<table>
<thead>
<tr>
<th>LESSON OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>REFERENCES</td>
<td>NOT FOR SALE</td>
</tr>
</tbody>
</table>

For use with Discovering Second Mathematics
# Mathematics Form Two Schemes of Work: Term One

<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| 1–2    | Cubes and cube roots of numbers | Methods of finding the cubes of numbers | By the end of the lesson, the learner should be able to find the cube root of a number by multiplication and from tables. | • Multiplying numbers  
• Reading mathematical tables  
• Discussions  
• Demonstrations  
• Exercises | • Multiplication tables  
• Mathematical tables | Discovering Secondary Mathematics  
• Student’s Book 2 pages 1–3  
• Teacher’s Book 2 pages 2–3 | |
| 3      | Cubes and cube roots of numbers | Cubes of numbers less than 1 or greater than 10 | By the end of the lesson, the learner should be able to find the cubes of numbers less than 1 and greater than 10 from mathematical tables. | • Multiplying numbers  
• Reading mathematical tables  
• Discussions  
• Demonstrations  
• Exercises | • Multiplication tables  
• Mathematical tables | Discovering Secondary Mathematics  
• Student’s Book 2 page 3  
• Teacher’s Book 2 pages 2–3 | |
| 4–5    | Cubes and cube roots of numbers | Cube roots of numbers | By the end of the lesson, the learner should be able to find the cube roots of numbers by the factor method and from mathematical tables. | • Multiplying numbers  
• Dividing numbers  
• Reading mathematical tables  
• Demonstrations  
• Discussions  
• Exercises | • Multiplication tables  
• Mathematical tables | Discovering Secondary Mathematics  
• Student’s Book 2 pages 4–5  
• Teacher’s Book 2 pages 2–3 | |
| 6      | Cubes and cube roots of numbers | Cube roots of numbers less than 1 or greater than 999.9 | By the end of the lesson, the learner should be able to find the cube roots of numbers less than 1 or greater than 999.9 from mathematical tables. | • Multiplying numbers  
• Dividing numbers  
• Reading mathematical tables  
• Demonstrations  
• Discussions  
• Exercises | • Multiplication tables  
• Mathematical tables | Discovering Secondary Mathematics  
• Student’s Book 2 pages 5–6  
• Teacher’s Book 2 pages 2–3 | |
| 1–2    | Indices | The laws of indices | By the end of the lesson, the learner should be able to define indices and use the laws of indices in calculations. | • Discussions  
• Multiplying numbers  
• Dividing numbers  
• Factorizing numbers  
• Exercises | • Multiplication tables  
• Factors of numbers | Discovering Secondary Mathematics  
• Student’s Book 2 pages 7–8  
• Teacher’s Book 2 pages 3–4 | |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3–4</td>
<td>Indices</td>
<td>Positive and negative indices</td>
<td>By the end of the lesson, the learner should be able to use the zero index, positive and negative indices in calculations.</td>
<td>• Discussions • Multiplying numbers • Dividing numbers • Factorizing numbers • Exercises</td>
<td>• Multiplication tables • Factors of numbers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 8–9 • Teacher’s Book 2 pages 3–4</td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Indices</td>
<td>Fractional indices</td>
<td>By the end of the lesson, the learner should be able to apply the laws of indices in numbers with fractional indices.</td>
<td>• Discussions • Multiplying numbers • Dividing numbers • Factorizing numbers • Exercises</td>
<td>• Multiplication tables • Factors of numbers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 9–11 • Teacher’s Book 2 pages 3–4</td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Reciprocals of numbers</td>
<td>Reciprocals of numbers (1≤A≤10)</td>
<td>By the end of the lesson, the learner should be able to find the reciprocal of a number 1≤A≤10 by division or from mathematical tables.</td>
<td>• Multiplying numbers • Dividing numbers • Reading mathematical tables • Demonstrations • Discussions • Exercises</td>
<td>• Multiplication tables • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 12–13 • Teacher’s Book 2 pages 5–6</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Reciprocals of numbers</td>
<td>Reciprocals of numbers less than 1 and greater than 9.999</td>
<td>By the end of the lesson, the learner should be able to find reciprocals of numbers less than 1 and greater than 9.999 from mathematical tables.</td>
<td>• Multiplying numbers • Dividing numbers • Reading mathematical tables • Demonstrations • Discussions • Exercises</td>
<td>• Multiplication tables • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 13–14 • Teacher’s Book 2 pages 5–6</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Common logarithms</td>
<td>Powers of 10 and logarithms</td>
<td>By the end of the lesson, the learner should be able to relate powers of 10 to common logarithms.</td>
<td>• Expressing numbers in power form • Expressing numbers with 10 as the base • Relating powers of 10 to logarithms • Factorizing numbers</td>
<td>• Multiplication tables • Indices of numbers • Factors of numbers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 page 15 • Teacher’s Book 2 pages 6–7</td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>6</td>
<td>Common logarithms</td>
<td>Logarithms of numbers (≤x&lt;10)</td>
<td>By the end of the lesson, the learner should be able to read logarithms of numbers (1≤x≤10) from mathematical tables.</td>
<td>• Reading mathematical tables&lt;br&gt; • Discussions&lt;br&gt; • Demonstrations&lt;br&gt; • Exercises</td>
<td>• Multiplication tables&lt;br&gt; • Mathematical tables</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student's Book 2 pages 15–16&lt;br&gt; • Teacher's Book 2 pages 6–7</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Common logarithms</td>
<td>Logarithms of numbers (x&gt;10)</td>
<td>By the end of the lesson, the learner should be able to find the logarithms of numbers (x&gt;10) from mathematical tables.</td>
<td>• Reading mathematical tables&lt;br&gt; • Discussions&lt;br&gt; • Demonstrations&lt;br&gt; • Exercises</td>
<td>• Multiplication tables&lt;br&gt; • Mathematical tables</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student's Book 2 page 16&lt;br&gt; • Teacher's Book 2 pages 6–7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Common logarithms</td>
<td>Logarithms of numbers (0&lt;x&lt;1)</td>
<td>By the end of the lesson, the learner should be able to find the logarithms of numbers (0&lt;x&lt;1) from mathematical tables.</td>
<td>• Reading mathematical tables&lt;br&gt; • Discussions&lt;br&gt; • Demonstrations&lt;br&gt; • Exercises</td>
<td>• Multiplication tables&lt;br&gt; • Mathematical tables</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student's Book 2 pages 16–17&lt;br&gt; • Teacher's Book 2 pages 6–7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Common logarithms</td>
<td>Antilogarithms</td>
<td>By the end of the lesson, the learner should be able to find the antilogarithms of numbers from mathematical tables.</td>
<td>• Reading mathematical tables&lt;br&gt; • Discussions&lt;br&gt; • Demonstrations&lt;br&gt; • Exercises</td>
<td>• Multiplication tables&lt;br&gt; • Mathematical tables</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student’s Book 2 pages 17–18&lt;br&gt; • Teacher’s Book 2 pages 6–7</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Common logarithms</td>
<td>Multiplication of numbers</td>
<td>By the end of the lesson, the learner should be able to use logarithms to work out the multiplication of numbers.</td>
<td>• Reading mathematical tables&lt;br&gt; • Discussions&lt;br&gt; • Demonstrations&lt;br&gt; • Exercises</td>
