

CURRICULUM AND ASSESSMENT POLICY STATEMENT

MATHEMATICS FOUNDATION PHASE

SECTION 4: ASSESSMENT

4.1 INTRODUCTION

People today live in a state of constant change. Ours is a technology rich world, where communication is instant and information is immediately accessible. The way people interact with each other personally, socially and at work has changed forever. Knowledge is growing at exponential rates in many domains, creating new information and possibilities. This is the world that South African learners are entering.

Section four of CAPS has thus been modified to respond to the demanding world that our learners are entering. The way that teaching, learning and assessment are aligned and integrated in the classroom are important for preparing and supporting learners to become responsible citizens, people who are critical and creative thinkers, effective communicators and who are equipped for a successful lifetime of learning where ongoing change is constant. The 21st Century Skills and the demands of the 4th Industrial Revolution are captured in Section 1 of CAPS (1.3(d))

The National Curriculum Statement Grades R-12 aims to produce learners that are able to:

- identify and solve problems and make decisions using critical and creative thinking;
- work effectively as individuals and with others as members of a team;
- organise and manage themselves and their activities responsibly and effectively;
- collect, analyse, organise and critically evaluate information;
- communicate effectively using visual, symbolic and/or language skills in various modes;
- use science and technology effectively and critically showing responsibility towards the environment and the health of others; and
- demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation.

Section 4 of CAPS has been informed by:

- Sections 1, 2 and 3 of Mathematics CAPS for Grades R to 3;
- National Policy Pertaining to the Programme and Promotion Requirements (NPPPPR) of the National Curriculum Statement (NCS) Grades R-12; and
- National Protocol for Assessment (NPA) Grades R-12.

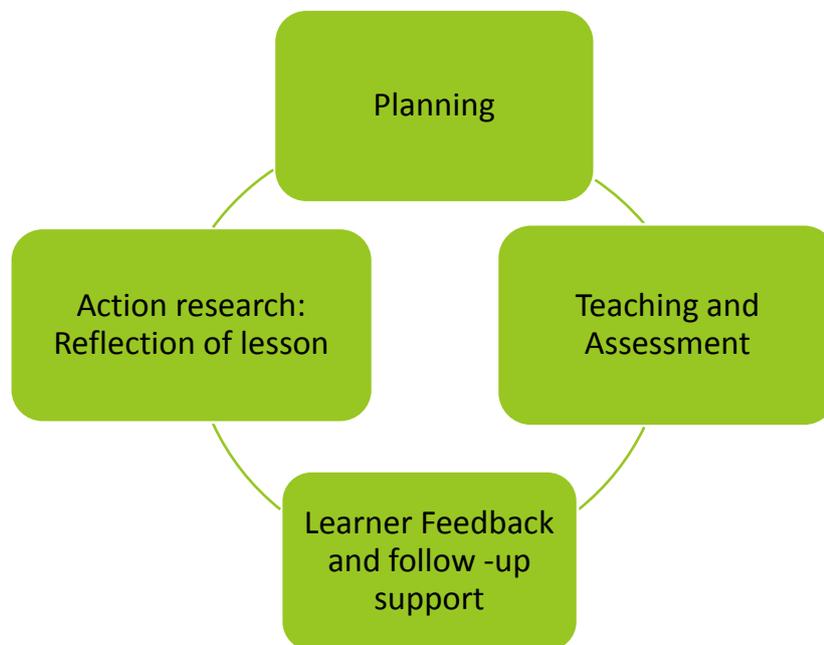
The main purpose in formulating changes to section 4 of CAPS is to mediate the amended Programme of Assessment (POA) which speaks to the reduction of the number of Formal Assessment Tasks (FATs).

It is important to be mindful of the general aims and principles in section 1 of the CAPS document, and in particular to the first general aim which states:

The National Curriculum Statement Grades R-12 gives expression to the knowledge, skills and values worth learning in South African schools. This curriculum aims to ensure that children acquire and apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the curriculum promotes knowledge in local contexts, while being sensitive to global imperatives.

An assessment programme should thus take heed of the importance to not only assess the 'acquisition' of the required knowledge and skills, but also the 'application' of the knowledge and skills. The need to both acquire and apply knowledge and skills should inform and shape the design and practice of assessment activities in the classroom, whether they be Assessment *for* learning or assessment *of* learning.

It must be noted that assessment is an integral component of the Teaching and Learning cycle. Diagram 1: Teaching and Learning Cycle



Assessment is a continuous planned process of gathering, recording, interpreting, using and reporting information about a child's progress and achievement in developing knowledge, skills and attitudes. The central purpose of assessment is to provide information on learner achievement and progress and set the direction for continuous teaching and learning. Assessment goes far beyond testing. It concerns the daily interactions between the teacher and each learner that include moment by moment interactions, observations and actions.

Diagram 2: The importance of assessment-Why do we assess?



The curriculum identifies two main types of assessment:

- Assessment for learning; and
- Assessment of learning.

