Analyse, interpret and draw global graphs of problem situations	114	Act. 29.2 Ex. 29.2	462–466	287–289	No. 114b (pp. 136–137)							
9	Features of graphs: Increasing and decreasing; local maximum and minimum values; discrete or continuous (use *Sasol Inzalo book*)	114					No. 1–4 (pp. 165–166) No. 1–2 (pp. 167–168) No. 1–2 (pp. 168–169)						
10	Analyse and interpret global graphs of problem situations cont.	114	*Check what…*	467–468	290	No. 115–116 (pp. 138–141)							

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Solutions for All Mathematics Week 3													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
11	Identify and plot ordered pairs on a grid	114	*Getting started* Act. 30.1	469–471	291–293	No. 117a–117b (pp. 142–145)							
12	Plot ordered pairs on the Cartesian Plane	114	Ex. 30.1 Act. 30.2	471–475	293–295	No. 118–119 (pp. 146–149)	No. 1–2 (pp. 169–171)						
13	Draw graphs on the Cartesian Plane (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 120 (pp. 150–151)	No. 1–6 (pp. 171–174)						
14	Revise graphs	114	*Check what…*	480–481	298–300								
15	**Formal assessment: Investigation**		Inv.	–	380–383								
Note: Refer to Day 15: Assessment is found only in the Teacher's Guide – photocopy.													

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Solutions for All Mathematics Week 4													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
16	**Transformation geometry:** Revise transformations of geometric shapes learned in Grade 7	115	*Getting started* Ex. 31.1	482–485	301–305	No. 121 (pp. 152–153)							
17	Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on reflecting a point and the co-ordinates of the vertices of a triangle in the Y-axis or X-axis	115	Act. 31.1 Ex. 31.2	485–488	305–306	No. 122 (pp. 154–155)	No. 1–2 (pp. 182–183) No. 1–3 (pp. 183–184)						
18	Translate a triangle within and across quadrants; Go over investigation done in previous week	115	Ex. 31.	490–493	306–307	No. 124a–124b (pp. 158–161)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179) No. 1–2 (p. 180) No. 1–3 (p. 181)						
19	Rotate a point and a triangle around the origin	115		493–496	307	No. 123 (pp. 156–157)	No. 1–4 (pp. 185–188)						
20	Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures	115		497	308	No. 125a–125b (pp. 162–165)	No. 1–5 (pp. 188–192)						
Notes: 1. Refer to Day 16: Squared paper is useful for this topic. 2. Refer to Day 19: Learners require a protractor.													
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 all the work set for the week? If not, how will you 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**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
21	Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures cont.; Revise transformation geometry	115	Ex. 31.5 *Check what…**	497–504	308–310	No. 126 (pp. 166–167)	No. 1–5 (p. 193) No. 1–7 (p. 194)						
22	**Formal assessment: Assignment**		Ass.	–	375–379								
23	Revise for examinations												
24	Revise for examinations												
25	Go over assignment												

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 all the work set for the week? If not, how will you get back on track?

What will you change next time? Why?

HOD: **Date:**

Solutions for All Mathematics Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Solutions for All Mathematics Weeks 7–9: Revision followed by examination period

Mathematics Today

This section maps out how you should use the Mathematics Today Learner's Book and Teacher's Guide 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 content linked to Learner's Book content.
3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. *Sasol Inzalo Mathematics Book* link to related content (exercise and page numbers are referenced). These are the same for both the Learner's Book and the Teacher's Guide.
9. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Mathematics Today Week 1												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
1	**Geometry of 3-D objects:** Classify 3-D objects: Describe, name and compare the 5 Platonic solids	116	23.1 (no. 1–3)	296–299	132	No. 127–128 (pp. 168–171)	No. 1–5 (pp. 222–224)					
2	Classify 3-D objects: Describe, name and compare the 5 Platonic solids	116	23.1 (no. 4–6)	299	133	No. 129–130 (pp. 172–175)	No. 1–2 (pp. 225–228)					
3	Use nets to make models of cubes, rectangular and triangular prisms	116	23.2 (no. 1–3)	300–301	133	No. 131 (pp. 176–177)	No. 1–9 (pp. 205–214)					
4	Use nets to make models of more 3-D objects	116	23.2 (no. 4–6)	301–302	133	No. 132a–132b (pp. 178–181)	No. 1–5 (pp. 195–198) No. 1–9 (pp. 199–204)					
5	Revise geometry of 3-D objects	116	Rev.	303	133–134	No. 133c–134 (pp. 182–191)	No. 1–3 (pp. 215–216) No. 1–4 (pp. 216–217) No. 1–6 (pp. 218–221)					

Notes: 1. Refer to Day 1: Drawings or models of platonic solids should be provided.
2. Refer to Day 3: Learners require sticky tape, scissors and sheets of A4 card.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Mathematics Today Week 2												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**				
								Date completed				
6	**Graphs:** Analyse and interpret global graphs of problem situations	114	21.1	262–266	114–116	No. 114a–114b (pp. 134–135)	No. 1–5 (pp. 159–165)					
7	Analyse and interpret global graphs of problem situations	114	21.2	266–270	116	No. 114b (pp. 136–137)	No. 1–4 (pp. 165–166)					
8	Analyse, draw and interpret global graphs of problem situations	114	21.3 (no. 1–3)	271–273	116–117	No. 115–116 (pp. 138–141)	No. 1–2 (pp. 167–168) No. 1–2 (pp. 168–169)					
9	Analyse, draw and interpret global graphs of problem situations cont.	114	21.3 (no. 4–5)	274–275	117–118	No. 118–119 (pp. 146–149)						
10	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane	114	21.	276–278	118–119	No. 117a–117b (pp. 142–145)	No. 1–2 (pp. 169–171)					

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 all the work set for the week? If not, how will you get back on track?