<td>• Mathematical tables&lt;br&gt; • Multiplication tables</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student’s Book 1 page 18&lt;br&gt; • Teacher’s Book 1 pages 6–7</td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-----------</td>
<td>------------</td>
<td>------------------------------</td>
<td>-----------------------------</td>
<td>------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| 5      | Common logarithms | Division of numbers | By the end of the lesson, the learner should be able to use logarithms to work out the division of numbers. | • Reading mathematical tables  
• Discussions  
• Demonstrations  
• Exercises | • Mathematical tables  
• Multiplication tables | Discovering Secondary Mathematics  
• Student's Book 1 page 19  
• Teacher's Book 1 pages 6–7 |         |
| 6      | Common logarithms | Combined multiplication and division of numbers | By the end of the lesson, the learner should be able to use logarithms to work out combined multiplication and division of numbers. | • Reading mathematical tables  
• Discussions  
• Demonstrations  
• Exercises | • Mathematical tables  
• Multiplication tables | Discovering Secondary Mathematics  
• Student's Book 1 pages 19–20  
• Teacher's Book 1 pages 6–7 |         |
| 1      | Common logarithms | Negative characteristics | By the end of the lesson, the learner should be able to use negative logarithms. | • Reading mathematical tables  
• Discussions  
• Demonstrations  
• Exercises | • Mathematical tables  
• Multiplication tables | Discovering Secondary Mathematics  
• Student's Book 1 page 20  
• Teacher's Book 1 pages 6–7 |         |
| 2      | Common logarithms | Multiplying and dividing logarithms | By the end of the lesson, the learner should be able to multiply and divide logarithms. | • Reading mathematical tables  
• Discussions  
• Demonstrations  
• Exercises | • Mathematical tables  
• Multiplication tables | Discovering Secondary Mathematics  
• Student's Book 1 pages 20–21  
• Teacher's Book 1 pages 6–7 |         |
| 3–4    | Common logarithms | Indices and logarithms | By the end of the lesson, the learner should be able to apply the laws of indices in logarithms. | • Adding/subtracting numbers  
• Discussions  
• Demonstrations  
• Exercises | • Factors of numbers  
• Multiplication tables | Discovering Secondary Mathematics  
• Student's Book 1 pages 21–22  
• Teacher's Book 1 pages 6–7 |         |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5–6</td>
<td>Common logarithms</td>
<td>Revision</td>
<td>By the end of the lesson, the learner should be able to answer questions involving logarithms.</td>
<td>• Asking and answering questions • Discussing questions and answers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Equations of straight lines</td>
<td>The gradient of a straight line</td>
<td>By the end of the lesson, the learner should be able to define and determine the gradient of a straight line.</td>
<td>• Drawing linear graphs • Plotting coordinates on the Cartesian plane • Reading the coordinates of points on the Cartesian plane</td>
<td>• Graph books • Square boards • Straight edges • Rulers • Real-life experiences</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 23–25 • Teacher’s Book 2 pages 8–9</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Equations of straight lines</td>
<td>The equation of a straight line</td>
<td>By the end of the lesson, the learner should be able to determine the equation of a straight line using the gradient and one known point.</td>
<td>• Drawing linear graphs • Plotting coordinates on the Cartesian plane • Reading the coordinates of points on the Cartesian plane</td>
<td>• Graph books • Square boards • Straight edges • Rulers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 25–27 • Teacher’s Book 2 pages 8–9</td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Equations of straight lines</td>
<td>The general equation of a straight line</td>
<td>By the end of the lesson, the learner should be able to express the equation of a straight line in the form ( y = mx + c ).</td>
<td>• Drawing linear graphs • Plotting coordinates on the Cartesian plane • Reading the coordinates of points on the Cartesian plane</td>
<td>• Graph books • Square boards • Straight edges • Rulers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 27–28 • Teacher’s Book 2 pages 8–9</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Equations of straight lines</td>
<td>The intercepts of a straight line</td>
<td>By the end of the lesson, the learner should be able to find the ( x )- and the ( y )-intercepts of a straight line.</td>
<td>• Drawing linear graphs • Plotting coordinates on the Cartesian plane • Reading the coordinates of points on the Cartesian plane</td>
<td>• Graph books • Square boards • Straight edges • Rulers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 28–29 • Teacher’s Book 2 pages 8–9</td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-----------</td>
<td>------------</td>
<td>-------------------------------</td>
<td>------------------------------</td>
<td>------------</td>
<td>---------</td>
</tr>
<tr>
<td>2</td>
<td>Equations of straight lines</td>
<td>The graph of a straight line</td>
<td>By the end of the lesson, the learner should be able to draw a line graph using the x- and y-intercepts.</td>
<td>• Drawing linear graphs • Plotting coordinates on the Cartesian plane • Reading the coordinates of points on the Cartesian plane</td>
<td>• Graph books • Square boards • Straight edges • Rulers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 page 29 • Teacher’s Book 2 pages 8–9</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Equations of straight lines</td>
<td>The gradients of parallel lines</td>
<td>By the end of the lesson, the learner should be able to find the gradients of parallel lines.</td>
<td>• Drawing linear graphs • Plotting coordinates on the Cartesian plane • Reading the coordinates of points on the Cartesian plane</td>
<td>• Graph books • Square boards • Straight edges • Rulers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 29–30 • Teacher’s Book 2 pages 8–9</td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Equations of straight lines</td>
<td>The gradients of perpendicular lines</td>
<td>By the end of the lesson, the learner should be able to state the relationship between the gradients of perpendicular lines.</td>
<td>• Drawing linear graphs • Plotting coordinates on the Cartesian plane • Reading the coordinates of points on the Cartesian plane</td>
<td>• Graph books • Square boards • Straight edges • Rulers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 30–31 • Teacher’s Book 2 pages 8–9</td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Reflection and congruence</td>
<td>Geometric transformations (reflection)</td>
<td>By the end of the lesson, the learner should be able to state the properties of reflection and construct and identify the image and the object in a reflection.</td>
<td>• Observing objects in plane mirrors • Identifying the object and the image in a plane mirror • Drawing • Identifying lines of symmetry • Identifying the mirror line in a plane mirror</td>
<td>• Plane mirrors • Tracing paper • Symmetrical objects • Cartesian plane • Reflective surfaces</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 32–34 • Teacher’s Book 2 pages 9–12</td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------</td>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3</td>
<td>Reflection and congruence</td>
<td>Planes of symmetry</td>
<td>By the end of the lesson, the learner should be able to identify the plane of symmetry in a reflection given the image and the object.</td>
<td>• Observing objects in plane mirrors</td>