Table 1 outlines the key elements of the two types of assessment and the key differences between these two types of assessment namely “Assessment of learning” and “Assessment for learning”

Table 1

	Assessment of Learning	Assessment for learning
Why do we assess?	<ul style="list-style-type: none"> ▪ To track and monitor , on each learner’s progress at particular intervals (at the end of lesson, unit of learning, at the end of the term and year) ▪ To inform parents or others of the learner’s proficiency in relation to curriculum learning outcomes 	To enable teachers to determine the next steps necessary to support and promote learning.
What do we assess?	The extent to which learners can apply key concepts, knowledge, skills, and attitudes related to curriculum outcomes	Each learner’s progress and learning needs in relation to the curricular outcomes
How do we assess?	A range of forms of assessment are used to track and monitor what learning has taken place at the end of a lesson, unit, term and year that assess both product and process.	A range of forms of assessment that make learner’s skills and understanding visible.

Table 2

Key differences between Assessment of learning and Assessment for learning:

Assessment of learning	Assessment for learning
Is used for recording and reporting learner’s performance in terms of achievement descriptor (the 7 point scale) in the NPPPR	<ul style="list-style-type: none"> ▪ Determines the learner’s level of understanding during teaching and learning process and should be happening throughout the lesson; ▪ Provides immediate feedback to the teacher as well as the learner. ▪ Not for marks. ▪ Not necessarily recorded. ▪ Not high stakes.

Assessment for learning is the process whereby the teacher uses evidence on a continuous basis to inform teaching and learning. Assessment *for* learning is the process whereby the teacher periodically records children's progress and achievement for reporting to parents and other stakeholders. It helps the teacher and learners to focus on three key questions:

- where are learners now in their learning?
- where are learners going in their learning?
- how will learners get to the next point in their learning?

It usually takes place in the day to day minute by minute interactions between the teacher and learners. Everything the learners ***do, say and make, ask questions, working on task independently or in pairs*** has the potential of providing the teacher with information about what each learner can and cannot do. The teacher should use this information to support learners, make changes to his/her planning, teaching methodologies and assessment methods.

In contrast **Assessment of learning** focusses on medium and long-term assessment and generally **involves assessing the learner at the end of a unit of work, a week, term or a year.** **Assessment of learning** helps the teacher to plan future work, to set new targets and to provide feedback and information for term end and year end assessments. Assessment of learning is used to compile a learner's report which can inform discussion between teacher and parents about each learner's learning strengths and weaknesses.

In the Foundation Phase, Assessment of Learning and Assessment for learning **includes these forms of assessment:**

- observation by the teacher;
- oral discussions,
- practical demonstrations ;and
- written activities.

Only Assessment for Learning is used in Grade R.

4.2 SCHOOL BASED ASSESSMENT (SBA)

The main purpose of School Based Assessment (SBA) is to enable the teacher to make decisions that influence a learner's progress positively. It should therefore be viewed as a fundamental practice that is embedded in the teaching and learning process. It involves the teacher from the beginning to the end; from planning the assessment programme, to identifying and/or developing appropriate assessment tasks and selection of appropriate assessment tools right through to making the assessment judgments. It can be adapted and modified by the teacher to match the teaching and learning goals of the particular class and learners being assessed. It allows the teacher to give constructive feedback to learners.

In the Foundation Phase SBA constitutes 100% which is achieved through continuous assessment practices. That means that learners in grades R-3 should be assessed continuously to monitor their progress and to **make daily instructional decisions.**

The following characteristics of continuous assessment are important.

- takes place over a period of time and is ongoing;
- supports growth and development;
- provides feedback from learning and teaching;
- allows for integrated assessment;
- encourages assessing a number of related concepts/content knowledge/skills within a single activity;
- combines a number of different forms of assessment;
- uses strategies that cater for a variety of learner needs e.g. LSEN, language etc;
- allows competence to be demonstrated in a number of ways;
- is an integral part of teaching and learning;

4.3 GUIDELINES FOR GOOD ASSESSMENT PRACTICES IN FOUNDATION PHASE

- Assessment should take place during whole class activities and during small group focussed sessions.
- Small group focussed sessions are encouraged for formal assessment practices. In the small group focussed sessions the teacher has the opportunity to observe a small group of 8 to 10 learners at a time, so it will take a few days to assess the whole class.
- This strongly links to Chapter 2 where it states “*lessons are most effective when the teacher takes a small group of learners (8 to 10) who have the same ability with her on the floor or at their tables while the rest of the class are engaged in independent activities*”.
- All the materials and apparatus learners normally use should be available as usual, e.g. paper (or their mat books) for problem solving, counters, number charts, etc.
- Formal assessment activities should be integrated with the lesson/s of the day/week.
- This means that the lesson plan should reflect assessment activities. It reinforces that planning, teaching and assessment are integral to the learning process.
- The tasks formally recorded for assessment should form part of the learners’ normal Mathematics lessons.
- Abstract (mental, non-concrete) paper-and-pencil tasks may make it especially difficult for young children to show what they know. Therefore tests and exams are not applicable in the Foundation Phase.
- All learners’ written work and teacher notes should be kept as evidence of a learner’s progress. Although learners enjoy using small writing boards when they work with the teacher on the floor, it is therefore better to give them scrap paper or unlined books to work in, because these provide a lasting record that can be kept as evidence.
- Learners who experience barriers to learning should be given the opportunities to demonstrate their competence in ways that suit their needs. This has the following implications:
 - Some learners may need concrete apparatus for a longer time than their peers.
 - Assessments activities, especially written activities, may have to be broken up into smaller sections for learners who cannot concentrate or work for a long time, or they may be given short breaks during the tasks.