What will you change next time? Why?

HOD: **Date:**

Mathematics Today Week 3 *Select													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
11	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane (use *DBE workbook* or *Sasol Inzalo book*)	114				No. 112–113 (pp. 130–133)	No. 1–6 (pp. 171–174)						
12	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane	114	21.5	278–279	120–122								
13	Revise graphs	114	Rev.	280	122	No. 120 (pp. 150–151)							
14	**Formal assessment: Assignment**		Ass.	281–282	125								
15	**Transformation geometry:** Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on translating a point within and across quadrants and reflecting a point in the Y-axis or X-axis	115	22.1–22.2*	284–286	126–127	No. 121 (pp. 152–153)	No. 1–6 (pp. 175–178) No. 1–3 (p. 179) No. 1–2 (p. 180)						
Note: Refer to Day 15: Squared paper is useful for this topic.													

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Mathematics Today Week 4													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
16	Recognise, describe and perform transformations with points on a co-ordinate plane, focusing on the co-ordinates of the vertices when translating a triangle within and across quadrants	115	22.3	287–288	127	No. 124a–124b (pp. 158–161)	No. 1–3 (p. 181)						
17	Reflect a triangle in the Y-axis or X-axis	115	22.4	288–289	127	No. 122 (pp. 154–155)	No. 1–2 (pp. 182–183) No. 1–3 (pp. 183–184)						
18	Rotate a triangle around the origin	115	22.5	289–290	127–128	No. 123 (pp. 156–157)	No. 1–4 (pp. 185–188)						
19	Use proportion to describe the effect of enlargement or reduction on area and perimeter of geometric figures	115	22.6	291–292	128–129	No. 125a–125b (pp. 162–165)	No. 1–5 (pp. 188–192)						
20	The effect and calculations of enlargements or reductions on perimeter and area (use *Sasol Inzalo book*)	115					No. 1–5 (p. 193) No. 1–7 (p. 194)						
Note: Refer to Day 18: Learners require a protractor.													
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 all the work set for the week? If not, how will you get back on track?							What will you change next time? Why?						
							HOD: **Date:**						

Mathematics Today Week 5 *Select													
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	***Sasol Inzalo***	**Class**					
								Date completed					
21	Solve transformation problems	115	22.7	293	129	No. 126 (pp. 166–167)							
22	**Formal assessment: Investigation** (Investigate the relationship between surface area and volume)		Inv.	304	134								
23	Revise for examinations												
24	Go over investigation; Revise for examinations												
25	Revise for examinations												

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Mathematics Today Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Mathematics Today Weeks 7–9: Revision followed by examination period

Sasol Inzalo Mathematics Book

This section maps out how you should use the Mathematics Today Learner's Book and Teacher's Guide 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.
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3. CAPS page numbers at the start of each CAPS topic.
4. Learner's Book exercises that cover the CAPS content for the day. Where an exercise has been recommended for more than one day, it has been divided into two parts.
5. Page reference in the Learner's Book (LB page reference).
6. Page reference in your Teacher's Guide for the day's activities (TG page reference).
7. DBE workbook link to related content (worksheet and page numbers are referenced).
8. Date completed.

Where necessary, notes referring to specific days have been inserted below the week's tracker.

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 peers, and together 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 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, and also forms the basis for collegial conversations with your HOD and peers. Note that a year-end reflection is provided at the end of Week 5.

Sasol Inzalo Mathematics Book 2 Week 1												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
							Date completed					
1	**Geometry of 3-D objects:** Think of space while you look at pictures and drawings; Two special types of polyhedra	116	1–5 1–9	197–198 199–204	195–198 199–204	No. 127–128 (pp. 168–171)						
2	Nets and models of prisms and pyramids: a quick way to make prisms and pyramids; Nets for different polyhedra	116	1–9	205–214	205–214	No. 129–131 (pp. 172–177)						
3	Drawing nets and constructing 3-D models of pyramids	116	1–3	215–216	215–216	No. 132a–132b (pp. 178–181)						
4	What makes a net work? Circles and pyramids	116	1–4 1–6	216–217 218–221	216–217 218–221	No. 133a–133b (pp. 182–185)						
5	Platonic solids: making polyhedral with identical faces and equal edges; The Platonic solids	116	1–5 1–2	222–224 225–228	222–224 225–228	No. 133c–134 (pp. 182–191)						
Notes: 1. Refer to Day 4: Learners need to be equipped with sticky tape, scissors and sheets of A4 card. 2. Refer to Day 5: Models of Platonic solids should be provided.												
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 all the work set for the week? If not, how will you get back on track?						What will you change next time? Why?						
						HOD: **Date:**						