<td>• Plane mirrors</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the object and the image in a plane mirror</td>
<td>• Tracing paper</td>
<td>• Student’s Book 2 pages 34–37</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing</td>
<td>• Symmetrical objects</td>
<td>• Teacher’s Book 2 pages 9–12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying lines of symmetry</td>
<td>• Cartesian plane</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the mirror line in a plane mirror</td>
<td>• Reflective surfaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4–5</td>
<td>Reflection and congruence</td>
<td>Reflection in the Cartesian plane</td>
<td>By the end of the lesson, the learner should be able to apply reflection in the Cartesian plane.</td>
<td>• Observing objects in plane mirrors</td>
<td>• Graph books</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the object and the image in a plane mirror</td>
<td>• Square boards</td>
<td>• Student’s Book 2 pages 37–38</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing</td>
<td>• Straight edges</td>
<td>• Teacher’s Book 2 pages 9–12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying lines of symmetry</td>
<td>• Rulers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the mirror line in a plane mirror</td>
<td>• Symmetrical objects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• The Cartesian plane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Reflection and congruence</td>
<td>Congruent triangles</td>
<td>By the end of the lesson, the learner should be able to identify congruent triangles.</td>
<td>• Observing objects in plane mirrors</td>
<td>• Graph books</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the object and the image in a plane mirror</td>
<td>• Square boards</td>
<td>• Student’s Book 2 pages 39–40</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing</td>
<td>• Straight edges</td>
<td>• Teacher’s Book 2 pages 9–12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying lines of symmetry</td>
<td>• Rulers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the mirror line in a plane mirror</td>
<td>• Symmetrical objects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• The Cartesian plane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Reflection and congruence</td>
<td>Reflection of congruent figures</td>
<td>By the end of the lesson, the learner should be able to identify objects that are congruent through reflection.</td>
<td>• Observing objects in plane mirrors</td>
<td>• Graph books</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the object and the image in a plane mirror</td>
<td>• Square boards</td>
<td>• Student’s Book 2 pages 40–43</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing</td>
<td>• Straight edges</td>
<td>• Teacher’s Book 2 pages 9–12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying lines of symmetry</td>
<td>• Rulers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Identifying the mirror line in a plane mirror</td>
<td>• Symmetrical objects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• The Cartesian plane</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOT FOR SALE**
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| 3–4    | Rotation | The properties of rotation | By the end of the lesson, the learner should be able to state the meaning and properties of a transformation. | Rotating objects  
Measuring angles/lengths  
Drawing objects  
Identifying the line of symmetry | Square boards  
Graph paper  
Tracing paper  
Geometrical instruments | Discovering Secondary Mathematics  
• Student’s Book 2 pages 44–45  
• Teacher’s Book 2 pages 12–14 |         |
| 5–6    | Rotation | Center and angle of rotation | By the end of the lesson, the learner should be able to determine the centre and angle of rotation. | Rotating objects  
Measuring angles/lengths  
Drawing objects  
Identifying the line of symmetry | Square boards  
Graph paper  
Tracing paper  
Geometrical instruments | Discovering Secondary Mathematics  
• Student’s Book 2 pages 46–47  
• Teacher’s Book 2 pages 12–14 |         |
| 1–2    | Rotation | Rotation in the Cartesian plane | By the end of the lesson, the learner should be able to apply the properties of rotation in the Cartesian plane. | Finding images  
Drawing the Cartesian plane  
Showing shapes on the Cartesian plane  
Investigating the relation between the object and the image  
Rotating objects  
Measuring angles/lengths  
Identifying the line of symmetry | Square boards  
Graph paper  
Tracing paper  
Geometrical instruments | Discovering Secondary Mathematics  
• Student’s Book 2 pages 47–49  
• Teacher’s Book 2 pages 12–14 |         |
| 3–4    | Rotation | Rotational symmetry | By the end of the lesson, the learner should be able to:  
• Identify the points of rotational symmetry.  
• State the order of rotational symmetry of plane figures.  
• Identify the axis of rotational symmetry. | Finding images  
Drawing the Cartesian plane  
Showing shapes on the Cartesian plane  
Investigating the relation between the object and the image  
Rotating objects  
Measuring angles/lengths  
Identifying the line of symmetry | Square boards  
Graph paper  
Tracing paper  
Geometrical instruments | Discovering Secondary Mathematics  
• Student’s Book 2 pages 49–51  
• Teacher’s Book 2 pages 12–14 |         |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| WEEK 10 | 5–6   | Rotation  | Revision   | By the end of the lesson, the learner should be able to answer questions involving rotation. | • Asking and answering questions  
• Discussing answers to questions | Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student's Book 2 pages 52–56  
• Teacher's Book 2 pages 14–16 |
|     | 1–2   | Similarities and enlargements | Similar triangles | By the end of the lesson, the learner should be able to identify similar figures and construct similar triangles. | • Identifying similar figures  
• Tracing figures  
• Constructing similar triangles  
• Measuring angles/lengths | Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student's Book 2 pages 56–57  
• Teacher's Book 2 pages 14–16 |
| WEEK 11 | 3–4   | Similarities and enlargements | Construction of other similar figures | By the end of the lesson, the learner should be able to construct similar figures other than triangles. | • Identifying similar figures  
• Tracing figures  
• Constructing similar triangles  
• Measuring angles/lengths | Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student's Book 2 pages 57–61  
• Teacher's Book 2 pages 14–16 |
|     | 5–6   | Similarities and Enlargements | Enlargements | By the end of the lesson, the learner should be able to state the scale factor and the centre of enlargement. | • Identifying similar figures  
• Tracing figures  
• Constructing similar figures  
• Enlarging figures  
• Drawing figures on the Cartesian plane  
• Measuring lengths/angles | Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student's Book 2 pages 61–62  
• Teacher's Book 2 pages 14–16 |
| WEEK 12 | 1–2   | Similarities and Enlargements | Enlargement on the Cartesian plane | By the end of the lesson, the learner should be able to apply enlargement on the Cartesian plane. | • Identifying similar figures  
• Tracing figures  
• Constructing similar figures  
• Enlarging figures  
• Drawing figures on the Cartesian plane  
• Measuring lengths/angles | Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student's Book 2 pages 61–62  
• Teacher's Book 2 pages 14–16 |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| 3–4    | Similarities and Enlargements | Areas of similar figures | By the end of the lesson, the learner should be able to state the relationship between linear scale and area scale factors. | • Identifying similar figures  
