2021
REVISED CURRICULUM AND ASSESSMENT PLANS
MATHEMATICS
GRADE: R - 3
IMPLEMENTATION: January 2021
1. Purpose

2. Curriculum
   - Purpose
   - Principles
   - Overview
   - Readiness & Baseline Assessments
   - Annual Teaching Plan 2021
   - Programme of Assessment (POA)

3. Conclusion
1. Purpose

- To mediate the **implementation of the 2021 Grade 1-3 Recovery ATPs**, as per **Circular S13 of 2020**, for purposes of strengthening **pre-knowledge**, **consolidation** and **revision** of fundamental **concepts**, the entrenchment of **Assessment for Learning** as a pedagogical approach to address the learning losses incurred in 2020;

- To ensure that **meaningful teaching continues** during the remaining teaching time as per the school calendar for **TERM 1**, amid **social distancing protocols**;

- To assist teachers with **guided pacing and sequencing** of curriculum content and assessment;
1. Purpose...

• To enable teachers to **cover the core skills and knowledge** in each grade within the available time.

• To assist teachers with **planning** for the **different forms of assessment**; and

• To ensure learners are **adequately prepared** for the **subsequent year/s** in terms of skills, knowledge, attitudes and values.
CURRICULUM 2021 TERM 1

6σ
2. PRINCIPLES

For the 2021-2023 the DBE is committed to:

• provide carefully planned curriculum guidelines which are CAPS compliant – and aims to ensure that all the core concepts, knowledge and skills are covered
• Teachers are centre of all teaching and the work of the teachers enable learners to achieve the desired outcomes each year.
• DBE plans are aimed at assisting teachers in the critical work they carry out.
• Initiative that enables good teaching in less than optimal conditions is applauded and supported.
• Teachers are encouraged to use their professional judgement, and available resources in order to achieve the goals set.

We need a more streamlined curriculum. We need to build on the curriculum trimming suggested in 2020, and reorganise the content deep and meaningful learning can take place. This is an iterative process and will be carried out over the next 3 years, term by term, progressively, in order to restore the full content scope by the end of 2023.

Curriculum planning will be carried out in consultation with the whole mathematics education community to ensure that it is of the highest possible standard and aligned with the needs of learners and teachers.

Deeper learning is enabled when the planned concepts are taught, the links are recognised and the practise is enabled for mastery.

Teachers must use their professional judgement when they plan for and do the assessments.

There is no time for assessment that does not inform the way forward. Teachers should do the error analysis on the immediate recognition of the learning (written, oral, practical; formal, informal) and think about how to address these

The use of concrete apparatus are strongly advocated. Teachers must be creative and innovative. The DBE workbook is a resource given to every South African learner. Optimal use of this together with other-available resources, is critical and is encouraged.
The Phase Overview

The Content Overview shows the Grade 1 to 3 Content Areas as follows:

- **specification of concepts** (skills and knowledge)
- **progression of concepts** (skills and knowledge)
- maps **grade specific, concepts** (skills and knowledge) to be acquired in **Grade 1 to 3**.
## Grade 1 Content Overview

### Term 1
- **Numbers, Operations and Relationships**
  - Count concrete objects up to 10
  - Count forward and backward to 20
  - Read number names and symbols 20
  - Write number names and symbols up to 5
  - Compare and ordering numbers to 5
  - Number bonds to 5
  - Practical addition and subtraction in context and context free up to 5
  - Grouping and sharing up to 5
- **Patterns, Functions and Algebra**
  - Geometric patterns (integrated with Data handling)
  - Number patterns up to 20 (integrated into counting)
- **Space and Shape**
  - 3-D objects
  - Position, orientation and views
- **Measurement**
  - Time
  - Mass
- **Data Handling**
  - Collect and sort objects
  - Represent sorted objects
  - Discuss sorted collections (integrated with Time; Birthday calendar)