Sasol Inzalo Mathematics Book 2 Week 2												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
							Date completed					
6	**Graphs:** What we can tell with graphs: Interpreting graphs; How graphs show increases and decreases	114	1–5 1–4	161–165 165–166	159–165 165–166	No. 114a (pp. 134–135)						
7	More features of graphs: Local maximum and minimum values; Discrete or continuous	114	1–2 1–2	167–168 168–169	167–168 168–169	No. 114b (pp. 136–137)						
8	Drawing global graphs	114	1–2	169–17	169–17	No. 115–116 (pp. 138–141)						
9	Use tables of ordered pairs to plot points and draw graphs on the Cartesian Plane (use *DBE workbook*)	114				No. 112–113 (pp. 130–133)						
10	Determine the scale of the axes for global graphs, plot points and draw graphs (use *DBE workbook*)	114				No. 119 (pp. 148–149)						

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why? **HOD:** **Date:**

Sasol Inzalo Mathematics Book 2 Week 3												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
							Date completed					
11	Graphs of ordered pairs	114	1–6	171–174	171–174	No. 117a–117b (pp. 142–145)						
12	Draw graphs on the Cartesian Plane (use *DBE workbook*)	114				No. 118 (pp. 146–147)						
13	Draw graphs on the Cartesian Plane (use *DBE workbook*)	114				No. 120 (pp. 150–151)						
14	**Formal assessment: Investigation**											
15	**Formal assessment: Investigation** cont.											
Note: Refer to Day 14 & 15: The investigation can be sourced from another set of LTSMs.												

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Sasol Inzalo Mathematics Book 2 Week 4												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
							Date completed					
16	**Transformation geometry:** What are transformations? Coordinate systems	115	1–6 1–3	177–178 179	175–178 179	No. 121 (pp. 152–153)						
17	Translating points on the coordinate system	115	1–2	180	180							
18	**Formal assessment: Assignment**											
19	Translating triangles on the coordinate system	115	1–3	181	181	No. 124a–124b (pp. 158–161)						
20	Reflecting points in the *x*-axis or *y*-axis; Reflecting triangles in the *x*-axis or *y*-axis	115	1–2 1–3	182–183 183–184	182–183 183–184	No. 122 (pp. 154–155)						

Notes: 1. Refer to Day 16: For Transformation geometry – squared paper is useful.
2. Refer to Day 18: The assignment can be sourced from another set of LTSMs.

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Sasol Inzalo Mathematics Book 2 Week 5												
Day	**CAPS concepts and skills**	**CAPS pp.**	**LB ex.**	**LB pp.**	**TG pp.**	**DBE workbook**	**Class**					
							Date completed					
21	Rotating points and figures about the origin	115	1–4	185–188	185–188	No. 123 (pp. 156–157)						
22	Calculate and use scale factors; Effect of enlargements or reductions on perimeter and area; Calculating perimeters and areas of enlarged or reduced figures	115	1–5 1–5 1–7	188–192 193 194		No. 125a–126 (pp. 162–167)						
23	Revise for examinations											
24	Revise for examinations											
25	Revise for examinations											
Note: Refer to Day 21: A protractor is required for this lesson.												

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 all the work set for the week? If not, how will you get back on track?	What will you change next time? Why?
	HOD: **Date:**

Sasol Inzalo Mathematics Book 2 Week 6: Catch up and revision – Plan your week													
Day	CAPS concepts and skills	CAPS pp.	LB ex.	LB pp.	TG pp.	DBE workbook	*Sasol Inzalo*	Class					
								Date completed					
26													
27													
28													
29													
30													

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?
2. Did the tracker help with curriculum planning and coverage? How could you use it even more effectively next year?
3. What concepts and skills did learners grasp well this year? What good practice could you use again next year?
4. What did learners struggle with? How can you help your group next year understand these concepts and develop these skills better?
5. What needs to be communicated to the teacher who will teach this group of learners 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:**

Sasol Inzalo Mathematics Book 2 Weeks 7–9: Revision followed by examination period

E. ASSESSMENT RESOURCES

GRADE 8 MATHEMATICS Formal Assessment Record Sheet: Term 4						
	Assignment	Investigation	End-of-year examination	Total	%	Rating (1–7)
Date of assessment						
Total marks for assessment						
Learner name						

Grade 8 Mathematics End-of-year Examination

Time: 2 hours 30 minutes

Total: 125 marks

INSTRUCTIONS TO LEARNERS:

1. There are thirteen questions. Answer all questions.
2. Show all your calculations where necessary. Full marks will not be awarded where working out should be shown but is not.
3. Scientific non-programmable calculators may be used.
4. Squared paper is provided for graphs.
5. Please note that diagrams are not drawn to scale.

SECTION A: 75 MARKS – 1 hour 30 minutes

QUESTION 1:

1.1 Write 720 as a product of its prime factors. (1)

1.2 If $a = 3$ and $b = -2$, what is the value of $a^3 - (2b)^2$? (2)

1.3 Write expressions for each of the following:

1.3.1 The product of $(a + b)$ and 2 (1)

1.3.2 Six times a number decreased by 10 (1)

1.4 Write 0,0165283 in scientific notation. (1)

[6]

QUESTION 2:

2.1 Write in ascending order:

a) 3,76; 3,761; 3,701; 3,7; 3,07 (1)

b) $\frac{5}{6}; \frac{7}{8}; \frac{6}{9}; \frac{5}{5}$ (2)