• Tracing figures  
• Constructing similar figures  
• Enlarging figures  
• Drawing figures on the Cartesian plane  
• Measuring lengths/angles | • Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student’s Book 2 pages 62–64  
• Teacher’s Book 2 pages 14–16 | |
| 5–6    | Similarities and Enlargements | Volume of similar figures | By the end of the lesson, the learner should be able to state the relationship between linear, area and volume scale factors. | • Identifying similar figures  
• Tracing figures  
• Constructing similar figures  
• Enlarging figures  
• Drawing figures on the Cartesian plane  
• Measuring lengths/angles | • Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student’s Book 2 pages 64–65  
• Teacher’s Book 2 pages 14–16 | |
| 1–2    | Similarities and Enlargements | Applications of scale factors | By the end of the lesson, the learner should be able to apply scale factors in real-life. | • Identifying similar figures  
• Tracing figures  
• Constructing similar figures  
• Enlarging figures  
• Drawing figures on the Cartesian plane  
• Measuring lengths/angles | • Geometrical instruments  
• Graph paper  
• Photographs  
• Maps  
• Models | Discovering Secondary Mathematics  
• Student’s Book 2 page 66  
• Teacher’s Book 2 pages 14–16 | |

REVISION AND EXAMINATIONS
# Mathematics Form Two Schemes of Work: Term Two

<table>
<thead>
<tr>
<th>WEEK 1</th>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–2</td>
<td>The Pythagoras’ theorem</td>
<td>Deriving the Pythagoras’ theorem</td>
<td>By the end of the lesson, the learner should be able to derive the Pythagoras’ theorem.</td>
<td>• Measuring lengths/angles • Squaring numbers • Getting the square roots of numbers • Drawing right-angled triangles • Drawing squares • Working out the area of a square</td>
<td>• Right angled-triangles • Squared paper • Ruler • Protractor</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 page 67 • Teacher’s Book 2 pages 16–17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>The Pythagoras’ theorem</td>
<td>Applying the Pythagoras’ theorem</td>
<td>By the end of the lesson, the learner should be able to solve problems using the Pythagoras’ theorem.</td>
<td>• Measuring lengths/angles • Squaring numbers • Getting the square roots of numbers • Drawing right-angled triangles • Drawing squares • Working out the area of a square</td>
<td>• Right angled-triangles • Squared paper • Ruler • Protractor</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 68–69 • Teacher’s Book 2 pages 16–17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>The Pythagoras’ theorem</td>
<td>Applying the Pythagoras’ theorem</td>
<td>By the end of the lesson, the learner should be able to solve problems using the Pythagoras’ theorem.</td>
<td>• Measuring lengths/angles • Squaring numbers • Getting the square roots of numbers • Drawing right-angled triangles • Drawing squares • Working out the area of a square</td>
<td>• Right angled-triangles • Squared paper • Ruler • Protractor</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 68–69 • Teacher’s Book 2 pages 16–17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WEEK 2</th>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The trigonometric ratios</td>
<td>The tangent of an angle</td>
<td>By the end of the lesson, the learner should be able to determine the tangent of an angle.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles</td>
<td>• Protractor • Ruler • Right corners</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 70–71 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-----------</td>
<td>------------</td>
<td>------------------------------</td>
<td>----------------------------</td>
<td>------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The trigonometric ratios</td>
<td>The table of tangents</td>
<td>By the end of the lesson, the learner should be able to read the tangent of an angle from the tangent tables.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 71–72 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The trigonometric ratios</td>
<td>Using tangents in calculations</td>
<td>By the end of the lesson, the learner should be able to use tangents of angles in calculations.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 72–74 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The trigonometric ratios</td>
<td>Applications of tangents</td>
<td>By the end of the lesson, the learner should be able to apply tangents in real-life situations.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 74–75 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>The trigonometric ratios</td>
<td>Sines</td>
<td>By the end of the lesson, the learner should be able to determine the sine of an angle, read the sine of an angle from mathematical tables and apply sines of angles in real-life situations.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 76–77 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>The trigonometric ratios</td>
<td>Cosines</td>
<td>By the end of the lesson, the learner should be able to determine the cosine of an angle, read the cosine of angle from mathematical tables and apply cosines of angles in real-life situations.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 78–79 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td></td>
</tr>
<tr>
<td>WEEK 3</td>
<td>3–4</td>
<td>The trigonometric ratios</td>
<td>Complementary angles</td>
<td>By the end of the lesson, the learner should be able to establish and use the relationship of cosines and sines of complementary angles.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 79–81 • Teacher’s Book 2 pages 17–19</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>The trigonometric ratios</td>
<td>Trigonometric ratios of some angles</td>
<td>By the end of the lesson, the learner should be able to determine the trigonometric ratios of some special angles.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 81–83 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>The trigonometric ratios</td>
<td>The logarithms of sines, cosines and tangents</td>
<td>By the end of the lesson, the learner should be able to read and use the tables of logarithms of sines, cosines and tangents.</td>
<td>• Measuring lengths/angles • Dividing numbers • Drawing right angles • Reading mathematical tables</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 83–84 • Teacher’s Book 2 pages 17–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEEK 4</td>
<td>3–4</td>
<td>Area of a triangle</td>
<td>The formula $A = \frac{1}{2}ab\sin C$</td>
<td>By the end of the lesson, the learner should be able to derive the formula $A = \frac{1}{2}ab\sin C$.</td>
<td>• Discussions • Drawing triangles • Measuring lengths/angles • Calculating area</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 85–86 • Teacher’s Book 2 pages 19–20</td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Area of a triangle</td>
<td>The formula: $A = \frac{\sqrt{s(s-c)(s-b)(s-c)}}{2}$</td>
<td>By the end of the lesson, the learner should be able to use the formula $A = \frac{\sqrt{s(s-c)(s-b)(s-c)}}{2}$ to get the area of a triangle.</td>
<td>• Discussions • Drawing triangles • Measuring lengths/angles • Calculating area</td>
<td>• Protractor • Ruler • Right corners • Mathematical tables</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 86–87 • Teacher’s Book 2 pages 19–20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-----------</td>
<td>------------</td>
<td>------------------------------</td>
<td>-----------------------------</td>
<td>------------</td>