### Term 2
- **Numbers, Operations and Relationships**
  - Count concrete objects up to 20
  - Count forward and backward to 50
  - Read number symbols 50
  - Write number names and symbols up to 10
  - Compare and order numbers to 20
  - Place value
  - Number bonds to 10
  - Practical addition and subtraction in context and context free up to 10
  - Grouping and sharing up to 10
- **Patterns, Functions and Algebra**
  - Geometric patterns
  - Number patterns up to 50 (integrated into counting)
- **Space and Shape**
  - 3-D objects
  - 2-D shapes
- **Measurement**
  - Time
  - Length
- **Data Handling**
  - (Integrated with other content areas)

### Term 3
- **Numbers, Operations and Relationships**
  - Count concrete objects up to 50
  - Count forward and backward to 100
  - Read number symbols 100
  - Write number symbols up to 50
  - Compare and order numbers to 50
  - Place value
  - Number bonds to 10
  - Practical addition and subtraction in context and context free up to 20
  - Repeated addition up to 20
  - Grouping and sharing up to 20
  - Money
- **Patterns, Functions and Algebra**
  - Number patterns up to 100 (integrated into counting)
- **Space and Shape**
  - Position, orientation and views
- **Measurement**
  - Time
  - Volume and Capacity
- **Data Handling**
  - (Integrated with other content areas)

### Term 4
- **Numbers, Operations and Relationships**
  - Count concrete objects up to 50
  - Count forward and backward to 100
  - Read and write number symbols 100
  - Compare and order numbers to 50
  - Place value
  - Number bonds to 10
  - Mental addition and subtraction in context and context free up to 20
  - Repeated addition up to 20
- **Patterns, Functions and Algebra**
  - Number patterns up to 100
- **Space and Shape**
  - Position, orientation and views
- **Measurement**
  - Time
- **Data Handling**
  - (Integrated with other content areas)

### Assessment
- **Term 1-3**: Observation and continuous assessment (record observations daily) integrated into lesson time per DBE directive
- **Term 4**: Observation and continuous assessment (record observations daily) integrated into lesson time
- **Final formative assessment at the end of term**: (recording and progression meetings-2 weeks)

### Assessment Types: Oral, Practical and Written
## GRADE 2 CONTENT OVERVIEW

<table>
<thead>
<tr>
<th>CONTENT AREA</th>
<th>TERM 1 (10 WEEKS)</th>
<th>TERM 2 (11 WEEKS)</th>
<th>TERM 3 (11 WEEKS)</th>
<th>TERM 4 (10 WEEKS)</th>
</tr>
</thead>
</table>
| **NUMBERS, OPERATIONS AND RELATIONSHIPS** | • Count concrete objects up to 50  
• Count forwards and backwards to 100  
• Read and write number symbols 50  
• Comparing and ordering numbers to 50  
• Place value  
• Number bonds to 10  
• Practical addition and subtraction in context and context free up to 20  
• Repeated addition leading to multiplication  
• Money | • Count concrete objects up to 100  
• Count forwards and backwards to 100  
• Read number symbols 100  
• Write number symbols up to 100  
• Compare and order numbers to 100  
• Place value  
• Number bonds to 10  
• Practical addition and subtraction in context and context free up to 50  
• Repeated addition leading to multiplication  
• Money | • Count concrete objects up to 200  
• Count forwards and backwards to 200  
• Read number symbols 200  
• Write number symbols up to 200  
• Compare and order numbers to 200  
• Place value  
• Number bonds to 10  
• Practical addition and subtraction in context and context free up to 99  
• Multiplication  
• Grouping and sharing up to 99  
• Money (integrated into word problem solving)  
• Sharing leading to fractions | • Count concrete objects up to 200  
• Place value  
• Number bonds to 10  
• Practical addition and subtraction in context and context free up to 99  
• Multiplication  
• Grouping and sharing up to 99  
• Money (integrated into word problem solving)  
• Sharing leading to fractions |
| **PATTERNS, FUNCTIONS AND ALGEBRA** | • Geometric patterns  
Number patterns up to 100 | • Geometric patterns  
Number patterns up to 100 (integrated into 2-D shapes) | • Number patterns up to 200  
Number patterns (integrated into counting) | • Number patterns up to 200  
Number patterns (integrated into counting) |
| **SPACE AND SHAPE** | • 3-D objects (integrated with Data handling) | • 2-D shapes (integrated with Data handling)  
• Symmetry | • Position and directions (around the classroom) | • Time  
• (Integrated into 4 basic operations through word problems) |
| **MEASUREMENT** | • Time  
Length (metre) | • Time  
• Mass (kilograms) | • Time  
• Volume and capacity (litre) | • Time  
• (Integrated into 4 basic operations through word problems) |
| **DATA HANDLING** | • Collect and sort objects  
Represent sorted objects  
Discuss sorted collections (pictographs with one-to-one correspondence)  
• Analyse and interpret data | • (Integrated with other content areas)  
• (Integrated with other content areas) | • (Integrated with other content areas)  
• (Integrated with other content areas) | • (Integrated with other content areas)  
• (Integrated with other content areas) |

