# Year 10 Essentials Program 2015.
## Semester One

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<tr>
<th>Week</th>
<th>Context</th>
<th>Concepts and Content</th>
<th>References</th>
<th>Assessment</th>
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</table>
| 1    | Financial Mathematics (20 hours) | • Introduction to the course  
• Place value in whole numbers, fractions and decimals  
• Division of whole numbers by whole numbers  
• Calculator skills – whole numbers  
• Estimating sums and product by rounding to single digit numbers or multiples of 10  
• Use number skills in context including reading information from tables Equivalence, Approximation and rounding | Maths WA 1 chapter s1  
Heinemann 1 Chapters 1&2  
Mathematics 1A Number lessons 1 to 6 (pages 1 to 25) |  |
| 2    |         | • Meaning and use of decimals to 2 decimal places for money and measurement  
• Calculator skills –decimals  
• Addition and subtraction of decimals for money and measurement | Maths WA 1 chapter 4  
Heinemann 1 chapter 2 |  |
| 3 - 4|         | • Meaning and use of fractions  
• Addition and subtraction of fractions with the same denominator  
• Operations using fractions  
• Equivalent fractions | Maths WA 1 chapter 4  
Heinemann 1 chapter 2  
Mathematics 1A Number lessons 6 to 9 (pages 26 to 46) | Test 1: Calculations and Fractions |
| 5    |         | • Playing with numbers and number games | Mathematics 1A Number lessons 10 to 11 (pages 47 to 56) |  |
| 6 - 8|         | • Salaries and wages  
• Leave loading, overtime and special allowances  
• Commission, royalties and piecework  
• Income from Government allowances  
• GST (as an amount)Discount (as an amount not a percentage)  
• Reading bills  
• Budgets, saving, holidays  
• Credit cards and banking | Dollars and Cents  
Top Dollar  
Maths WA 2 Chapter 2  
Mathematics 1A Finance lessons 1 to 9 (pages 75 to 111) | T  
Project: (Finance) |
<table>
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<tr>
<th>9 - 10</th>
<th>Building and Renovating (12 hours)</th>
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<tbody>
<tr>
<td></td>
<td>• Units used to measure length</td>
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<tr>
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<td>• Length: Estimating by using known values</td>
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<td>• Calculate perimeters of shapes and generate shapes with specific perimeters (without formulas)</td>
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<p>| Maths WA 1 chapter 5 |
| Maths WA 2 chapter 3 |
| Mathematics 1A Measurement lessons 1 to 4, 6 and 7 (pages 112 to 129 and 134 to 141) |
| Possible homework - Invest p. 142 and 143 |
| Mathematics 1A |
| Test 2: Finance &amp; Calculation, fractions and finance. |</p>
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| 1    | Building and Renovating  | - Cross sections (‘Slice it’)  
- Transformations  
- Reading plans                                                                         | Maths WA 1 chapter 12  
Maths WA 2 Chapter 8  
Mathematics 1A Space lessons 1 to 7 (pages 155 to 188) | Project 2 (Measurement)                                      |
|      | (12 hours)               |                                                                                      |                                                               |                                     |
| 2    |                         | - Conversion  
- Perimeter  
- Identify geometric shapes  
- Solid shapes                                                                           | Mathematics 1A Space lessons 1 to 7 (pages 155 to 188)      |                                     |
| 3    | Time and mapping         | - Estimating time (‘A sense of time’)  
- Time differences within the calendar and in hours and minutes  
- Reading time and using timetables  
- Time conversions                                                                      | Maths WA 1 chapter 8  
Mathematics 1A Time lessons 1 to 5 (pages 57 to 72) | Exam:                                |
|      | (6 hours)                |                                                                                      |                                                               |                                     |
| 4    |                         | - Directions in two dimensions  
- Place key features on maps and follow directions on maps  
- Interpret maps and reading scales  
- Plan trips on public transport, times, routes, distances from starting points       | Maths WA 1 chapter 11  
Mathematics 1A Measurement lessons 5, 8 and 9 (pages 130 to 133 and 144 to 154) |                                     |
| 5 - 6| Finding out from data   | - The language of chance  
- Generate data using simple probability devices.  
- Read the short story. Discuss the terminology and probabilities involved in the story as it progresses.  
- List outcomes for chance events  
- Check likelihood predictions against experimental data  
- Interpret chance  
- Venn Diagrams and Two-way tables  
- Interpret data, including data presented in tables                                       | Maths WA 1 chapter 13  
Mathematics 1A Chance lessons 1 to 5 (pages 191 to 206) | Test 4: Mapping & Chance and Data                                        |
|      | (16 hours)               |                                                                                      |                                                               |                                     |
| 7 - 8 | Problem Solving (8 hours) | • Use a survey to answer questions of local interest  
• Formulate research questions  
• Collect data by survey  
• Create picture graphs on the computer. (This allows students to input data and the computer constructs and displays the graph using student instructions.) | Working Mathematically Tasks and Practical Problem Solving |
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<tr>
<td>9 - 10</td>
<td>OLNA Pre-Preparation Commences</td>
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