<td>---------</td>
<td></td>
</tr>
</tbody>
</table>
| 1–2    | Area of polygons | Area of a parallelogram | By the end of the lesson, the learner should be able to find the area of a parallelogram using the formula, $A=bh$ and trigonometric ratios. | • Drawing parallelograms  
• Measuring lengths/angles  
• Reading mathematical tables  
• Discussions | • Parallelograms  
• Squares/rectangles  
• Mathematical tables | Discovering Secondary Mathematics  
• Student's Book 2 pages 88–90  
• Teacher's Book 2 pages 20–21 |         |
| 3–4    | Area of polygons | Area of a trapezium and other polygons | By the end of the lesson, the learner should be able to find the area of a trapezium and other polygons. | • Drawing trapeziums/ 
polynomials  
• Measuring lengths/ 
angles  
• Reading mathematical tables  
• Discussions | • Trapeziums  
• Polygons  
• Squares/rectangles  
• Mathematical tables | Discovering Secondary Mathematics  
• Student’s Book 2 pages 90–92  
• Teacher’s Book 2 pages 20–21 |         |
| 5–6    | Area of part of a circle | Area of a sector | By the end of the lesson, the learner should be able to find the area of a sector of a circle. | • Drawing circles  
• Measuring radii/diameters  
• Measuring angles  
• Calculating the area of a circle  
• Discussions | • Circles | Discovering Secondary Mathematics  
• Student’s Book 2 pages 93–94  
• Teacher’s Book 2 pages 21–22 |         |
| 1–2    | Area of part of a circle | Area of a segment | By the end of the lesson, the learner should be able to find the area of a segment of a circle. | • Drawing circles  
• Measuring radii/diameters  
• Measuring angles  
• Calculating the area of a circle  
• Discussions | • Circles | Discovering Secondary Mathematics  
• Student’s Book 2 pages 95–96  
• Teacher’s Book 2 pages 21–22 |         |
| 3–4    | Area of part of a circle | Area of intersecting segments | By the end of the lesson, the learner should be able to find the area of intersecting segments of circles. | • Drawing circles  
• Measuring radii/diameters  
• Measuring angles  
• Calculating the area of a circle  
• Discussions | • Circles | Discovering Secondary Mathematics  
• Student’s Book 2 pages 97–98  
• Teacher’s Book 2 pages 21–22 |         |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| 5–6    | Surface area of solids | Surface area of prisms | By the end of the lesson, the learner should be able to find the surface area of a prism. | • Drawing prisms  
• Measuring lengths  
• Opening prisms to form nets  
• Discussions  
• Calculating area | • Prisms | Discovering Secondary Mathematics  
• Student’s Book 2 pages 99–100  
• Teacher’s Book 2 pages 23–24 |         |
| 1–2    | Surface area of solids | Surface area of pyramids | By the end of the lesson, the learner should be able to find the surface area of a pyramid. | • Drawing pyramids  
• Measuring lengths/angles  
• Opening pyramids to form nets  
• Discussions  
• Calculating area | • Pyramids | Discovering Secondary Mathematics  
• Student’s Book 2 pages 100–101  
• Teacher’s Book 2 pages 23–24 |         |
| 3–4    | Surface area of solids | Surface area of cones and frustums | By the end of the lesson, the learner should be able to find the surface area of a cone and a frustum. | • Drawing cones/frustums  
• Making cones/frustums  
• Measuring lengths/angles  
• Discussions | • Cones  
• Frustums | Discovering Secondary Mathematics  
• Student’s Book 2 pages 102–104  
• Teacher’s Book 2 pages 23–24 |         |
| 5–6    | Surface area of solids | Surface area of spheres | By the end of the lesson, the learner should be able to find the surface area of a sphere. | • Sketching spheres  
• Making spheres  
• Measuring diameters/radii of spheres  
• Discussions | • Spheres | Discovering Secondary Mathematics  
• Student’s Book 2 pages 104–106  
• Teacher’s Book 2 pages 23–24 |         |
| 1–2    | Volume of solids | Volume of prisms | By the end of the lesson, the learner should be able to find the volume of a solid. | • Identifying prisms  
• Identifying the cross-sectional area  
• Drawing/sketching prisms | • Prisms | Discovering Secondary Mathematics  
• Student’s Book 2 pages 107–110  
• Teacher’s Book 2 pages 24–26 |         |
# Mathematics Form 2

## Schemes of Work

### Term 2

<table>
<thead>
<tr>
<th>WEEK 8</th>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3–4</td>
<td>Volume of solids</td>
<td>Volume of cylinders</td>
<td>By the end of the lesson, the learner should be able to find the volume of a cylinder.</td>
<td>• Drawing cylinders • Opening cylinders to form nets • Discussions</td>
<td>• Cylinders</td>
<td>Discovering Secondary Mathematics • Student's Book 2 pages 110–111 • Teacher's Book 2 pages 24–26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Volume of solids</td>
<td>Volume of pyramids</td>
<td>By the end of the lesson, the learner should be able to find the volume of a pyramid.</td>
<td>• Drawing pyramids • Making pyramids • Opening pyramids to form nets • Discussions</td>
<td>• Pyramids</td>
<td>Discovering Secondary Mathematics • Student's Book 2 pages 111–112 • Teacher's Book 2 pages 24–26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Volume of solids and frustums</td>
<td>Volume of cones and frustums</td>
<td>By the end of the lesson, the learner should be able to find the volume of a cone and a frustum.</td>
<td>• Making cones/frustums • Opening cones/frustums to form nets</td>
<td>• Cones • Frustums</td>
<td>Discovering Secondary Mathematics • Student's Book 2 pages 112–114 • Teacher's Book 2 pages 24–26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Volume of Solids</td>
<td>Volume of spheres</td>
<td>By the end of the lesson, the learner should be able to find the volume of a sphere.</td>
<td>• Identifying spheres • Sketching spheres • Measuring radii/diameters • Discussions</td>
<td>• Spheres</td>
<td>Discovering Secondary Mathematics • Student's Book 2 pages 114–116 • Teacher's Book 2 pages 24–26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Quadratic expressions and equations</td>
<td>Expanding algebraic expressions</td>
<td>By the end of the lesson, the learner should be able to expand algebraic expressions.</td>
<td>• Discussions • Multiplying numbers • Dividing numbers • Adding numbers • Subtracting numbers • Exercises</td>
<td>• Real-life experiences • Worked out expressions</td>
<td>Discovering Secondary Mathematics • Student's Book 2 page 117 • Teacher's Book 2 pages 27–29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**NOT FOR SALE**
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–2</td>
<td>Quadratic expressions and equations</td>
<td>Quadratic expressions</td>
<td>By the end of the lesson, the learner should be able to form quadratic expressions.</td>
<td>• Discussions</td>
<td>• Real-life experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Multiplying numbers</td>
<td>• Worked out expressions</td>
<td>Discovering Secondary Mathematics</td>
<td>Student’s Book 2 pages 117–118</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Dividing numbers</td>
<td></td>
<td>Teacher’s Book 2 pages 27–29</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adding numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Subtracting numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Exercises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Real-life experiences</td>
<td></td>
<td>Discovering Secondary Mathematics</td>
<td>Student’s Book 2 pages 118–119</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Worked out expressions</td>
<td></td>
<td>Teacher’s Book 2 pages 27–29</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Quadratic expressions and equations</td>
<td>The quadratic identities</td>