### ASSESSMENT
- **TERM 1-3:** Observation and continuous assessment (record observations daily) integrated into lesson time per DBE directive
- **TERM 4:** Observation and continuous assessment (record observations daily) integrated into lesson time  
Final formative assessment at the end of term (recording and progression meetings - 2 weeks)

ASSESSMENT TYPES: Oral, Practical and Written
# Grade 3 Content Overview

## Term 1 (10 Weeks)
- **Numbers, Operations and Relationships**
  - Numbers up to 200 with place value,
  - Addition and subtraction of 2-digit-numbers,
  - RSA money (solve money sums up to R100 and convert rand to cents)
  - Multiplication up to 5 times
  - Grouping and sharing leading to division

- **Patterns, Functions and Algebra**
  - Geometric patterns (Integrated with 3-D objects)
  - Number patterns (Integrated into counting)

- **Space and Shape**
  - 3-D objects (Integrated with Geometric patterns)
  - 2-D shapes
  - Symmetry

- **Measurement**
  - Time
  - Mass (kg, g)
  - Length (m, cm), Area and perimeter

- **Data Handling**
  - Tally tables, Tables, Bar graphs
  - (Integrated with other content areas)

## Term 2 (11 Weeks)
- **Numbers, Operations and Relationships**
  - Multiplication table (6-9 times),
  - Division with remainder and how to deal with the remainder

- **Patterns, Functions and Algebra**
  - Geometric patterns (Integrated with 2-D shapes)
  - Number patterns (Integrated into counting)

- **Space and Shape**
  - Position and directions (on an informal map)

- **Measurement**
  - Capacity and volume (ml, l)

- **Data Handling**
  - (Integrated with other content areas)

## Term 3 (11 Weeks)
- **Numbers, Operations and Relationships**
  - Division up to 100 (with and without remainder)
  - Sharing leading to fractions
  - Fractions
  - 3-digit numbers with place value up to 1 000
  - Addition and subtraction of 3 digit numbers by 3 digits with crossing over to 10s and 100s

- **Patterns, Functions and Algebra**
  - Number patterns

- **Space and Shape**
  - Position, orientation and views

- **Measurement**
  - Capacity and volume (ml, l)
  - (Measurement integrated into 4 basic operations through word problems)

- **Data Handling**
  - (Integrated with other content areas)

## Term 4 (10 Weeks)
- **Numbers, Operations and Relationships**
  - Consolidation of four basic operations

## Assessment
- **Term 1-3**:
  - Observation and continuous assessment (record observations daily) integrated into lesson time per DBE directive

- **Term 4**: Observation and continuous assessment (record observations daily) integrated into lesson time
  - Final formative assessment at the end of term (recording and progression meetings-2 weeks)