- A variety of assessment instruments should be used, as a learner may find that a particular assessment instrument does not allow her to show what she can do.
- Assessment tasks in Mathematics need to include activities and exercises that are not language based, and not reading dependent, to reflect the real ability of learners.
- **In the Foundation Phase the inability to read should not prevent learners from demonstrating their mathematical competence, because this produces misleading results that are of no use to the learner, the teacher who has to plan the learner's learning sequence, and the education authorities who have to identify problems in the education system.**
- **The usage of Mathematical terms should not be confined to the Language of Learning and Teaching (LoLT), the knowledge of Mathematical concepts in other languages should be accepted as correct**
e.g. On oral question: Ke di apole tse kae tseo o dibonang setshwantshong?
Ke diapole tse THARO / 3 / THREE (depending on the child's context)

4.4 AIMS AND OBJECTIVES OF THE PROGRAMME OF ASSESSMENT (POA)

The POA is aimed at strengthening assessment practices in Grades R-3. The main objectives are to map out:

- *What will be assessed* – this must be done using concepts/content knowledge/skills from the Annual Teaching Plan (ATP) in Chapter 3 during the planning process
- *How it will be assessed* - the applicable forms of assessment (observation, oral, practical or written)
- *What kind of activity must be designed* in order for the learners to demonstrate their understanding of the concepts/content knowledge/skills
- *When formal assessment will take place* - during group work, as a class activity, individual work
- *The tool to be used* - checklist, holistic rubric, set of concepts/content knowledge/skills
- To ensure that assessment activities are differentiated and accommodate the needs and levels of learners

The objectives will be achieved through **Assessment for Learning** and **Assessment of learning practices** which are done continuously.

NB: It is important to remember that **activities are not assessed, but rather the concepts/content knowledge/skills against which activities are developed** where learners are asked to demonstrate knowledge or skills acquired. The end product as well as the process learners use to complete the activity are assessed. The demonstration of understanding of the concept is what is important at this level. Learners should therefore be observed while they are busy with the activities and notes made in the observation book or on an observation sheet, or using a checklist or a rubric. The final product of the task should be included in the overall rating.

4.5 PROGRAMME OF ASSESSMENT

The programme of assessment (POA) will comprise one Formal Assessment Task per subject, per grade, per term. Teachers should plan together for assessment, make sure that the assessment activities developed allow learners to demonstrate their understanding of the concepts/content knowledge/skills and decide on the final date by which these activities will be completed. This planning and activity development will be internally monitored at school level to determine the extent to which the desired outcome of assessment will be achieved. Monitoring can also be implemented at district, provincial and national level for quality assurance purposes.

The table below indicates the number of Formal Assessment Tasks per grade, per term and per year:

Table 1	Number of Formal Assessment Tasks				
Grade 1	Term 1	Term 2	Term 3	Term 4	Total
Home Language	1	1	1	1	4
First Additional Language	1	1	1	1	4
Mathematics	1	1	1	1	4
Life Skills	1	1	1	1	4
Total	4	4	4	4	16
	Number of Formal Assessment Tasks				
Grade 2	Term 1	Term 2	Term 3	Term 4	Total
Home Language	1	1	1	1	4
First Additional Language	1	1	1	1	4
Mathematics	1	1	1	1	4
Life Skills	1	1	1	1	4
Total	4	4	4	4	16
	Number of Formal Assessment Tasks				
Grades 3	Term 1	Term 2	Term 3	Term 4	Total
Home Language	1	1	1	1	4
First Additional Language	1	1	1	1	4
Mathematics	1	1	1	1	4
Life Skills	1	1	1	1	4
Total	4	4	4	4	16

According to the National Protocol for Assessment Grade R-12, "The national codes and their descriptions should be used for recording and reporting learner performance in the Foundation Phase (page 18, 1). These codes and descriptors which indicate learners' achievement levels on a developmental path are more meaningful than marks for Foundation Phase learner.

The main purpose of assessing learners should be to enhance individual growth and development and to monitor the progress of learners. Good assessment helps teachers to know whether learners are performing according to their full potential and are making progress towards the level of achievement required for progression.

Formal Assessment Tasks (FAT)

The National Protocol for Assessment Grades R-12 defines a **Formal Assessment Task** as;

“A systematic way of assessment used by teacher to determine how well learners are progressing in a grade and in a particular subject” (page ix). Teachers thus need to have an organized, methodical approach to the way in which they assess learners.

A **Formal Assessment Task** is, therefore, a *set of concepts/content knowledge/skills* used to design activities for assessment purposes. The concepts/content knowledge/skills are systematically assessed using a variety of forms of assessment such as observation, oral, practical and written, and the results recorded on a holistic rubric.

Forms of assessment will differ from term to term and grade to grade according to the stages of cognitive development and metacognition ability of learners. However, it is important that all grades include all forms of assessment in each formal assessment task. These will be guided by the concepts/content knowledge/skills selected. For example, in Grade 3 the concepts/content knowledge/skills “Identify, recognise and read number symbols” implies an oral activity for assessment rather than a written one.

