Mathematics

Teacher Toolkit: CAPS Planner and Tracker

2019 TERM 3

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GRADE 2 MATHEMATICS TERM 3: Suggested formal assessment mark record sheet

About the Planner and Tracker

The curriculum and assessment planner and tracker is a tool to support teachers in several ways by:

- Providing a plan of what should be taught each day of the term based on the daily lesson plans. By following the programme in the tracker and the lesson plans, you will be sure to cover the curriculum in the allocated time, and to complete the formal assessment programme.
- Enabling you to track your progress through the curriculum during the term. By noting the date when each lesson is completed, you can see whether or not you are 'on track'. If you are not, you can strategise with your head of department and peers on how to ensure that all the work for the term is completed. You should file your completed tracker at the end of each term.
- Encouraging you to reflect on what worked well in your lessons, and where your work could be strengthened. This kind of reflection can support continuous improvement in teaching practice.

A suggested mark record sheet is located at the back of this tracker

The sheet has columns in which you can record the marks for the assessments provided in the lesson plans. You can copy this sheet and add your learners' names in the left hand column. The record sheet will help you when you have to enter marks into SA SAMS. If the 'out of' marks for the assessment activities you have used are not the same as those shown in SA SAMS, these can be changed in SA SAMS. The weightings and levels are done automatically in SA SAMS.

It is important to note that:

The first term is not always the same length. If the term in which you are using the lesson plans and tracker is longer or shorter than 11 weeks, you will need to adjust the pace at which you work to complete the work in the time available, or make another plan to stay on track.

The following components are provided in the columns of the planner and tracker tables for each week:

- 1. Day (Monday to Friday)
- 2. Lesson Plan number (The numbered lesson from the lesson plans)
- 3. Lesson objective (The work to be covered in the lesson)
- 4. Lesson resources (The resources you need to prepare for the lesson)
- 5. Date completed (this needs to be filled in each day).

You can make the learning and teaching of maths more effective by remembering a few simple DOs and DON'Ts

DO	DON'T
Teach with a SMILE	
Give learners enough time to think/even struggle	Explain everything.
and discover something on their own and to keep	
quiet while they are thinking/working individually.	
Plan the lesson with enough time to let learners	Rush learners into saying/doing something by saying
deepen their own thinking. Be patient!	'quick, quick, quick'.
Share a variety of answers/thinking with all the	Erase/remove incorrect answers.
learners and let them compare, think and explain	
which ones are OK/not OK and why. Discuss	
important errors so that everyone can learn from	
them.	
Ask learners 'why did you think so', either if their	
answer is correct or not correct.	Say 'No', 'Wrong', 'Next', 'Right', 'Yes', 'Correct',
Assist learners to discover why and where she/he	etc. immediately after learners give the answer.
made a mistake. Use other learners as well to	
explain why something is not correct.	
	Answer the phone.

Weekly reflection

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

- Was your preparation for the lesson adequate? For instance, did you have all the necessary resources? Had you thought through the content so that you understood it fully and could therefore 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?

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. It also forms the basis for collegial conversations with your head of department and your peers.

Reflect on this as you prepare lessons that follow the CPA approach

Learners need to make the move from concrete to abstract – but this does not happen suddenly or on one move. They may need to go backwards and forwards between representations in the CPA method many times until they have fully achieved abstraction. That is why in your lessons you will continue to provide concrete and pictorial representations – but as soon as a learner shows he/she can work abstractly, you should not hold them back, allow them to do so. When they need the support of concrete/pictorial, offer it to them again.

TMU summary of maths teaching approaches

CPA APPROACH

The Concrete-Pictorial-Abstract (CPA) approach helps learners develop the concepts of numbers. The CPA approach uses several different representations for concepts of numbers 1, 10 and 100. For, instance, a number '5' can be represented by 5 bottle tops (concrete objects), 5 circles (pictorial representations and a number symbol '5' (abstract). The following table shows the materials used in the TMU lesson plans. It is important to connect one representation to the other representations.