2.2 There are 300 learners in a school. $\frac{3}{5}$ of the learners in a school are girls. $\frac{1}{10}$ of the boys and $\frac{1}{9}$ of the girls failed their exams. Calculate:

2.2.1 The number of boys in the school (2)

2.2.2 The percentage of learners who failed. (4)

2.3 There is a 20% sale on sunglasses. Determine the original price of a pair of sunglasses if the sale price is R99,99. (2)

[11]

QUESTION 3: *No calculator*

Evaluate each of the following expressions:

3.1 $2\frac{3}{8} - 4\frac{7}{12}$ (2)

3.2 $(3\sqrt{9} + \sqrt{48 + 1}) \div 2$ (2)

3.3 $\sqrt[3]{-2\frac{10}{27}}$ (2)

3.4 5,65 × 7,3 (2)

[8]

QUESTION 4:

Simplify:

4.1 $(3r - 1)(3r + 1) - 6r(r - 1)^2 - 4r(1 - r)$ (5)

4.2 Subtract $-6d^2 + 4bc - 10cd$ from $-16bc + cd - 8d^2$ (3)

4.3 $\frac{7xy^2 - 5x^3y + 3xy}{-xy}$ (3)

4.4 $(6mn)^0 \times \sqrt{(-3m^2)^2} \times (2n^2)^3$ (3)

4.5 $\frac{-3y^7x^6}{4y^3} \div \frac{x^5}{8y^2}$ (3)

[17]

QUESTION 5:

Solve:

5.1 $3 - 4(a + 2) = 7a + 14$ (2)

5.2 $\frac{y+1}{6} = \frac{5}{2} - y$ (3)

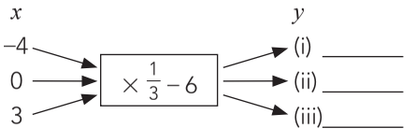
5.3 $10.3^x = 90$ (3)

5.4 The length of a rectangle is $3x$ cm and its breadth is x cm. If the perimeter of the rectangle is 80 cm, what are the length and breadth of the rectangle? (4)

[12]

QUESTION 6:

6.1 Complete the flow diagram:



Write an equation to show this relationship. (3)

6.2 Given the following table:

x	1	2	3	4	5	6	…	q
y	6	13	20	p	34	41	…	83

6.2.1 Give the relationship between x and y in the form $y =$ _____ (2)

6.2.2 Determine the value of p. (1)

6.2.3 Determine the value of q. (2)

6.3 A farmer picks oranges in his orchard every day. On the first day he collects 1 box of oranges, on the second day he collects 2 boxes, on the third day 4 boxes, on the fourth day 8 boxes and so on.

Day 1 Day 2 Day 3

Each orange in the above diagram represents one box.

6.3.1 How many boxes of oranges would be collected on the nth day? (2)

6.3.2 How many boxes of oranges would be collected on the 8th day? (2)

[12]

QUESTION 7:

7.1 7.1.1 Complete the table below given that $y = -3x + 2$

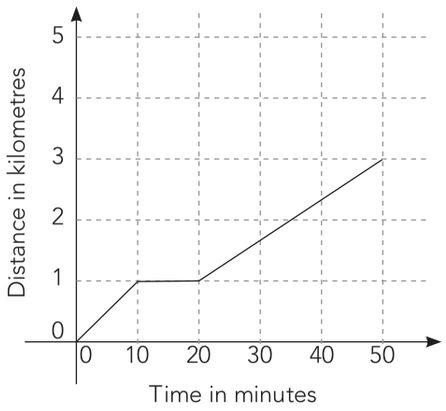
x	–1	0	1
y			

(2)

7.1.2 Plot the points and draw the graph of $y = -3x + 2$ on a Cartesian plane. (Use the squared paper provided.) (2)

7.2 The following graph shows Thabo's journey from his home to school:

Thabo's journey



Thabo left home at 07:00.

He cycled at first then his bicycle got a puncture, so he stopped for a while, fixed the puncture, and continued with his journey.

7.2.1 How far was Thabo from his home after 15 minutes? (1)

7.2.2 How long did it take him to cycle a distance of 1,5 km? (1)

7.2.3 What fraction of an hour did he take to get to school? (1)

7.2.4 If he had cycled at a constant speed of 6 km/h the whole way without stopping, at what time would he have arrived at school? (2)

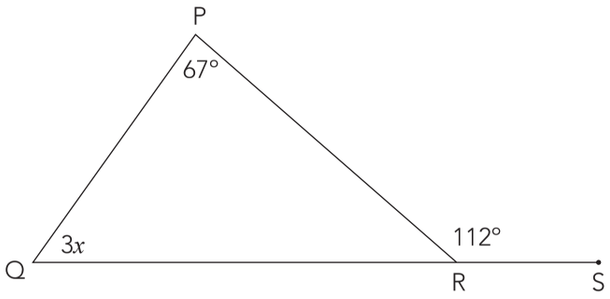
[9]

SECTION B: 50 MARKS – 1 hour

QUESTION 8: *Give reasons for each statement.*

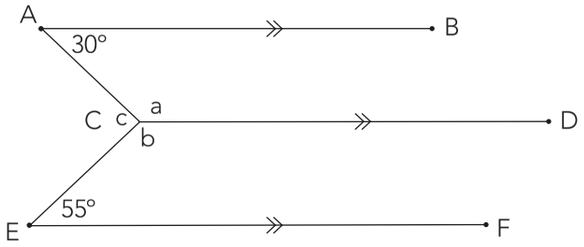
8.1 8.1 Use your pair of compasses to construct a 120° angle. (3)