The skills, content and concepts to be assessed should be those that have been taught during a unit of work. When the teacher assesses the skills, knowledge and concepts taught, learners should have differentiated or several opportunities to demonstrate what they know and can do.

It is also important to note that each formal assessment task should not be seen as a single event or test, but must comply with the principles of continuous assessment at all times. The learning goals and focus of each task must be assessed in an integrated way through a range of activities. Some learning goals can be assessed at the same time, but others will be assessed at different times. For example, if learners’ skip counting skills are being assessed, their ability to do the following could be assessed in the same exercise or event:

- Complete counting sequences
- Read and write number symbols
- Count.

However, if an assessment task contains both solving problems by grouping or sharing, and assessing learners’ ability to measure capacity; it is more likely that these aspects of Mathematics will be assessed at different times and in different forms.

Assessment tasks and their related activities should be jointly planned by the grade specific teachers. After the planning process, these should be submitted to the Foundation Phase (FP) Head of Department (HOD) to monitor and supervise FATs in all grades. The HOD should provide follow up support and constructive feedback to the teachers. This practice

creates opportunities for the HOD to mentor (individual teachers) and coach FP teachers in order to strengthen assessment practices.

Assessment activities should be differentiated and done in many ways to ensure that each learner is able to demonstrate what he or she knows and can do. Levels of difficulty within tasks should be identified and follow up support provided for those learners who need it through activity support materials and carefully scaffolded instructions

- There can be face-to-face engagements with the teacher one learner at a time during small group sessions (?)
- Practical differentiation of support materials (for example, through the use of different levels of text)
- as written activity done independently by each individual learner, and scaffolded to accommodate different learning styles and levels of need.

When planning and implementing an assessment task the teacher should ensure that:

- the content, concepts and skills that are being assessed are aligned to curriculum and are cognitively appropriate for the grade;
- the content, skills and concepts have already been taught and different examples are used for the assessment activity;
- differentiated assessment practices should be used to accommodate all ability levels and learning styles;
- resources are available for learners to enable them to complete the activity;
- the evidence is recorded (checklists, assessment rubrics, learner's class work books, worksheets etc.); and
- follow up interventions such as remedial (under-performing learners) and enrichment (top performing) activities should be done.

Informal assessment activities are not always recorded but when recorded it can be done using checklists, written recording learner's books and anecdotal notes. This evidence should inform the teacher's professional judgement with regard to learner performance in the event of illness or other contextual factors. Therefore there must be evidence of informal assessment.

In order to design a programme of assessment

- structure your assessment in such a way that there is a balance. This will assist in not assessing the same skills and concepts while neglecting others;
- use the Grade overview as a guide to ensure content coverage
 - Grade 1 is found on pages 40 to 55;
 - Grade 2 is found on pages 56 to 72 and
 - Grade 3 is found on pages 73 to 91
- content coverage is per term as indicated on the ATP in Chapter 3 and not per week; and

- selection of content/skills and knowledge must not leave a gap throughout the four terms.

It is important to take cognisance of the fact that the clarification notes are only guidelines and must be read with the understanding that this is not policy and are not to be used for assessment purposes.

The following table provides an **example** of how a teacher can design the programme of assessment for each term.

Topics	Key Elements	Concepts/content knowledge/skills
NUMBERS, OPERATIONS AND RELATIONSHIPS	Number concept	Any 2 concepts/content knowledge/skills from “Count with whole numbers” relevant to the learners level when being assessed
		Any 3 concepts/content knowledge/skills from “Represent whole numbers” and “Describe, compare and order whole numbers” relevant to the learners level when being assessed
		Any 2 concepts/content knowledge/skills from “Place value” relevant to the learners level when being assessed
	Solve problems	Any 2 concepts/content knowledge/skills relevant to the learners level when being assessed
	Calculations	Any 3 concepts/content knowledge/skills relevant to the learners level when being assessed
PATTERNS, FUNCTIONS AND ALGEBRA	Geometric patterns	Any 1 concepts/content knowledge/skills relevant to the learners level when being assessed
	Number patterns	Any 1 concepts/content knowledge/skills relevant to the learners level when being assessed
SPACE AND SHAPE	3-D objects	Any 1 concepts/content knowledge/skills relevant to the learners level when being assessed
	2-D shapes	Any 2 concepts/content knowledge/skills relevant to the learners level when being assessed
MEASUREMENT	Time	Any 1 concepts/content knowledge/skills relevant to the learners level when being assessed
	Capacity	Any 1 concepts/content knowledge/skills relevant to the learners level when being assessed
DATA HANDLING	Collect, organise, represent, analyse and interpret data	Any 1 concepts/content knowledge/skills relevant to the learners level when being assessed

4.6 FORMAL ASSESSMENT

Formal assessments must be accurate and based on factual evidence to prove the learner has reached the competence required. Therefore they cannot be based on one piece of evidence. Evidence is collected over a period of time and competence should be demonstrated in a variety of ways. The skills, content and concepts to be assessed should be those that have been taught during a unit of work. When the teacher assesses the skills,

knowledge and concepts taught, learners should have different opportunities to demonstrate what they know and can do. Also important to note is that in the Foundation Phase, a formal assessment task should not be a single event or test but comply with the principles of continuous assessment at all times.