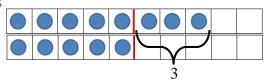
Number symbols	100	10	1
Number names	hundred	ten	one
Base ten kit (manipulatives)	• •		
Simplified pictorials (drawing)			0

In the CPA approach, the following methods are of great importance.

a. **Pre-number concepts by a ten frame** (Grade 1)

Ten frames can make all critical activities easier and clearer. (CAPS P93 English version)

- Matching (one-to-one correspondence)
- Sorting
- Comparing



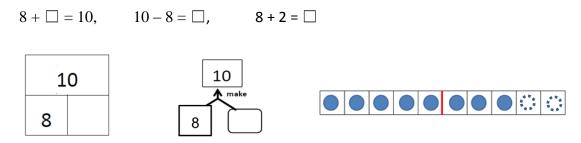
• Ordering

5					
7					
8					

• Subitising



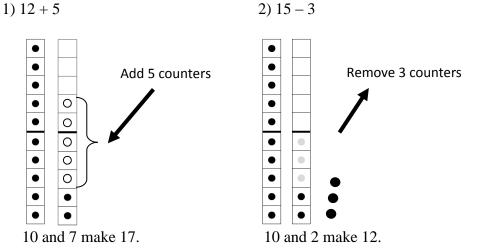
All the following problems are based on the same concept. Manipulating concrete objects in a ten frame helps learners to visualise the concept.



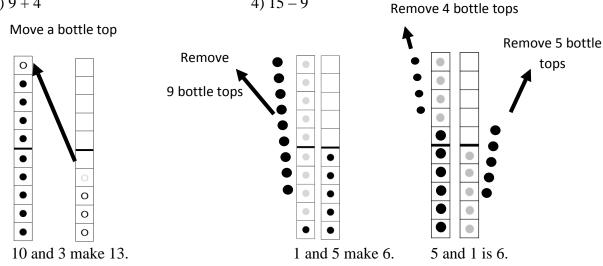
b. Make-a-ten method (Grade 1)

'Make-a-ten' method assists learners in shifting methods from counting to using the base-ten number system. The idea of number bonds 2 to 9 and subitising are critical for using the make-a-ten method. 'Make-a-ten' helps learners to develop the concept of place value.

• Addition without carrying and subtraction without borrowing. There is no change in the tens place.



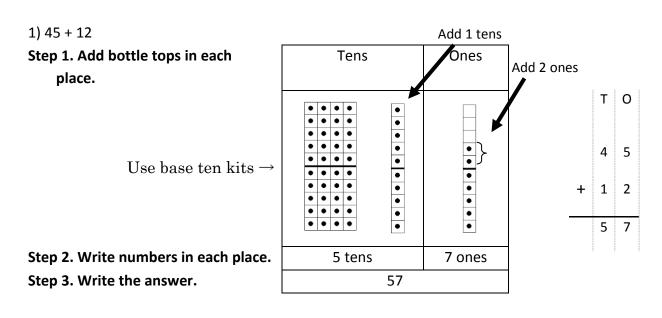
Addition with carrying and subtraction with borrowing.
 3) 9 + 4
 4) 15 - 9



c. Column method by base ten kits [concrete objects] (Grade 2, 3)

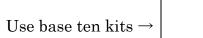
It is critical to show the connection between the place value table and the column method.

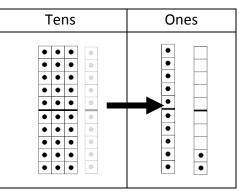
In Grade 2 and 3, learners use base ten kits on a place value table.

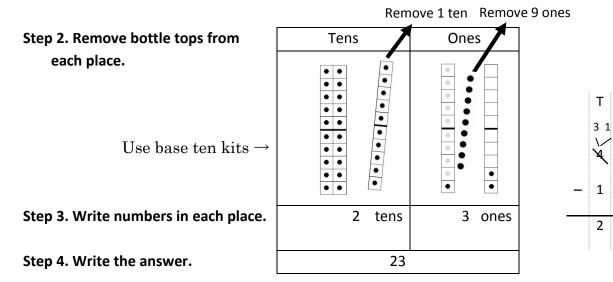


2) 42 – 19

Step 1. Exchange 1 ten to 10 ones.