8.2 8.2.1 Given ΔPQR with QRS a straight line. Solve for x



(3)

8.2.2 AB //CD //EF. Determine the values of a, b and c



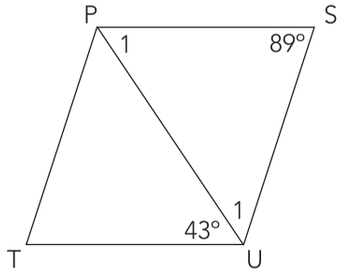
(3)

8.2.3 If PSUT is a rhombus, determine the value of:

a) $\hat{T}$ (2)

b) $\hat{U}_1$ (3)

c) Why is ΔPTU///ΔUSP? (3)

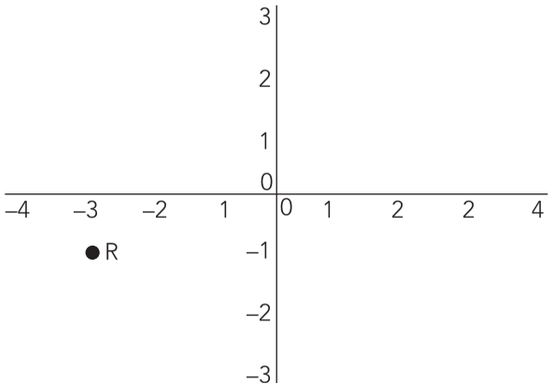


[17]

QUESTION 9:

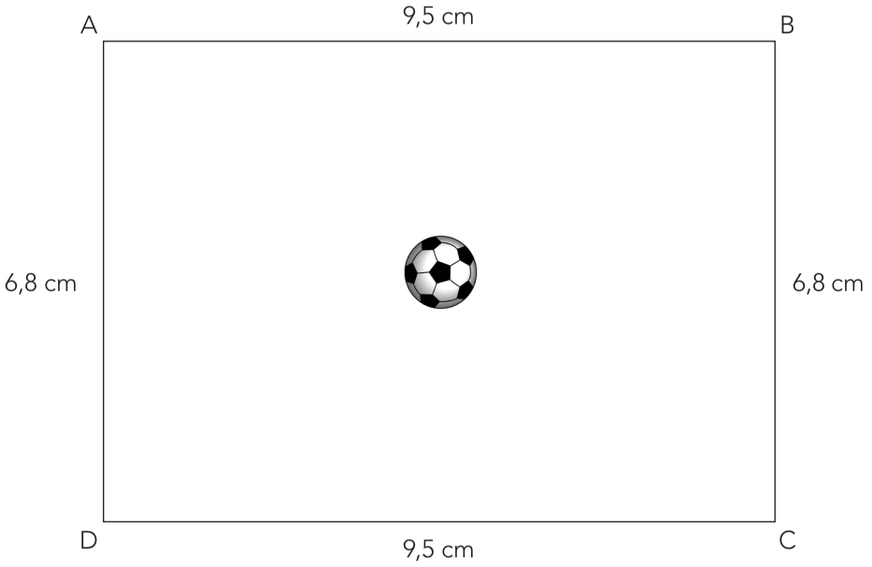
9.1 What are the co-ordinates of the image A' of A (3; –2) if A is translated 6 units to the right and 5 down? (2)

9.2 A triangle ΔRST is rotated 90° anti-clockwise. If R is the ordered pair (–3; –1), what will R' be after the transformation has taken place?



(2)

9.3 A soccer field has been drawn to scale below



9.3.1 If the field is 1 000 times bigger in reality, determine the actual length and breadth of the field. (2)

9.3.2 Determine the area of the field in km^2. (3)

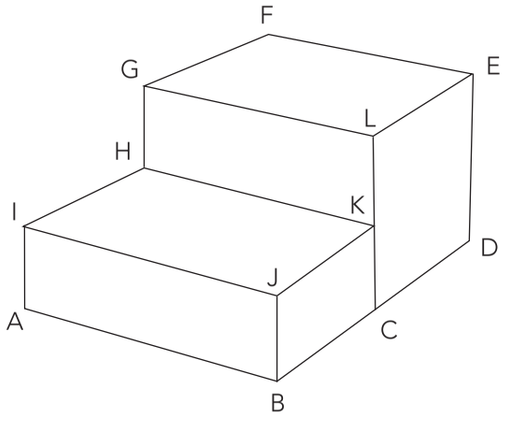
[9]

QUESTION 10:

10.1 Give the formula for the volume of a rectangular prism. (1)

10.2 How much cement is needed for the cuboid-shaped steps in the diagram below?
JB = 0,5 m, JK = 0,8 m, AB = 1,2 m

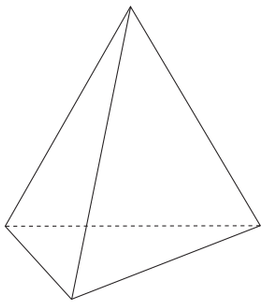
Note: JB=LK and JK=LE (3)



[4]

QUESTION 11:

This is a platonic solid:



11.1 Give the name of the solid. (1)

11.2 What is the relationship between the faces, edges and vertices of this solid? (2)

11.3 Draw a net for this solid. (2)

[5]

QUESTION 12:

The table shows how many coloured balls there are in a bag.