Methods of assessment should recognize that children need familiar contexts to be able to demonstrate their abilities. Each Formal Assessment Task should not be seen as a single event or test. Some of the concepts/content knowledge/skills can be assessed at the same time, but others will be assessed at different times.

An example of concepts/content knowledge/skills and related activities	
Concepts/content knowledge/skills	Activities that can be used to assess both in the same activity
Add the same number repeatedly to 20	<ul style="list-style-type: none"> • <i>Oral</i>: Count in 2's from 2 to 20 • <i>Practical</i>: Count the number of eyes in the group by counting in multiples of 2. • <i>Written</i>: Complete the number sentence by adding 2
Count forwards in 2s	<ul style="list-style-type: none"> - $4 + _ + _ + _ = 10$ - $4 + _ + _ + _ + _ = ?$ - $16 = 8 + _ + _ + _ + _$ - 2, 4, $_ , _ , _ , 12, _ , _ , 18, _$

Formal assessment tasks will happen mainly in small group focused sessions and it will take a few days to assess the whole class. All the materials and apparatus that learners normally use should be available as usual in all grades, (counters, number charts, etc.) as a range of cognitive levels and abilities of learners must be catered for. The design of these tasks should cover the content of the subject in a variety of ways and a variety of forms of assessment (observation, oral, practical and written) should be used to give each learner the opportunity to demonstrate what he or she can do. This is because some learners are more easily able to show what they know in some forms of assessment. For example,

- Some learners who find it difficult to read are good at Mathematics.
- Other learners may not be at the required level of competence in the language of learning and teaching.

However, cognisance should also be taken of what is being assessed. Certain knowledge and skills are best assessed with particular forms of assessment. Different kinds of assessments are appropriate to the skills and concepts necessary for different topics at different age groups.

When planning and implementing an assessment task the teacher should ensure that:

- the content, concepts and skills that are being assessed are aligned to curriculum and are cognitively appropriate for the grade;
- the content, skills and concepts have already been taught and different examples are used for the assessment activity;
- differentiated assessment practices should be used to accommodate all ability levels and learning styles;

- follow up interventions for underperforming learners are in place. Where remedial interventions are required, the school-based support team should be consulted. Enrichment should be provided for top performing learners;
- it is useful to use an observation checklist to assess learners measuring in the early grades. Rubrics can be used to evaluate learner's problem solving skills.
- resources are available for learners to enable them to complete the activity; and
- the evidence is recorded (checklists, assessment rubrics, learner's class work books, worksheets etc.) by learners or teachers depending on the task/ activity;

Not everything in the curriculum needs to be **formally** assessed during the formal assessment tasks. What should be assessed in **every** formal assessment task are the following:

- How far the learner can count concrete objects or pictures correctly, and write and read the number symbols.
- Whether the learner can understand and do a straightforward
 - grouping problem and
 - sharing problem.
- Whether the learner can communicate her/his thinking by explaining verbally and by recording her/his thinking in a grade-appropriate way, e.g. by making marks in grade 1 or by using number symbols in grade 3.

These three aspects are singled out because they form the backbone of the learner's numerical development, and should be monitored closely to identify problems as quickly as possible. The division problem types are emphasised because the methods learners develop to solve division problems have a major positive effect on their developing understanding of the properties of number and operations.

Example of a Formal Assessment Task for the End of Grade 2

Activity 1: With the teacher

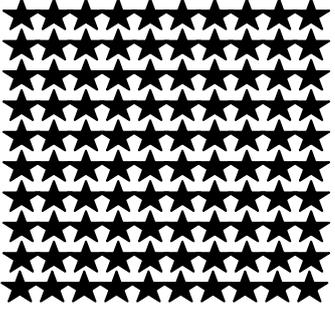
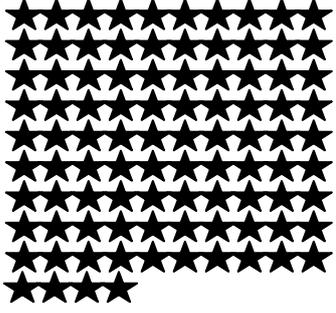
The teacher works with 8 learners on the floor. They sit in a semi-circle in front of her so that she can see what each learner does. Each learner has a sheet of paper or a mat book and a pencil, also a set of flard cards.

1. Give each learner 12 counters and ask them to arrange their counters in groups of 3. Now let them take turns to count the groups of 3, e.g. the first learner counts 3; 6; 9; 12, the next learner continues 15; 18; 21; 24, etc. Start again with 3 if the numbers become too big.
2. Give each learner 20 counters and ask them to arrange the numbers in groups of 10s. Now let them take turns to count the groups of 10, e.g. 10; 20; 30; 40; 50; etc. Have them show the result with their flard cards, by writing the number symbol and by writing it in expanded notation, e.g. 160 is 100 and 60. Repeat the activity, stopping at different points to give all the learners an opportunity to show a number.
3. Give the following problems in context for them to solve in any way they like. They may make marks/drawings and/or use counters.
 - a) A T-shirt costs R20. Andile has R90. How many T-shirts can he buy?