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2

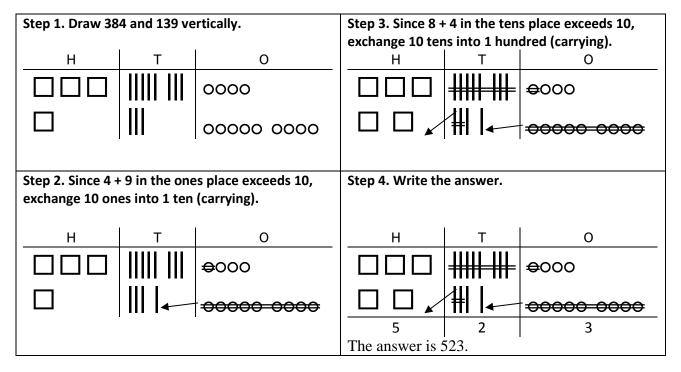
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d. Column method by simplified pictorials [pictorial representation] (Grade 3)

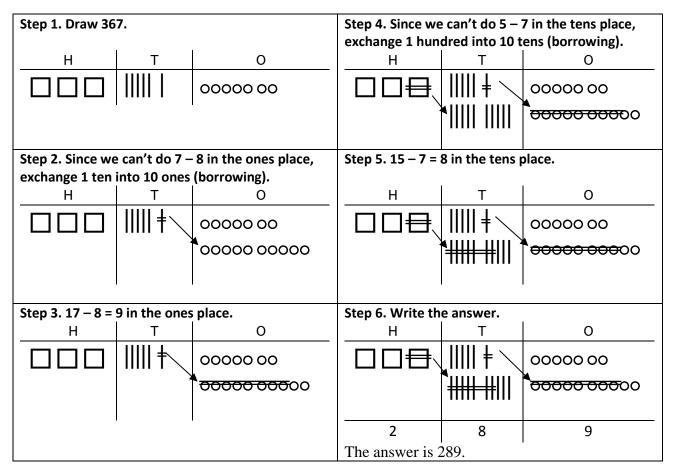
In Grade 3, learners use simplified pictorials. In the following diagrams, all the steps can be drawn in one diagram. Let learners make a group of five to show numbers 6 to 10 by organising pictorials as follows.

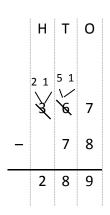
1) 384	+	139
-	,		



		Т	0
		1	
	3		
+	1	3	9
		2	

2) 367 – 78

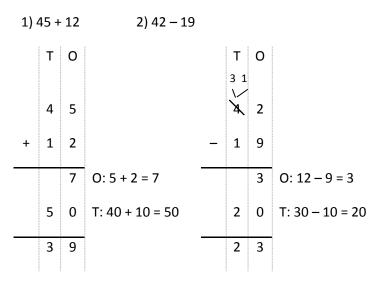




Column method [abstract representation] (Grade 2, 3) e.

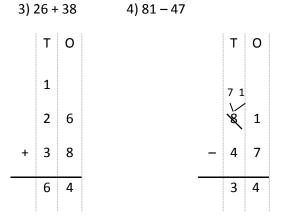
In grade 2, learners are expected to write the column method using two rows as follows. Each row shows the number place of ones and tens. In grade 3, learners can write in one row.

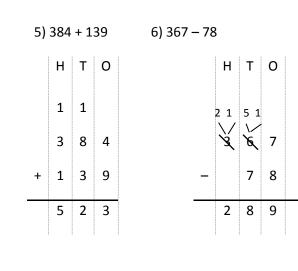
Grade 2



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Grade 3
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4) 81 - 47





PROBLEM SOLVING

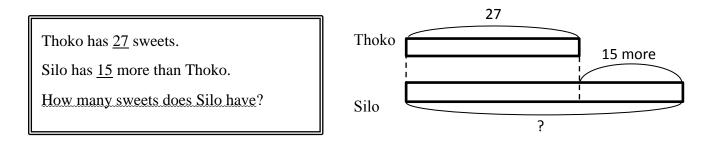
a. Problem solving in general

- 1. Present a problem (e.g. a number sentence) to learners.
- 2. Let learners work on it individually.
- 3. (Work in pairs or groups of less than 4). * This step can be skipped sometimes.
- 4. Ask several learners to give their answers.
- 5. Discuss the answers that are presented and find the correct one. Discuss errors as well.
- 6. Let learners correct their work in their classwork books if necessary.

b. Word problem solving with manipulatives or diagram 4 steps to solve word problem

Step 1. Understand the problem.

- 1. Write the word problem on the chalkboard
- 2. Read the problem.
- 3. Let learners read the problem until they read it fluently.
- 4. Underline the number.
- 5. Underline the question with a wavy line.
- 6. Let learners reproduce the story with manipulatives or diagrams.



Step 2. Devise a plan.

- 1. Determine the operation.
- 2. Write number sentence.

Step 3. Carry out the plan.

1. Find the answer of the number sentence.

Step 4. Look back.

- 1. Compare the learners' solutions.
- 2. Do the corrections.
- 3. Let learners record all the work.