Colours	Red	Blue	Green	Yellow
Number of balls	6	6	6	6

If a ball is chosen at random:

12.1 what is the probability of getting a blue ball? (2)

12.2 what is the probability of not getting a blue ball? (2)

12.3 what is the probability of choosing a white ball? (1)

[5]

QUESTION 13:

13.1 The following scores are provided for 10 people who played a computer game:

60; 65; 60; 54; 65; 72; 45; 66; 67; 60

13.1.1 Draw a stem and leaf representation of the data. (2)

13.1.2 Give the mode of the data. (1)

13.1.3 Determine the median. (2)

13.1.4 What percentage of people scored below the median? (1)

13.2 David's maths average (mean) after 4 tests is 72%. He gets 85% for his fifth test. What is his new average? (4)

[10]

Grade 8 Mathematics End-of-year Examination: Memorandum and cognitive levels of questions

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

The levels are:

K: Knowledge – straight recall of facts
RP: Routine Procedures – well-known, simple applications and calculations
C: Complex Procedures – procedures involving complex calculations and/or higher reasoning
P: Problem Solving – solving problems for which higher order reasoning and processes are involved

More information about these levels can be found in the CAPS (p. 157).

SOLUTIONS	Marks and comments	COGNITIVE LEVELS
QUESTION 1:		
1.1 $720 = 3 \times 3 \times 2 \times 2 \times 2 \times 2 \times 5$ $= 3^2 \times 2^4 \times 5$ ✓ *prime factors*	(1)	RP
1.2 $a3 - (2b)^2$ $= 3^3 - (2(-2))^2$ ✓ *substitution* $= 27 - (-4)^2$ $= 27 - 16$ ✓ *simplification* $= 11$ ✓ *answer*	(2)	RP
1.3.1 $2(a + b)$ ✓ *expression*	(1)	K
1.3.2 $6x - 10$ ✓ *expression*	(1)	RP
1.4 $0{,}0165283 = 1{,}65283 \times 10^{-2}$ ✓ *notation*	(1)	RP

SOLUTIONS	Marks and comments	COGNITIVE LEVELS
QUESTION 2:		
2.1 Written in ascending order:		
a) 3,07; 3,7; 3,701; 3,76; 3,761 ✓ *perfect order*	(1)	K
b) $\frac{5}{6}; \frac{7}{8}; \frac{6}{9}; \frac{5}{5}$ = 0,83; 0,875; 0,67; 1 ascending order: 0,67; 0,83; 0,875; 1 ✓ *decimals* $= \frac{6}{9}; \frac{5}{6}; \frac{7}{8}; \frac{5}{5}$ ✓ *answer*	(2) Or can use equivalent fractions with same LCD	CP
2.2.1 Number of boys: $= \frac{2}{5} \times 300$ ✓ *expression* $= 2 \times 60$ = 120 boys ✓ *answer* Or $\frac{3}{5} \times 300$ ✓ $= 3 \times 60 = 180$ ✓ *calculation* $300 - 180 = 120$ ✓ *answer*	(2)	RP
2.2.2 Boys: $\frac{1}{10} \times 120$ = 12 boys ✓ *answer* Girls: $\frac{1}{9} \times 180$ = 20 girls ✓ *answer* Therefore 12 +20 = 32 $\frac{32}{300} \times 100$ ✓ *expression* = 10,67% failed their exam ✓ *answer*	(4)	PS
2.3 Sale price: R99,99 Original price: $\frac{x}{100} = \frac{99{,}99}{80}$ $x = 99{,}99 \times \frac{100}{80}$ ✓ *equation* x = R124,99 ✓ *answer*	(2)	CP

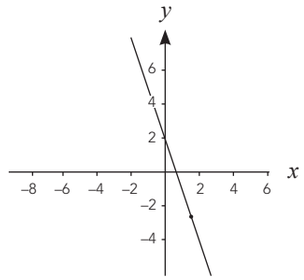
SOLUTIONS	Marks and comments	COGNITIVE LEVELS
QUESTION 3:		
3.1 $2\frac{3}{8} - 4\frac{7}{12} = \frac{19}{8} - \frac{55}{12} = \frac{57-110}{24}$ ✓ *numerator with LCD* $= \frac{-53}{24} = -2\frac{5}{24}$ ✓ *final answer (improper or mixed)*	(2)	RP
3.2 $(3\sqrt{9} + \sqrt{48+1}) \div 2$ $= \frac{(3(3) + \sqrt{49})}{2}$ ✓ *simplification* $= \frac{9+7}{2}$ $= \frac{16}{2}$ $= 8$ ✓ *answer*	(2)	RP
3.3 $\sqrt[3]{-2\frac{10}{27}}$ $= \sqrt[3]{-\frac{64}{27}}$ ✓ *improper fraction* $= -\frac{4}{3}$ ✓ *answer*	(2)	RP
3.4 $5{,}65 \times 7{,}3 = 41{,}245$ ✓✓ *answer*	(2) Long mult.	RP
QUESTION 4:		
4.1 $(3r-1)(3r+1) - 6r(r-1)^2 - 4r(1-r)$ $= 9r^2 - 1 - 6r(r^2 - 2r + 1) - 4r + 4r^2$ ✓✓✓ *simplification* $= 9r^2 - 1 - 6r^3 + 12r^2 - 6r - 4r + 4r^2$ ✓ *simplification* $= -6r^3 + 25r^2 - 10r - 1$ ✓ *answer*	(5)	RP
4.2 $-16bc + cd - 8d^2 - (-6d^2 + 4bc - 10cd)$ ✓ *expression* $= -16bc + cd - 8d^2 + 6d^2 - 4bc + 10cd$ ✓ *simplification* $= -2d^2 - 20bc + 11cd$ ✓ *answer*	(3)	RP