- b) 3 friends share 4 chocolate bars equally. How much chocolate must each friend get so that there is nothing left over?
- c) Sita wants to buy a skirt that costs R80. She already has R67. How much money does she still need?

Activity 2: Worksheet

This is part of a worksheet that may be used for the end of grade 2.

Name: _____		Date: _____																			
<p>1. How many stars?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p style="text-align: right; margin-right: 50px;">_____ stars</p>																					
<p>2. Complete:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding: 0 20px;">121;</td> <td style="padding: 0 20px;">131;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____ .</td> </tr> <tr> <td style="padding: 0 20px;">176;</td> <td style="padding: 0 20px;">178;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____ .</td> </tr> <tr> <td style="padding: 0 20px;">96;</td> <td style="padding: 0 20px;">97;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____;</td> <td style="padding: 0 20px;">_____ .</td> </tr> </table>				121;	131;	_____;	_____;	_____;	_____ .	176;	178;	_____;	_____;	_____;	_____ .	96;	97;	_____;	_____;	_____;	_____ .
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<p>3. Double 35 = _____</p> <p>Half of 90 = _____</p>																					
<p>4. What is the time? _____</p> <div style="text-align: center; margin: 10px 0;">  </div>																					
<p>5. Bobby played soccer from 10 minutes past 3 o'clock until 4 o'clock. How long did he play soccer?</p> <p style="text-align: center; margin-top: 20px;">_____</p>																					

Checklist

Note that the scores for the concepts/content knowledge/skills in the checklist were obtained from the observations made by the teacher when she worked with the groups on the floor as well as from the worksheets completed by the learners.

Learner: _____

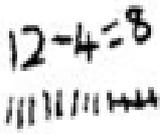
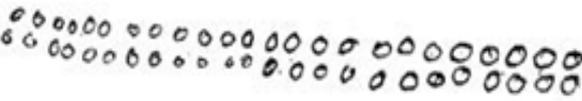
7. Rating word problems

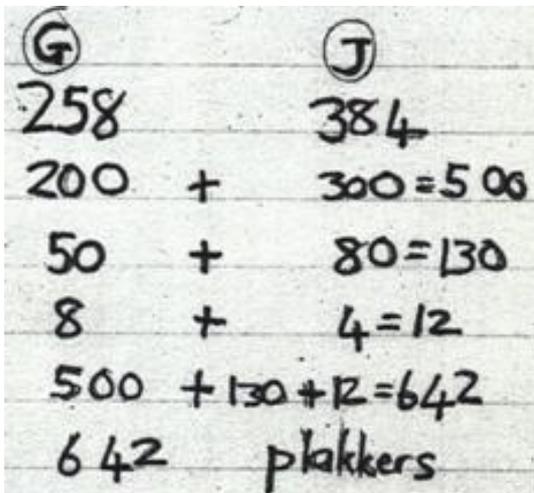
Word Problems are central to learners understanding Mathematics. It is through Word Problems that learners acquire an understanding of the four operations and fractions as the words provide the context. It is, therefore, important to be able to rate them accurately and this is done using a rubric.

Rubric for problems in context

Key	Does not know where to start or does something inappropriate.	1
	Understands problem and starts but cannot finish correctly, or uses marks (drawings) or counters.	2
	Understands problem and solves using numbers. Can explain. .	3
	Completes problem correctly using number knowledge and techniques like breaking down and recombining numbers, doubling, rounding and compensating, etc. Can explain own and others' thinking competently.	4

Using this rubric, the following are examples of how learners' work was rated. Note that the rating will depend on the learner's grade and on the time of the year.

<i>A dog has 4 legs. How many legs do 12 dogs have?</i>	
	Rating: 1. The learner does not understand the problem.
<p>Een hond het 4 pote. Hoeveel pote het 12 honde altesaam? 4 8</p> 	Rating: 4 for a grade 1 learner, 2 for a grade 3 learner.
<i>The farmer plants 6 rows of trees with 13 trees in each row. How many trees does he plant all together?</i>	

$13 + 13 + 13 + 13 + 13 + 13 = 78$	<p>Rating: 4 for a grade 2 learner, 3 for a grade 3 learner.</p>
$6 \times 13 = 78$ $6 \times 10 = 60$ $6 \times 3 = 18$ <p>klome</p>	<p>Rating: 4 for a grade 3 learner.</p>
$\begin{array}{r} 13 \\ \times 6 \\ \hline \hline \end{array}$	<p>Rating: 2. This learner understands the problem and identifies it as a multiplication, but she has been taught the method too early, cannot use it, but cannot solve the problem in any other way anymore. The taught method has therefore disempowered her, cutting her off from her own methods.</p>
<p>Thabo has to put 96 cookies in bags. He has to put 6 cookies in a bag. How many bags does he need?</p>	
$\begin{array}{r} 196 \\ + 6 \\ \hline 162 \end{array}$	<p>Rating: 1. The learner does not understand the problem and tries to apply the column addition method he has been taught (and should not have been taught). He adds the 6 to both columns. Teaching the learner a method he cannot yet understand, confuses him so much that he is not willing or able to make sense of the problem.</p>
<p>Gino has 258 stickers and Josie has 384 stickers. How many stickers do they have all together?</p>	
	<p>Rating: 4 for grade 3. This method is correct, shows a Level 3 understanding of number and is neatly and clearly presented.</p>
<p>What is half of 237?</p>	
$237 \quad \begin{array}{r} 100 \\ 15 \\ 3 \\ \frac{1}{2} \end{array} \quad \begin{array}{r} 100 \\ 15 \\ 3 \\ \frac{1}{2} \end{array} = 118\frac{1}{2}$	<p>Rating: 4 for grade 3. This method is correct, shows a Level 3 understanding of number and is clearly presented.</p>