<td>By the end of the lesson, the learner should be able to derive the three quadratic identities.</td>
<td>• Discussions</td>
<td>• Real-life experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Multiplying numbers</td>
<td>• Worked out expressions</td>
<td>Discovering Secondary Mathematics</td>
<td>Student’s Book 2 pages 118–119</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Dividing numbers</td>
<td></td>
<td>Teacher’s Book 2 pages 27–29</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adding numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Subtracting numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Exercises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Quadratic expressions and equations</td>
<td>Factorizing quadratic expressions</td>
<td>By the end of the lesson, the learner should be able to factorize quadratic expressions.</td>
<td>• Discussions</td>
<td>• Real-life experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Multiplying numbers</td>
<td>• Worked out expressions</td>
<td>Discovering Secondary Mathematics</td>
<td>Student’s Book 2 pages 120–121</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Dividing numbers</td>
<td></td>
<td>Teacher’s Book 2 pages 27–29</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adding numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Subtracting numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Exercises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Quadratic expressions and equations</td>
<td>The difference of two squares</td>
<td>By the end of the lesson, the learner should be able to solve quadratic equations using the difference of two squares.</td>
<td>• Discussions</td>
<td>• Real-life experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Multiplying numbers</td>
<td>• Worked out expressions</td>
<td>Discovering Secondary Mathematics</td>
<td>Student’s Book 2 pages 121–122</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Dividing numbers</td>
<td></td>
<td>Teacher’s Book 2 pages 27–29</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adding numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Subtracting numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Exercises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Quadratic expressions and equations</td>
<td>Solving quadratic equations</td>
<td>By the end of the lesson, the learner should be able to solve quadratic equations.</td>
<td>• Discussions</td>
<td>• Real-life experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Multiplying numbers</td>
<td>• Worked out expressions</td>
<td>Discovering Secondary Mathematics</td>
<td>Student’s Book 2 pages 122–123</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Dividing numbers</td>
<td></td>
<td>Teacher’s Book 2 pages 27–29</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adding numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Subtracting numbers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Exercises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| 5–6    | Quadratic expressions and equations | Forming quadratic equations | By the end of the lesson, the learner should be able to form quadratic equations. | • Discussions  
• Multiplying numbers  
• Dividing numbers  
• Adding numbers  
• Subtracting numbers  
• Exercises | • Real-life experiences  
• Worked out expressions | Discovering Secondary Mathematics  
• Student’s Book 2 pages 123–124  
• Teacher’s Book 2 pages 27–29 |         |
| 1–2    | Linear inequalities | Inequalities on a number line | By the end of the lesson, the learner should be able to illustrate inequalities on a number line. | • Comparing numbers using the symbols for greater than and less than  
• Drawing number lines  
• Counting whole numbers  
• Marking scale on lines | • Number lines  
• Graph papers  
• Square boards  
• Negative and positive numbers | Discovering Secondary Mathematics  
• Student’s Book 2 page 125  
• Teacher’s Book 2 pages 29–30 |         |
| 3–4    | Linear inequalities | Solving linear inequalities | By the end of the lesson, the learner should be able to solve linear inequalities. | • Comparing numbers using the symbols for greater than and less than  
• Drawing number lines  
• Counting whole numbers  
• Marking scale on lines | • Number lines  
• Graph papers  
• Square boards  
• Negative and positive numbers | Discovering Secondary Mathematics  
• Student’s Book 2 pages 126–127  
• Teacher’s Book 2 pages 29–30 |         |
| 5–6    | Linear inequalities | Compound inequalities | By the end of the lesson, the learner should be able to solve compound inequalities. | • Comparing numbers using the symbols for greater than and less than  
• Drawing number lines  
• Counting whole numbers  
• Marking scale on lines | • Number lines  
• Graph papers  
• Square boards  
• Negative and positive numbers | Discovering Secondary Mathematics  
• Student’s Book 2 pages 127–128  
• Teacher’s Book 2 pages 29–30 |         |
<table>
<thead>
<tr>
<th>WEEK 13</th>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Linear inequalities</td>
<td>Graphical representation of linear inequalities</td>
<td>By the end of the lesson, the learner should be able to represent linear inequalities graphically.</td>
<td>• Drawing graphs of inequalities • Determining the scale of a graph • Shading unwanted regions • Discussions</td>
<td>• Number lines • Graph papers • Square boards • Negative and positive numbers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 128–129 • Teacher’s Book 2 pages 29–30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2–3</td>
<td>Linear inequalities</td>
<td>Inequalities with two variables</td>
<td>By the end of the lesson, the learner should be able to solve inequalities with two unknowns graphically.</td>
<td>• Drawing graphs of inequalities • Determining the scale of a graph • Shading unwanted regions • Discussions</td>
<td>• Number lines • Graph papers • Square boards • Negative and positive numbers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 129–130 • Teacher’s Book 2 pages 29–30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4–5</td>
<td>Linear inequalities</td>
<td>Graphical solutions of simultaneous inequalities</td>
<td>By the end of the lesson, the learner should be able to solve simultaneous inequalities graphically.</td>
<td>• Drawing graphs of inequalities • Determining the scale of a graph • Shading unwanted regions • Discussions</td>
<td>• Number lines • Graph papers • Square boards • Negative and positive numbers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 130–131 • Teacher’s Book 2 pages 29–30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Linear inequalities</td>
<td>Interpretation of the regions in an inequality graph</td>
<td>By the end of the lesson, the learner should be able to interpret regions in inequality graphs.</td>
<td>• Drawing graphs of inequalities • Determining the scale of a graph • Shading unwanted regions • Discussions</td>
<td>• Number lines • Graph papers • Square boards • Negative and positive numbers</td>
<td>Discovering Secondary Mathematics • Student’s Book 2 pages 131–135 • Teacher’s Book 2 pages 29–30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Mathematics Form Two Schemes of Work: Term Three

<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| 1–2    | Angle properties of a circle | Parts of a circle | By the end of the lesson, the learner should be able to identify the parts of a circle and solve problems involving them. | • Discussions  
• Drawing circles  
• Measuring radii/diameters/angles  
• Identifying the parts of a circle | • Circles showing the different parts | Discovering Secondary Mathematics  