SOLUTIONS	Marks and comments	COGNITIVE LEVELS
4.3 $\frac{7xy^2 - 5x^3y + 3xy}{-xy}$ $= \frac{7xy^2}{-xy} - \frac{5x^3y}{-xy} + \frac{3xy}{-xy}$ ✓✓ *fractions written separately* $= -7y + 5x^2 - 3$ ✓ *answer*	(3)	CP
4.4 $(6mn)^0 \times \sqrt{(-3m^2)^2} \times (2n^2)^3$ $= 1 \times \sqrt{9m^4} \times 2^3n^6$ ✓ *simplification* $= 1 \times 3m^2 \times 8n^6$ ✓ *simplification* $= 24\,m^2n^6$ ✓ *answer*	(3)	CP
4.5 $\frac{-3y^7x^6}{4y^3} \div \frac{x^5}{8y^2}$ $= \frac{-3y^7x^6}{4y^3} \times \frac{8y^2}{x^5}$ ✓ *multiplication* $= \frac{-24y^9x^6}{4y^3x^5}$ ✓ *simplification* $= -6y^6x$ ✓ *answer*	(3)	RP
QUESTION 5:		
5.1 $3 - 4(a+2) = 7a + 14$ $3a - 4a - 8 = 7a + 14$ ✓ *simplification* $-4a - 7a = 14 + 8 - 3$ $\frac{-11a}{-11} = \frac{19}{-11}$ $a = \frac{-19}{11}$ ✓ *answer*	(2)	RP
5.2 $\frac{y+1}{6} = \frac{5}{2} - y$ LCD: 6 $\frac{y+1}{6} = \frac{15}{6} - \frac{6y}{6}$ ✓ *common denominator* $y + 1 = 15 - 6y$ ✓ *simplification* $y + 6y = 15 - 1$ $7y = 14$ $y = 2$ ✓ *answer*	(3)	CP

SOLUTIONS	Marks and comments	COGNITIVE LEVELS
5.3 $10.3^x = 90$ $\frac{10.3^x}{10} = \frac{90}{10}$ ✓ *division by 10* $3^x = 9$ ✓ *simplification* $3^x = 3^2$ $\therefore\ x = 2$ ✓ *answer*	(3)	CP
5.4 $2(3x + x) = 80$ ✓✓ *equation* $6x + 2x = 80$ $8x = 80$ $x = 10$ cm ✓ *answer* Therefore length: $3 \times 10 = 30$ cm ✓ *answer* Breadth: 10 cm	(4)	PS
QUESTION 6:		
6.1 Flow diagram: i. $\frac{-22}{3}$ ii. -6 iii. -5 ✓✓ *answer* $y = \frac{1}{3}x - 6$ ✓ *equation*	(3)	RP
6.2.1 $y = 7x - 1$ ✓✓ *equation*	(2)	RP
6.2.2 $p = 27$ ✓ *value of p*	(1)	RP
6.2.3 $83 = 7q - 1$ $\frac{84}{7} = \frac{7q}{7}$ ✓ *answer* $12 = q$ ✓ *value of q*	(2)	CP
6.3.1 $T_n = 2^{n-1}$ ✓✓ *expression*	(2)	CP

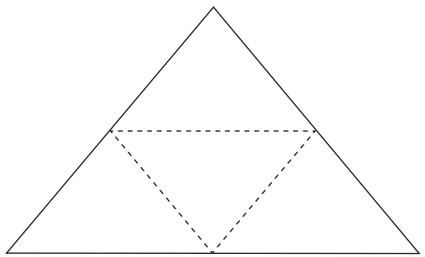
SOLUTIONS	Marks and comments	COGNITIVE LEVELS
6.3.2 $T_8 = 2^{8-1}$ ✓ *substitution* $= 2^7$ ✓ *answer* = 128 boxes of oranges	(2)	RP
QUESTION 7:		
7.1.1	(2)	RP
7.1.2 ✓✓ *sketch*	(2)	RP
7.2.1 1 km ✓ *answer*	(1)	RP
7.2.2 28 minutes ✓ *answer*	(1)	RP
7.2.3 $\frac{50}{60} = \frac{5}{6}$ of an hour ✓ *answer*	(1)	CP
7.2.4 Time $= \frac{D}{S} = \frac{3}{6} = \frac{1}{2}$ an hour ✓ *answer* Thabo would have arrived at 07:30. ✓ *conclusion*	(2)	PS