8. WEIGHTING OF CONTENT AREAS

The weightings in the CAPS will be used **to inform** the compliance of any administrative system e.g. SA SAMS. The table indicates the weightings to be used.

IMPLEMENTATION OF WEIGHTING OF CONTENTS AREAS						
Content Area	Weightings per Content Area			Weightings per administrative system		
	Grade 1	Grade 2	Grade 3	Grade 1	Grade 2	Grade 3
Numbers, Operations and Relationships	65%	60%	58%	65%	60%	58%
Patterns, Functions and Algebra	10%	10%	10%	10%	10%	10%
Space and shape	11%	13%	13%	11%	13%	13%
Measurement	9%	12%	14%	9%	12%	14%
Data Handling	5%	5%	5%	5%	5%	5%

The weighting of mathematics content areas serves two primary purposes: firstly the weighting gives guidance on the amount of time needed to address the content within each content area adequately; secondly the weighting gives guidance on the spread of content in assessment. The weighting of the content areas is not the same for each grade in the Foundation Phase.

In Grade R - 3, it is important that the area of Numbers, Operations and Relationships is the main focus of Mathematics. Learners need to exit the Foundation Phase with a secure number sense and operational fluency. The aim is for learners to be competent and confident with numbers and calculations.

The following is **an example** of the number of concepts/content knowledge/skills required in a Formal Assessment Task to comply with the weightings provided. Note: this is not the number of activities, but the number of concepts/content knowledge/skills to be assessed. Often more than one concept/skill can be assessed in the same activity.

This example has been worked out according to using 20 concepts/content knowledge/skills in the Formal Assessment Task. However, if the Formal Assessment Task has more than this, the number of concepts/skills must still be according to the weighting (e.g. if there are 30 concepts/skills, then 65% of 30 is 19.5 and then round off)

Topics	Weighting per grade with required number of concepts/skills					
	Grade 1		Grade 2		Grade 3	
	Weighting	Number of concepts/skills	Weighting	Number of concepts/skills	Weighting	Number of concepts/skills
Numbers, Operations and Relationships	65%	13	60%	12	58%	11.5
Patterns	10%	2	10%	2	10%	2
Space and Shape	11%	2.2	13%	2.6	13%	2.6
Measurement	9%	1.8	12%	2.4	14%	2.8
Data Handling	5%	1	5%	1	5%	1

9. RECORDING AND REPORTING

Recording:

- is a process in which the teacher documents the level of a learner's performance in a specific assessment activity;
- indicates learner progress towards the achievement of the knowledge as prescribed in the Curriculum and Assessment Policy Statements;
- should provide evidence of the learner's conceptual progression within a grade and her / his readiness to progress or be promoted to the next grade; and
- should also be used to verify the progress made by teachers and learners in the teaching and learning process.

Reporting:

- is a process of communicating learner performance to learners, parents, schools, and other stakeholders. Learner performance can be reported in a number of ways. These include report cards, parents' meetings, school visitation days, parent-teacher conferences, phone calls, letters, class or school newsletters, and so on.
- Report Cards should only contain the final rating for the subject, and not contain a rating for each Content Area. This is to avoid a misinterpretation of the learners' abilities because of the weighting of the Content Areas.
- Comments must contain information on the learners' holistic performance.

Because assessment is 100% continuous, the learners' level of progress is continually monitored throughout the year. When deciding on the progression of a child to the next grade, Formal Assessment Tasks in Term 3 and 4 should provide sufficient information to form an accurate description of each learner's progress and readiness for the next grade. Teachers should take cognisance of the following:

- Some learners start off the year doing well as the work in the first term is often revision of the previous year's work. However as the year progresses and the concepts become more challenging, their progress is not maintained. These learners may have obtained a 7 in Term 1, a 6 in Term 2, a 4 in Term 3 and a 1 in Term 4. If these codes are aggregated, the learner will progress in spite of falling further and further behind. By using Term 3 and 4 codes, it will be evident that the learner needs to be retained.

- Some learners start off the year making slow progress, but as they mature and their cognitive skills improve, they begin to make rapid progress. These learners may have obtained a 1 in Term 1, a 1 in Term 2, a 2 in Term 3 and a 6 in Term 4. If these codes are aggregated, the learner will not progress in spite of showing positive improvement. By using Term 3 and 4 codes, it will be evident that the learner need to progress to the next grade.
- Some learners may not be consistent in their progress due to external factors such as health, social problems and so on. When aggregating the four terms codes, these learners may be disadvantaged and attention should be focussed on the context of the learner rather than the codes when making a decision on progression.