• Student’s Book 2 pages 136–138  
• Teacher’s Book 2 pages 30–32 |        |
| 3–4    | Angle properties of a circle | Parts of a circle | By the end of the lesson, the learner should be able to identify the parts of a circle and solve problems involving them. | • Discussions  
• Drawing circles  
• Measuring radii/diameters/angles  
• Identifying the parts of a circle | • Circles showing the different parts | Discovering Secondary Mathematics  
• Student’s Book 2 pages 138–140  
• Teacher’s Book 2 pages 30–32 |        |
| 5–6    | Angle properties of a circle | Cyclic quadrilateral | By the end of the lesson, the learner should be able to state the angle properties of a cyclic quadrilateral. | • Discussions  
• Drawing circles  
• Measuring radii/diameters/angles  
• Identifying the parts of a circle | • Circles showing the different parts | Discovering Secondary Mathematics  
• Student’s Book 2 pages 140–144  
• Teacher’s Book 2 pages 30–32 |        |
| 1–2    | Vectors | Scalar quantities and translations | By the end of the lesson, the learner should be able to define a vector, scalar quantities and a translation. | • Show the direction of a vector  
• Writing the matrix of a vector  
• Drawing lines  
• Plotting the coordinates of points on the cartesian plane | • 1x2 matrices  
• Graph paper  
• Square boards  
• Ruler | Discovering Secondary Mathematics  
• Student’s Book 2 pages 145–146  
• Teacher’s Book 2 pages 33–34 |        |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOpic</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3–4</td>
<td>Vectors</td>
<td>Equivalent and column vectors</td>
<td>By the end of the lesson, the learner should be able to identify equivalent vectors and write column vectors.</td>
<td>• Show the direction of a vector&lt;br&gt;• Writing the matrix of a vector&lt;br&gt;• Drawing lines&lt;br&gt; • Plotting the coordinates of points on the Cartesian plane</td>
<td>• 1x2 matrices&lt;br&gt; • Graph papers&lt;br&gt; • Square boards&lt;br&gt; • Ruler</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student’s Book 2 pages 146–148&lt;br&gt; • Teacher’s Book 2 pages 33–34</td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Vectors</td>
<td>Addition of vectors</td>
<td>By the end of the lesson, the learner should be able to add position vectors.</td>
<td>• Show the direction of a vector&lt;br&gt;• Writing the matrix of a vector&lt;br&gt;• Drawing lines&lt;br&gt; • Plotting the coordinates of points on the Cartesian plane&lt;br&gt; • Adding numbers</td>
<td>• 1x2 matrices&lt;br&gt; • Graph papers&lt;br&gt; • Square boards&lt;br&gt; • Ruler</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student’s Book 2 pages 148–149&lt;br&gt; • Teacher’s Book 2 pages 33–34</td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Vectors</td>
<td>Subtracting vectors and the zero vector</td>
<td>By the end of the lesson, the learner should be able to subtract vectors and identify the null (zero) vector.</td>
<td>• Show the direction of a vector&lt;br&gt;• Writing the matrix of a vector&lt;br&gt;• Drawing lines&lt;br&gt; • Plotting the coordinates of points on the Cartesian plane&lt;br&gt; • Subtracting numbers</td>
<td>• 1x2 matrices&lt;br&gt; • Graph papers&lt;br&gt; • Square boards&lt;br&gt; • Ruler</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student’s Book 2 pages 150–152&lt;br&gt; • Teacher’s Book 2 pages 33–34</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Vectors</td>
<td>Multiplication of vectors by a scalar</td>
<td>By the end of the lesson, the learner should be able to multiply vectors by a scalar.</td>
<td>• Writing position vectors&lt;br&gt;• Adding and subtracting vectors&lt;br&gt;• Multiplying vectors by a scalar</td>
<td>• 1x2 matrices&lt;br&gt; • Graph papers&lt;br&gt; • Square boards&lt;br&gt; • Ruler</td>
<td>Discovering Secondary Mathematics&lt;br&gt; • Student’s Book 2 pages 152–154&lt;br&gt; • Teacher’s Book 2 pages 33–34</td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>---------------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5–6</td>
<td>Vectors</td>
<td>The magnitude of a vector</td>
<td>By the end of the lesson, the learner should be able to determine the magnitude of a vector.</td>
<td>• Writing position vectors</td>
<td>• 1x2 matrices</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adding/subtracting numbers</td>
<td>• Graph papers</td>
<td>• Student’s Book 2 pages 154–155</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Squaring and getting the square root of numbers</td>
<td>• Square boards</td>
<td>• Teacher’s Book 2 pages 33–34</td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Vectors</td>
<td>The mid-point of a vector</td>
<td>By the end of the lesson, the learner should be able to establish the equality of vectors and determine the mid-point of a vector.</td>
<td>• Writing position vectors</td>
<td>• 1x2 matrices</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adding/subtracting numbers</td>
<td>• Graph papers</td>
<td>• Student’s Book 2 pages 156–157</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Squaring and getting the square root of numbers</td>
<td>• Square boards</td>
<td>• Teacher’s Book 2 pages 33–34</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>Representa-</td>
<td>Collection and representation of data</td>
<td>By the end of the lesson, the learner should be able to collect, organize and represent data for easy interpretation.</td>
<td>• Collecting data</td>
<td>• Weighing balance</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tion of data</td>
<td></td>
<td></td>
<td>• Measuring length/mass/age</td>
<td>• Ruler</td>
<td>• Student’s Book 2 pages 158–159</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing graphs</td>
<td>• Tape measure</td>
<td>• Teacher’s Book 2 pages 34–37</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing tables</td>
<td>• Pieces of stick</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Using symbols to represent data</td>
<td>• Arm length</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Discussion</td>
<td>• Foot length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>Representa-</td>
<td>Pictograms</td>
<td>By the end of the lesson, the learner should be able to represent data in pictograms.</td>
<td>• Collecting data</td>
<td>• Weighing balance</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tion of data</td>
<td></td>
<td></td>
<td>• Measuring length/mass/age</td>
<td>• Ruler</td>
<td>• Student’s Book 2 pages 160–161</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing graphs</td>
<td>• Tape measure</td>
<td>• Teacher’s Book 2 pages 34–37</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Drawing tables</td>
<td>• Pieces of stick</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Using symbols to represent data</td>
<td>• Arm length</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Discussion</td>
<td>• Foot length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESSON</td>
<td>TOPIC</td>
<td>SUB-TOPIC</td>
<td>OBJECTIVES</td>
<td>LEARNING/TEACHING ACTIVITIES</td>
<td>LEARNING/TEACHING RESOURCES</td>
<td>REFERENCES</td>
<td>REMARKS</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-----------</td>
<td>------------</td>
<td>------------------------------</td>
<td>-----------------------------</td>
<td>------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| 1–2    | Representation of data | Bar graphs | By the end of the lesson, the learner should be able to represent data in bar graphs. | • Collecting data  
• Measuring length/mass/age  
• Drawing graphs  
• Drawing tables  
• Using symbols to represent data  
• Discussion | • Weighing balance  
• Ruler  
• Tape measure  
