### Scope and Sequence Chart 2014

**Subject Area:** AC Mathematics  
**Year Level:** 7

<table>
<thead>
<tr>
<th>TERM 1</th>
<th>TERM 2</th>
<th>TERM 3</th>
<th>TERM 4</th>
</tr>
</thead>
</table>
| **Number and Algebra**  
**Number and Place Value**  
- Basic operations  
- Multiples, factors and primes  
- Estimating, rounding and ordering  
- Indices and Laws, index notation  
- Square and square roots  
- Positive and negative numbers  
  4 week unit  
**Number and Algebra**  
**Real Numbers (Decimals, Percentage and Ratio)**  
- Decimal ordering and rounding  
- Fraction, decimal and percentage conversions  
- Percentages of quantities  
- Simple ratios  
  3 week unit  
**Number and Algebra**  
**Money and Financial Mathematics**  
- Investigate and calculate ‘best buys’, with and without digital technologies  
  2 week unit  
**Measurement and Geometry**  
**Using units of Measurement**  
- Metric units, conversions and applications  
- Area formulas of rectangles, triangles and parallelograms  
- Volume of rectangular prisms  
  3 week unit  |
| **Number and Algebra**  
**Real Numbers (Decimals, Percentage and Ratio)**  
- Decimal ordering and rounding  
- Fraction, decimal and percentage conversions  
- Percentages of quantities  
- Simple ratios  
  3 week unit  
**Number and Algebra**  
**Linear and Non-linear relationships**  
- Plot points on a Cartesian plane  
- Solve simple Linear equations  
- Investigate, interpret and analyse graphs from authentic data  
  3 week unit |
| **Number and Algebra**  
**Patterns and Algebra**  
- Introduce the concept of variables  
- Create algebraic expressions and substitution  
- Apply the laws and properties of arithmetic to algebraic terms and expressions  
  3 week unit  
**Measurement and Geometry**  
**Geometric reasoning**  
- Corresponding, alternate and co-interior angles  
- Parallel lines  
- Classification and properties of triangles and quadrilaterals  
- Angle sum in triangles and quadrilaterals  
  3 week unit  |
| **Statistics and Probability**  
**Data Representation and Interpretation**  
- Data collection from primary and secondary sources  
- Stem-and-leaf and dot plots  
- Calculate mean, median and mode of data  
- Interpreting data using mean, median and range.  
  3 week unit |
| **Statistics and Probability**  
**Chance**  
- Two chance outcome where the number of outcomes is equally likely  
- Assign probabilities of events and determine probabilities of events  
  2 week unit |
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<thead>
<tr>
<th>Chapter 1</th>
<th>Chapter 2</th>
<th>Chapter 3</th>
<th>Chapter 4</th>
<th>Chapter 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole numbers</td>
<td>Integers (*headstart 2012)</td>
<td>Fractions</td>
<td>Decimals, percentages and ratios</td>
<td>Algebra</td>
</tr>
<tr>
<td>- Mental strategies</td>
<td>- Multiples, factors and divisibility</td>
<td>- Understanding fractions</td>
<td>- Place value and comparing decimals</td>
<td>- Pronumerals and variables</td>
</tr>
<tr>
<td>- Indices</td>
<td>- Primes and composites</td>
<td>- Working with fractions</td>
<td>- Rounding decimals</td>
<td>- Terms expressions and equations</td>
</tr>
<tr>
<td>- More strategies for multiplication and division</td>
<td>- Prime factors</td>
<td>- Estimating and comparing fractions</td>
<td>- Decimals and fractions</td>
<td>- Using rules</td>
</tr>
<tr>
<td>- Estimating and rounding</td>
<td>- Introduction to integers</td>
<td>- Adding and subtracting fractions</td>
<td>- Decimal addition and subtraction</td>
<td>- Formulas and substitution</td>
</tr>
<tr>
<td>- Order of operations</td>
<td>- Adding and subtracting negative numbers</td>
<td>- Multiplying fractions</td>
<td>- Decimal division</td>
<td>- Patterns and rules</td>
</tr>
<tr>
<td>- Mixed whole number problems</td>
<td>- Simplifying addition and subtraction</td>
<td>- Dividing fractions</td>
<td>- Percentages, fractions and decimals</td>
<td>- Simplifying expressions with addition and subtraction</td>
</tr>
<tr>
<td>- Mental strategies</td>
<td>- Multiples, factors and divisibility</td>
<td>- Mixed fraction problems</td>
<td>- Using percentages</td>
<td>- The Cartesian plane</td>
</tr>
<tr>
<td>- Indices</td>
<td>- Primes and composites</td>
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<td>- Ratio</td>
<td>- Patterns and plotting points</td>
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<td>- More strategies for multiplication and division</td>
<td>- Prime factors</td>
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<td>- Rates</td>
<td>- Interpreting graphs</td>
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<td>- Estimating and rounding</td>
<td>- Introduction to integers</td>
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<td>Chapter 6</td>
<td>Chapter 7</td>
<td>Chapter 8</td>
<td>Chapter 9</td>
<td>Chapter 10</td>
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<tr>
<td>Measurement</td>
<td>Linear equations</td>
<td>Angles and shapes</td>
<td>Statistics and Probability</td>
<td>Transformation and visualisation</td>
</tr>
<tr>
<td>- Units of length</td>
<td>- Number sequences</td>
<td>- Measuring, estimating and drawing angles</td>
<td>- Collecting data</td>
<td>- Translations</td>
</tr>
<tr>
<td>- Perimeter</td>
<td>- Introduction equations</td>
<td>- Classifying and naming angles</td>
<td>- Measures of centre</td>
<td>- Reflections</td>
</tr>
<tr>
<td>- Area</td>
<td>- Solving equations using back tracking</td>
<td>- Angles and parallel lines</td>
<td>- Graphing univariate data</td>
<td>- Rotations</td>
</tr>
<tr>
<td>- Area of parallelogram</td>
<td>- Solving equations using balance method</td>
<td>- Polygons</td>
<td>- Comparing parts of the whole with graphs</td>
<td>- Combined transformations</td>
</tr>
<tr>
<td>- Area of triangles and composite shapes</td>
<td>- Solving problems with equations</td>
<td>- Triangles</td>
<td>- Graphing bivariate data</td>
<td>- Symmetry</td>
</tr>
<tr>
<td>- Volume</td>
<td></td>
<td>- Quadrilaterals</td>
<td>- Comparing data sets</td>
<td>- Drawing &amp; visualising 3D shapes</td>
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<tr>
<td></td>
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<td>- Compass instructions</td>
<td>- Probability and sample space</td>
<td>- Plan views and elevations</td>
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