Although Terms 3 and 4 FAT's should be used for progression purposes, Terms 1 and 2 may serve as a reference when taking the complete learner and their context into account when making a final decision.

The following are examples of ways to record. However, because planning and assessment are part of the same continuum, these examples could also be used for planning purposes

Exemplar: Mathematics: GRADE 3: TERM 1: Checklist for recording assessment

	Numbers, Operations & Relationships										Measurement	Comments	
	Counting: Group to at least 200 objects to estimate and count reliably.	Count forwards and backwards in: 1s from any number between 0 and 200	10s from any multiple of 10 between 0 and 200	5s from any multiple of 5 between 0 and 200	2s from any multiple of 2 between 0 and 200	3s from any multiple of 3 between 0 and 200	4s from any multiple of 4 between 0 and 200 100s to at least 500	Identify, recognise and read number symbols up to 500	Mental Mathematics: Rapidly recall Recall addition and subtraction facts to 20	Mental Mathematics: Rapidly recall Compare numbers to 200 and say which is 1/2/3/4 /5/10 more/less			Recognise place value of numbers 11 to 99 Know what each digit represents Decompose two-digit numbers into multiple of tens and ones/units Identify and state the value of each digit
✓ - achieved ✗ - not yet • - almost													
Starting Date													
Final date													
Oral, Practical or Written													
Names of learners													
1													
2													
3													
4													
5													
6													
7													

An example of a Grade 3 term1 assessment task.

KEY: ✓ = competent ✗ = needs improvement O = Oral Pr = Practical Wr = Written
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Key Elements		Concepts/content knowledge/skills	O, Pr, Wr	✓ ✗
NUMBERS, OPERATIONS AND RELATIONSHIPS	Number concept	Groups and counts up to 200 objects {by forming structured (grouped) collections with actual objects e.g. forming groups of 10 objects and then counting the groups ten, twenty, thirty, forty, forty-one, forty-two, forty-three.}		
		Compares and orders whole numbers up to 99		
		Reads and writes number symbols from 0 to 500		
		Decomposes 2-digit numbers		
	Solve problems (2 ✓)	Records the result of a counting task by – <i>writing the number symbol</i> – <i>showing it with flard cards</i> – <i>writing it in expanded notation e.g. 63 is 60 and 3.</i>		
			Solves word problems in context involving addition, subtraction with answers up to 99 using one of the following - building up and breaking down numbers - number lines - doubling and halving - rounding off to 10 and explains own solution to problems	
	Money	Solves money problems involving totals and change in rands and cents		
	Calculations	Develops number relationships, e.g. 25 is less than 30 or half of 50, etc., and breaks down and builds up numbers to at least 300 in different ways, e.g. $157 = 140 + 10 + 7$; $157 = 160 - 3$. Doubles and halves both odd and even numbers 1 to 100 Adds and subtracts whole 10s, e.g. $201 + 10 = 211$. Adds and subtracts 2-digit numbers in any way learners find convenient, e.g. by breaking up numbers.		
PATTERNS, FINCTIONS AND ALGEBRA	Number patterns	Completes number sequences, counting forwards and backwards • in ones between 0 and 200 e.g. 199, 198, 197, __, __, __, 193 • in fives between 0 – 200 e.g. 155, 160, 165, __, __, __, 185 • in tens between 0 – 200 e.g. 100, 110, 120, __, __, 150, • in twos between 0 – 200 e.g. 156, 154, 152, __, __, 146, __,		
SPACE AND SHAPE	2-D shapes	Recognises and names circles, triangles, squares and rectangles		
		Sorts shapes into those with straight sides and those with round sides		
MEASUREME NT	Time	Reads dates on a calendar		
		Tells time on an analogue clock in hours, half hours and quarter hours		
	Capacity	Estimates, compares, orders containers using non-standard measures		
		Orders everyday products whose capacity is written in millimetres		

DATA HANDLING		Collect data about the class or school to answer questions posed by the teacher		
number of ✓ out of 20 =				FINAL

Rubric for each problem	
Does not know where to start or does something inappropriate.	1
Understands problem and starts but cannot finish correctly.	2
Understands problem and solves using drawings (marks) or counters. Can explain. May make small errors.	3
Completes problem correctly. Can explain own and others' thinking competently.	4

FINAL RATING FOR ASSESSMENT TASK						
This is obtained by using the final rating for the task + ½ the score for the problems						
1 Not achieved	2 Elementary achievement	3 Moderate achievement	4 Adequate achievement	5 Substantial achievement	6 Meritorious achievement	7 Outstanding achievement
1 to 3	4 to 5	6 to 7	8 to 10	11 to 14	15 to 17	18 to 20

The grade teachers decide which activities will be oral, practical, written for this task before beginning the task. This decision must be based on the concept/skill being assessed. Doing this helps to see that all forms are included and there is a balance in the task. Activities are then designed accordingly. It also provides a record for future e.g. if counting is assessed orally this time, next time it must be assessed practically or written. This page plus details of all the activities e.g. worksheets, and detailed lesson plans for the oral and practical activities forms the teacher's record of assessment. The record sheet/book is a record of each child.