**Assessment Types**: Oral, Practical and Written
## Difference in Gr 1-3 (Term 1)

<table>
<thead>
<tr>
<th>CONTENT AREA</th>
<th>GRADE 1</th>
<th>GRADE 2</th>
<th>GRADE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBERS, OPERATIONS AND RELATIONSHIPS</td>
<td>• Count concrete objects up to 50</td>
<td>• Count–objects up to 100</td>
<td>• Count–objects up to 100</td>
</tr>
<tr>
<td></td>
<td>• Read and write number symbols 50</td>
<td>• Count- forwards and backwards up to 200</td>
<td>• Count- forwards and backwards up to 200</td>
</tr>
<tr>
<td></td>
<td>• Compare and order numbers to 50</td>
<td>• Recognise, identify, read and write number symbols up to 200</td>
<td>• Recognise, identify, read and write number symbols up to 200</td>
</tr>
<tr>
<td></td>
<td>• Place value up to 50</td>
<td>• Order and compare (&lt;, &gt;, =) whole numbers up to 99</td>
<td>• Order and compare (&lt;, &gt;, =) whole numbers up to 99</td>
</tr>
<tr>
<td></td>
<td>• No Grouping and sharing</td>
<td>• Division up to 50 (without remainder)</td>
<td>• Division up to 50 (without remainder)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No Sharing leading to fractions and Fractions</td>
<td>• No Sharing leading to fractions and Fractions</td>
</tr>
<tr>
<td>PATTERNS, FUNCTIONS AND ALGEBRA</td>
<td>• Number patterns up to 200</td>
<td>• 3-D objects</td>
<td>• 3-D objects</td>
</tr>
<tr>
<td>SPACE AND SHAPE</td>
<td>• 3-D objects</td>
<td>• No 2-D shapes</td>
<td>• No 2-D shapes</td>
</tr>
<tr>
<td>MEASUREMENT</td>
<td>• No Length</td>
<td>• No Capacity/Volume</td>
<td>• No Capacity/Volume</td>
</tr>
<tr>
<td>DATA HANDLING</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**ASSESSMENT: READINESS & BASELINE**

<table>
<thead>
<tr>
<th>READINESS: GRADE 1</th>
<th>BASELINE: GRADE 2&amp;3</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Readiness Assessment identifies the potential opportunities, challenges and predicts the readiness for Grade 1. It identifies learners who may benefit from additional stimulation programmes and learning support at an early stage and also informs the teachers future teaching plan to accommodate all learners.</td>
<td>• Baseline Assessment helps teachers to understand, the learners knowledge, learning gaps and to address these optimally via teaching, remediation or ultimately developing a learning support plan.</td>
</tr>
<tr>
<td>• First week of school (first 3 days)</td>
<td>• First week of school (first 3 days)</td>
</tr>
<tr>
<td>• One-on-one activity/group activity</td>
<td>• Written task</td>
</tr>
<tr>
<td>• Requires <strong>error analysis</strong></td>
<td>• Requires <strong>error analysis</strong></td>
</tr>
</tbody>
</table>
# 2021 TERM 1 RECOVERY ATPs

## FOUNDATION PHASE

<table>
<thead>
<tr>
<th>Grade</th>
<th>AMENDED 2021 ATPS TERM 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GRADE 1</strong></td>
<td><img src="#" alt="2021_FP Maths_GR1_TERM" /></td>
</tr>
<tr>
<td><strong>GRADE 2</strong></td>
<td><img src="#" alt="2021 FP Maths GR_2_TERM 1" /></td>
</tr>
<tr>
<td><strong>GRADE 3</strong></td>
<td><img src="#" alt="2021 FP Maths GR_3_TERM 1" /></td>
</tr>
</tbody>
</table>
SUMMARY: AMENDMENT TO THE WEIGHTING OF CONTENT AREAS

As the **concepts and skills** are packaged in a more integrated and unitary format:

- The **weighting** of content areas remains unchanged.