Week 1						
Day	LP	Lesson objective	Lesson Resources	Date completed		
Mon	1	To solve problems using repeated addition.	Bottle tops.			
Tue	2	To recognise the relationship between repeated addition and multiplication.	Bottle tops.			
Wed	3	To solve problems involving repeated addition and multiplication.	Bottle tops.			
Thur	4	To write multiplication number sentences.	Bottle tops.			
Fri	5	Consolidation of work done this week.	Learner Activity Book.			

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?

Week 2					
Day	LP	Lesson objective	Lesson Resources	Date completed	
Mon	6	Assessment	Assessment activity in teacher's resources.		
Tue	7	To solve multiplication number sentences.	Bottle tops.		
Wed	8	To learn the 5 times table – building it up.	Bottle tops.		
Thur	9	To consolidate knowledge of the 5 times table.	Multiplication cards (× 5) (see <i>Printable Resources</i>).		
Fri	10	Consolidation of work done this week.	Learner Activity Book.		

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?

1100

_____ Date _____

Week 3					
Day	LP	Lesson objective	Lesson Resources	Date completed	
Mon	11	To learn the 2 times table – building it up.	Bottle tops.		
Tue	12	To consolidate knowledge of the 2 times table.	Multiplication cards (\times 2) (see <i>Printable Resources</i>).		
Wed	13	Assessment	Assessment activity in teacher's resources.		
Thur	14	To learn the 3 times table – building it up.	Bottle tops.		
Fri	15	Consolidation of work done this week.	Learner Activity Book.		

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?

1100

_____ Date _____

Weel	14			
Day	LP	Lesson objective	Lesson Resources	Date completed
Mon 16	To consolidate knowledge of the 3	Multiplication cards (\times 3) (see		
	times table.	Printable Resources).		
Tue	17	To learn the 4 times table – building it up.	Bottle tops.	
Wed 18	18 To consolidate knowledge of the 4 times table.	Multiplication cards (\times 4) (see		
		Printable Resources).		
Thur ¹⁹	Assessment	Assessment activity in teacher's		
		resources.		
Fri	20	Consolidation of work done this week.	Learner Activity Book.	

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?

Day	LP	Lesson objective	esson objective Lesson Resources						
Mon	21	To solve multiplication number sentences.	Array diagram (see <i>Printable</i> <i>Resources</i>), scrap paper (2 sheets per learner), enlarged array diagram (teacher).						
Tue	22	To create and solve multiplication number sentences using array diagrams.	Array diagram (see <i>Printable</i> <i>Resources</i>), enlarged array diagram (teacher), multiplication cards (×2, ×3, ×4 and ×5) (see <i>Printable</i> <i>Resources</i>).						
Wed	23	To solve multiplication word problems using a multiplication table.	Array diagram (see <i>Printable</i> <i>Resources</i>), enlarged array diagram (teacher), blank 1 to 5 enlarged multiplication table (teacher), multiplication cards (×2, ×3, ×4 and ×5) (see <i>Printable Resources</i>).						
Thur	24	To solve multiplication number sentences.	Array diagram (see <i>Printable</i> <i>Resources</i>), enlarged array diagram (teacher), 1 to 5 enlarged multiplication table (teacher), multiplication cards (×2, ×3, ×4 and ×5) (see <i>Printable Resources</i>).						
Fri	25	Consolidation of work done this week.	Learner Activity Book.						

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?

Week 6										
Day	LP	Lesson Resources	Date completed							
Mon	26	Assessment	Assessment activity in teacher's resources.							
Tue	27	To identify and construct halves.	Scrap paper, scissors.							
Wed	28	To identify and construct quarters.	Paper strips (learners), large paper strips (teacher).							
Thur	29	To identify and construct eighths.	Paper strips (learners), large paper strips (teacher).							
Fri	30	Consolidation of work done this week.	Learner Activity Book.							

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?

Day	LP	Lesson objective	Lesson Resources	Date completed
Mon	31	Assessment	Assessment activity in teacher's resources.	
Tue	32	To recognise, describe and name 2- D shapes: circles, triangles, squares and rectangles.	Large square and rectangle (teacher), shape cut-outs (see <i>Printable Resources</i>).	
Wed	33	To describe, sort and compare 2-D shapes in terms of: shape, straight sides and round sides.	Shape cut-outs (see <i>Printable</i> <i>Resources</i>), large circle, square, triangle, rectangle (teacher).	
Thur	34	To describe, sort and compare 2-D shapes in terms of: shape, size, straight sides and round sides.	Scrap paper (1 piece per learner).	
Fri	35	Consolidation of work done this week.	Learner Activity Book.	