• Pieces of stick  
• Arm length  
• Foot length  
• Graph papers | Discovering Secondary Mathematics  
• Student’s Book 2 pages 161–164  
• Teacher’s Book 2 pages 34–37 |         |
| 3–4    | Representation of data | Line graphs | By the end of the lesson, the learner should be able to represent data in line graphs. | • Collecting data  
• Measuring length/mass/age  
• Drawing graphs  
• Drawing tables  
• Using symbols to represent data  
• Discussion | • Weighing balance  
• Ruler  
• Tape measure  
• Pieces of stick  
• Arm length  
• Foot length  
• Graph papers | Discovering Secondary Mathematics  
• Student’s Book 2 pages 164–165  
• Teacher’s Book 2 pages 34–37 |         |
| 5–6    | Representation of data | Pie charts | By the end of the lesson, the learner should be able to represent data in pie charts. | • Collecting data  
• Measuring length/mass/age  
• Drawing graphs  
• Drawing tables  
• Using symbols to represent data  
• Discussion | • Weighing balance  
• Ruler  
• Tape measure  
• Pieces of stick  
• Arm length  
• Foot length  
• Graph papers | Discovering Secondary Mathematics  
• Student’s Book 2 pages 166–167  
• Teacher’s Book 2 pages 34–37 |         |
| 1–2    | Representation of data | Grouped and ungrouped data | By the end of the lesson, the learner should be able to group data into classes for easy representation and interpretation. | • Collecting data  
• Grouping data into classes  
• Determining class intervals | • Weighing balance  
• Ruler  
• Tape measure  
• Pieces of stick  
• Arm length  
• Foot length  
• Graph papers | Discovering Secondary Mathematics  
• Student’s Book 2 pages 167–170  
• Teacher’s Book 2 pages 34–37 |         |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3–4</td>
<td>Representa-</td>
<td>Grouped and</td>
<td>By the end of the lesson, the learner should be able</td>
<td>Collecting data</td>
<td>Weighing balance</td>
<td>Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>tion of data</td>
<td>ungrouped data</td>
<td>to group data into classes for easy representation and interpretation.</td>
<td>Grouping data into classes</td>
<td>Ruler</td>
<td>• Student's Book 2 pages 167–170</td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>Measures</td>
<td>Frequency</td>
<td>By the end of the lesson, the learner should be able</td>
<td>Collecting data</td>
<td>Weighing balance</td>
<td>• Teacher's Book 2 pages 34–37</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>central</td>
<td>polygons</td>
<td>to represent data in frequency polygons.</td>
<td>Grouping data into classes</td>
<td>Ruler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>tendency</td>
<td>The mean</td>
<td>By the end of the lesson, the learner should be able</td>
<td>Measuring length, age, mass</td>
<td>Weighing balance</td>
<td>Discovering Secondary Mathematics</td>
<td>• Student's Book 2 pages 170–172</td>
</tr>
<tr>
<td>1–2</td>
<td>Measures</td>
<td>The mode</td>
<td>to calculate the mean of a given set of data.</td>
<td>Adding numbers</td>
<td>Ruler</td>
<td>• Teacher's Book 2 pages 34–37</td>
<td></td>
</tr>
<tr>
<td>3–4</td>
<td>central</td>
<td>The mode</td>
<td>By the end of the lesson, the learner should be able to</td>
<td>Measuring length, age, mass</td>
<td>Weighing balance</td>
<td>• Discovering Secondary Mathematics</td>
<td></td>
</tr>
<tr>
<td>5–6</td>
<td>tendency</td>
<td>The median</td>
<td>calculate the mode of a given set of data.</td>
<td>Adding numbers</td>
<td>Tape measure</td>
<td>• Student's Book 2 pages 173–174</td>
<td></td>
</tr>
</tbody>
</table>

**WEEK 6**
- **3–4**: Representation of data
- **5–6**: Representation of data

**WEEK 7**
- **1–2**: Measures of central tendency
- **3–4**: Measures of central tendency
- **5–6**: Measures of central tendency

For use with *Discovering Secondary Mathematics*
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| 1–2    | Measures of central tendency | The use of $\Sigma f$ and $\Sigma fx$ | By the end of the lesson, the learner should be able to use $\Sigma f$ and $\Sigma fx$ to calculate the mean and the median of a given set of data. | • Measuring length, age, mass  
• Adding numbers  
• Dividing numbers  
• Demonstrations  
• Exercises | • Ruler  
• Weighing balance  
• Tape measure  
• Counters  
• Mathematical tables  
• Multiplication tables | Discovering Secondary Mathematics  
• Student's Book 2 pages 176–177  
• Teacher's Book 2 pages 38–40 | |
| 3–4    | Measures of central tendency | Grouped data | By the end of the lesson, the learner should be able to determine the mid-point, the mode, the mean and the median of grouped data. | • Measuring length, age, mass  
• Adding numbers  
• Dividing numbers  
• Demonstrations  
• Exercises | • Ruler  
• Weighing balance  
• Tape measure  
• Counters  
• Mathematical tables  
• Multiplication tables | Discovering Secondary Mathematics  
• Student's Book 2 pages 177–179  
• Teacher's Book 2 pages 38–40 | |
| 5–6    | Measures of central tendency | Revision | By the end of the lesson, the learner should be able to answer questions on the measures of central tendency. | • Asking and answering questions  
• Exercises | | |
| 1–2    | Linear motion | Velocity and speed | By the end of the lesson, the learner should be able to define and distinguish between displacement and distance, and velocity and speed. | • Tossing objects up  
• Drawing graphs  
• Rolling objects  
• Observing moving vehicles | • Graph papers  
• Stones  
• Pieces of paper  
• Moving vehicles/ bicycles | Discovering Secondary Mathematics  
• Student's Book 2 pages 180–183  
• Teacher's Book 2 pages 40–41 | |
| 3–4    | Linear motion | Distance-time graphs | By the end of the lesson, the learner should be able to plot and draw distance-time graphs. | • Plotting graphs  
• Drawing graphs | • Graph papers  
• Stones  
• Pieces of paper  
• Moving vehicles/ bicycles | Discovering Secondary Mathematics  
• Student's Book 2 pages 183–185  
• Teacher's Book 2 pages 40–41 | |
<table>
<thead>
<tr>
<th>LESSON</th>
<th>TOPIC</th>
<th>SUB-TOPIC</th>
<th>OBJECTIVES</th>
<th>LEARNING/TEACHING ACTIVITIES</th>
<th>LEARNING/TEACHING RESOURCES</th>
<th>REFERENCES</th>
<th>REMARKS</th>
</tr>
</thead>
</table>
| 5–6    | Linear     | Speed-time graphs| By the end of the lesson, the learner should be able to plot and draw speed-time graphs. | • Plotting graphs  
• Drawing graphs | • Graph papers  
• Stones  
• Pieces of paper  
• Moving vehicles/bicycles | Discovering Secondary Mathematics  
• Student’s Book 2 pages 185–186  
• Teacher’s Book 2 pages 40–41 |  |
| 1–2    | Linear     | Velocity and acceleration | By the end of the lesson, the learner should be able to define and distinguish between velocity and acceleration. | • Plotting graphs  
• Drawing graphs | • Graph papers  
• Stones  
• Pieces of paper  
• Moving vehicles/bicycles | Discovering Secondary Mathematics  
• Student’s Book 2 pages 186–187  
• Teacher’s Book 2 pages 40–41 |  |
| 3–4    | Linear     | Velocity-time graphs | By the end of the lesson, the learner should be able to plot and draw velocity-time graphs. | • Plotting graphs  
• Drawing graphs | • Graph papers  
• Stones  
• Pieces of paper  
• Moving vehicles/bicycles | Discovering Secondary Mathematics  
• Student’s Book 2 pages 187–190  
• Teacher’s Book 2 pages 40–41 |  |
| 5–6    | Linear     | Relative speed   | By the end of the lesson, the learner should be able to solve problems involving relative speed. | • Plotting graphs  
• Drawing graphs | • Graph papers  
• Stones  
• Pieces of paper  
• Moving vehicles/bicycles | Discovering Secondary Mathematics  
• Student’s Book 2 pages 190–194  
• Teacher’s Book 2 pages 40–41 |  |

REVISION AND EXAMINATIONS