<table>
<thead>
<tr>
<th>Grade</th>
<th>CA1: Numbers, Operations and Relationships</th>
<th>CA2: Patterns, Functions and Algebra</th>
<th>CA3: Space and Shapes (Geometry)</th>
<th>CA4: Measurement</th>
<th>CA5: Data Handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>65%</td>
<td>10%</td>
<td>11%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>2</td>
<td>60%</td>
<td>10%</td>
<td>13%</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>3</td>
<td>58%</td>
<td>10%</td>
<td>13%</td>
<td>14%</td>
<td>5%</td>
</tr>
</tbody>
</table>
SOME TEACHERS PREFER TO EMBRACE A GROUP teaching as suggested below:

- Plus factor here is that the teacher manages to teach the third group daily and the other groups are able to **complete more written work independently** at the tables.
- **7 hours** are allocated for Mathematics below is a suggested plan.

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 and 3</td>
<td>Group 2 and 3</td>
<td>Group 1 and 3</td>
<td>Group 2 and 3</td>
<td>Whole class teaching</td>
</tr>
</tbody>
</table>

**WEEK: 7 HOURS**

**PER DAY** 1 hr. 24 min  ×  5 = 7 hrs.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counting</td>
<td>5 min</td>
</tr>
<tr>
<td>Consolidation of Concepts</td>
<td>10 min</td>
</tr>
<tr>
<td>New Concept</td>
<td>20 min</td>
</tr>
<tr>
<td>Group work</td>
<td>24 × 2 groups = 48 min</td>
</tr>
</tbody>
</table>
GRADE R
PROGRAMME OF ASSESSMENT

• In Grade R, School Based Assessment (SBA) remains **100 % continuous** and ongoing
• Assessment practices in Grade R should continue to be informal and the **learner should not be subjected to any ‘test’ situations**
• **Assessment for learning** practices will continue to track Grade R learner progress for **term 1**
• The Grade R assessment activities should be **purposely integrated across all subjects** in the daily/weekly lesson plans
• **The use of observations, checklists and rubrics are encouraged to record learner progress.**
The Programme of Assessment (POA) will comprise of **ONE assessment task for Mathematics per Term per Grade**

The POA is informed by the **REVISED SECTION 4**

An Assessment Task covers all Content Areas in Mathematics and comprises of **Oral, Practical and Written** activities.

Teachers teaching the same grade can team up and **collaborate via respective (PLCs) groups** e.g., WhatsApp, etc. and jointly develop assessment activities for this purpose.

Assessments are designed on teaching practices and where topics have not been taught, testing can still take place using the previous Grade level.
## SCHOOL BASED ASSESSMENT

<table>
<thead>
<tr>
<th>CONTENT AREA</th>
<th>TYPE</th>
<th>GRADE 1</th>
<th>GRADE 2</th>
<th>GRADE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER OPERATIONS &amp; RELATIONSHIPS (NOR)</strong></td>
<td>ORAL</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PRACTICAL</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>WRITTEN</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>PATTERNS, FUNCTIONS &amp; ALGEBRA (PFA)</strong></td>
<td>ORAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PRACTICAL</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>WRITTEN</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>SPACE &amp; SHAPE (SS)</strong></td>
<td>ORAL</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PRACTICAL</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>WRITTEN</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>MEASUREMENT (M)</strong></td>
<td>ORAL</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PRACTICAL</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>WRITTEN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DATA HANDLING (DH)</strong></td>
<td>ORAL</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PRACTICAL</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>WRITTEN</td>
<td></td>
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<td>1</td>
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</tbody>
</table>
CONCLUSION

• Cognisance was taken of the holistic development of the child.

• The limited teaching time necessitated the integration of concepts across the content areas.

• If taught well this will support a deeper insight of the concepts taught.

• Good number sense is a key building block for further Maths development in the primary school.

• Number sense is an intuitive process that is internalised by the learner once the learner understands the concept taught.

• Learners must be encouraged to “do/ demonstrate, talk about, and to record”, their mathematical thinking.
CONTACT DETAILS

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