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?

HO	D
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_____ Date _____

Week 8										
Day	LP	Lesson objective	Lesson Resources	Date completed						
Mon	36	To revise and consolidate 2-D shapes and their properties.	Scrap paper, old magazines.							
Tue	37	To identify lines of symmetry in 2-D shapes.	Paper shapes (circle, square and triangle per group), pictures of butterflies (optional – e.g. from old magazines).							
Wed	38	To identify and draw lines of symmetry in 2-D geometrical and non-geometrical shapes.	N/a.							
Thur	39	Assessment	Assessment activity in teacher's resources.							
Fri	40	Consolidation of work done this week.	Learner Activity Book.							

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?

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_____Date _____

Week	9			
Day	LP	Lesson objective	Lesson Resources	Date completed
Mon	41	To identify horizontal and/or vertical lines of symmetry.	N/a.	
Tue	42	To copy, extend, create and describe in words simple geometric patterns made with drawings of lines, shapes or objects.	Bottle tops and matchsticks/sticks	
Wed	43	To identify, describe in words and copy geometric patterns in nature, from everyday life and from our cultural heritage.	N/a.	
Thur	44	Assessment	Assessment activity in teacher's resources.	
Fri	45	Consolidation of work done this week.	Learner Activity Book.	

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?

Day	LP	Lesson objective	Lesson Resources	Date completed
Mon	46	To tell 12-hour time in hours, half hours and quarter to/past on analogue clocks.	Analogue clock (see <i>Printable Resources</i>).	
Tue	47	Work with calendars. Name the days of the week and months of the year and place birthdays, religious festivals, public holidays, historical events and school events on a calendar.	Months of the year and days of the week name cards (see <i>Printable</i> <i>Resources</i>), different types of calendars (e.g. a daily, weekly, monthly, yearly).	
Wed	48	To calculate elapsed time.	Analogue clock (see <i>Printable Resources</i>).	
Thur	49	Assessment	Assessment activity in teacher's resources.	
Fri	50	Consolidation of work done this week.	Learner Activity Book.	

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?

Term 3 Assessment

The assessment for the term is designed into the lesson plans. Oral, practical and written assessment activities sequenced into the plans and located in the numbered lesson sequence.

The assessment that will be found in the lesson plans is the following:

- 1. Week 2 Lesson 6
 - a. Written: Addition (15 marks)
 - b. Oral and practical: Number Multiplication (7 marks)
- 2. Week 3 Lesson 13a. Written: Addition (15 marks)
- Week 4 Lesson 19

 Written: Addition (15 marks)
- 4. Week 6 Lesson 26a. Written: Subtraction (15 marks)
- 5. Week 7 Lesson 31
 - a. Written: Addition and subtraction (10 marks)
 - b. Oral and practical: Number Fractions (7 marks)
- 6. Week 8 Lesson 39
 - a. Written: Measurement Length (10 marks)
 - b. Oral and practical: Space and Shape Symmetry (7 marks)
- 7. Week 9 Lesson 44
 - a. Written: Measurement Capacity (10 marks)
 - b. Oral and practical: Patterns Geometric patterns (7 marks)
- 8. Week 10 Lesson 49
 - a. Written: Space and shape (10 marks)

The mark sheet on the following page can be used to record the marks achieved by learners for the various assessment activities throughout the term and to calculate the final marks to be entered into SA SAMS for the Term 3 Assessment Task.

GRADE 2 MATHEMATICS TERM 3: Suggested formal assessment mark record sheet																	
TASK/TOPIC/COMPONENT	Number: Written	Number: Oral and practical	Number: Written	Number: Written	Number: Written	Number: Written	Number: Oral and practical	TOTAL FOR NUMBER	Patterns: Written	Patterns: Oral and practical	TOTAL FOR PATTERNS	Space and shape: Written	Space and shape: Oral and practical	TOTAL FOR SPACE AND SHAPE	Measurement: Written	TOTAL FOR MEASUREMEN T	Term Total
Week	2	2	3	4	6	7	7		9	9		8	8		10		
(Out of) marks	15	7	15	15	15	10	7	84	10	7	17	10	7	17	10	10	123
LEARNER NAME AND SURNAME																	