x	–1	0	1
y	5	2	–1



SOLUTIONS	Marks and comments	COGNITIVE LEVELS
QUESTION 8:		
8.1 Construction (construct an equilateral triangle to obtain 60° and then another equilateral congruent triangle adjacent to that to obtain 120°) ✓✓ *procedure* ✓ *accurate measurement*	(3)	K
8.2.1 $3x + 67° = 112°$ ✓ *equation* (Exterior angle of triangle) ✓ *reason* $3x = 112° - 67°$ $\frac{3x}{3} = \frac{45°}{3}$ ✓ *simplification* $x = 15°$ ✓ *simplification*	(3)	RP
8.2.2 $a = 150°$ (AB//CD; Co-int angles) ✓ *statement & reason (s&r)* $b = 125°$ (CD//EF; Co-int angles) ✓ *(s&r)* $c = 360° - (150° + 125°)$ (Angles round a point) $= 360° - 275°$ $= 85°$ ✓ *answer*	(3)	RP
8.2.3 a) $\hat{T} = 89°$ ✓ (opposite angles of a rhombus) ✓ *theory*	(2)	K

SOLUTIONS	Marks and comments	COGNITIVE LEVELS
b) $\hat{P}_1 = 43°$ (alt. angles) ✓ *(s&r)* $\hat{U}_1 + \hat{S} + \hat{P}_1 = 180°$ (Sum of angles of a triangle) /co-int angles) ✓ *(s&r)* $\hat{U}_1 + 89° + 43° = 180°$ $\hat{U}_1 = 180° - 89° - 43°$ $\hat{U}_1 = 48°$ ✓ *answer*	(3)	RP
c) $\hat{P}_2 = \hat{U}_1 = 48°$ (alt.<'s) ✓ *(s&r)* $\hat{T} = \hat{S} = 89°$ (proved) ✓ *(s&r)* $P\hat{U}T = \hat{P}_1 = 43°$ (proved) ✓ *(s&r)* $\Delta PTU /// \Delta USP$ (<,<,<)	(3)	RP
QUESTION 9:		
9.1 A (3;–2) → A' (9;–7) ✓✓ *answers for each co-ordinate*	(2)	K
9.2 R'(1; –3) ✓✓ *transformation*	(2)	RP
9.3.1 Length: 9,5 × 1 000 = 9 500 cm ✓ *answer* Breadth: 6,8 × 1 000 = 6 800 cm ✓ *answer*	(2)	K
9.3.2 A = 9 500 × 6 800 = 64 600 000 cm² ✓ *answer* = 0,006460 km² ✓✓ *conversion*	(3)	RP (1) K (2)

SOLUTIONS	Marks and comments	COGNITIVE LEVELS
QUESTION 10:		
10.1 V = l x b x h ✓ *formula*	(1)	K
10.2 V = (1,2 x 0,5 x 0,8) 3 ✓✓ *substitution* = 1,44 m³ ✓ *answer* OR V = 0,5 x 0,8 x 1,2 + 0,8 x 1 x 1,2 = 1,44 m³	(3)	PS
QUESTION 11:		
11.1 Tetrahedron ✓ *theory*	(1)	K
11.2 v + f – e = 4 + 4 – 6 = 2 ✓✓ *answer*	(2)	K
11.3  ✓✓ *net*	(2)	RP
QUESTION 12:		
12.1 P(B) = $\frac{6}{24} = \frac{1}{4}$ ✓✓ *answer*	(2)	RP
12.2 P (not blue) = $\frac{18}{24} = \frac{3}{4}$ ✓✓ *answer*	(2)	RP
12.3 P(W) = 0 ✓ *answer*	(1)	K

SOLUTIONS	Marks and comments	COGNITIVE LEVELS
QUESTION 13:		
13.1 45; 54; 60; 60; 60; 65; 65; 66; 67; 72		
13.1.1 stem and leaf: 4 | 5 5 | 4 6 | 0 0 0 5 5 6 7 ✓✓ *perfect layout* 7 | 2	(2)	RP
13.1.2 60 ✓ *answer*	(1)	K
13.1.3 62,5 ✓✓ *answer*	(2)	RP
13.1.4 50% of the people scored below the median. ✓ *theory*	(1)	K
13.2 $\frac{4 \times 72 + 85}{5}$ ✓✓ *expression (or for different layout)* = 74,6% ✓✓ *final answer*	(4)	PS

Analysis of Cognitive Levels of End-of-year Examination

Table 1 below shows the weighting of the cognitive levels as specified by the CAPS for tests and examinations for the Senior Phase.

Table 1: WEIGHTING OF THE COGNITIVE LEVELS SPECIFIED BY THE CAPS

Cognitive levels	Percentage
Knowledge	≈ 25%
Routine Procedures	≈ 45%
Complex Procedures	≈ 20%
Problem Solving	≈10%

Table 2 below shows the weighting of marks across the cognitive levels in the exemplar examination provided above. As can be seen, this differs slightly from the suggested weightings in the CAPS. This is acceptable, provided that the two lower cognitive levels add up to approximately 70%, while the two higher levels add up to approximately 30%.

In the examination provided, the two lower levels add up to 69,6% and the two higher levels add up to 30,4%, meaning that the examination meets the CAPS requirements.

Table 2: WEIGHTING OF MARKS ACROSS COGNITIVE LEVELS IN THE EXEMPLAR EXAMINATION

Cognitive levels	Mark out of 125	Percentage
Knowledge	20	16,0%
Routine Procedures	67	53,6%
Complex Procedures	21	16,8%
Problem Solving	17	13,6%