

**YISHUN SECONDARY SCHOOL**  
**ADDITIONAL MATHEMATICS**  
**SECONDARY 3 NORMAL ACADEMIC 2020**

| <b>Mathematics Curriculum</b>   |  | <b>Key Programmes</b>                     |
|---------------------------------|--|---|
| <b>Term 1</b>                   | <b>Chapter 1</b>   | <b>Assessment</b>                         |
| Week 0                          | 1.1 Quadratic functions of the form $y = a(x - p)(x - q)$  |   |
| Week 1                          | 1.2 Quadratic functions of the form $y = a(x - h)^2 + k$   |   |
| Week 2                          | 1.3 Conditions for quadratic curve to lie completely above or below x-axis<br>1.4 Quadratic functions in real-world contexts | Use of Desmos                             |
| Week 3                          | 2.1 Solving quadratic equations by completing the square<br>2.2 Solving quadratic equations using Quadratic formula          |   |
| Week 4<br>(CNY-Mon, Tue)        | 2.3 Solving linear and non-linear simultaneous equations   | Use of Desmos                             |
| Week 5                          | 2.4 Solving quadratic inequalities   |   |
| Week 6                          | 3.1 Surds<br>3.2 Simplifying expressions involving surds   | SLS                                       |
| Week 7                          | 3.3 Solving equations involving surds  |   |
| Week 8                          | Revision for WA  |   |
| Week 9                          | 4.1 Polynomials  | WA1 (50 min)<br>Chapter 1 to 3            |
| Week 10                         | 4.2 Remainder and Factor Theorem   |   |
| <b>March Holiday Assignment</b> |  |   |
| <b>Term 2</b>                   | <b>Learning Experiences<br/>(chapter, activity)</b>  | <b>Learning Outcomes &amp; Assessment</b> |
| Week 1                          | 4.3 Cubic expressions, equations and identities  |   |
| Week 2                          | 4.4 Partial Fractions  |   |
| Week 3<br>(Good Fri-Fri)        | 7.1 Mid-point of a Line Segment<br>7.2 Parallel and perpendicular lines  | Exploration through Reasoning             |
| Week 4                          | 7.3 Equation of straight line  |   |
| Week 5                          | 7.4 Areas of rectilinear figures   |   |

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|----------------------------------|---|--------------------|
| Week 6<br>(Labour Day-Fri)       | 7.5 Equations of Circles  |                    |
| Week 7<br>(Vesak Day-Thurs)      | 7.5 Equations of Circles  |                    |
| Week 8                           | 8.1 Why study Linear Law<br>8.2 Converting non-linear equation into linear form | WA2<br>Chapter 4,7 |
| Week 9                           | 8.3 Converting linear equation into non-linear form                             |                    |
| Week 10<br>(Hari Raya Puasa-Mon) | Elective Modules  |                    |

#### June Assignment

| Term 3  | Learning Experiences<br>(chapter, activity)                 | Learning Outcomes &<br>Assessment     |
|---|---|---------------------------------------|
| Week 1  | 8.4 Applications of Linear Law                              |                                       |
| Week 2<br>(Youth Day, Mon)                                      | 9.1 Trigonometric Ratios of acute angles and special angles |                                       |
| Week 3  | 9.2 Trigonometric Ratios of general angles                  |                                       |
| Week 4  | 9.3 Trigonometric functions and graphs                      |                                       |
| Week 5<br>(Hari Raya Haji-Fri)                                  | 10.1 Trigonometric equations                                |                                       |
| Week 6  | 10.2 Trigonometric identities                               |                                       |
| Week 7<br>(National Day-Mon)                                    | 10.3 Addition Formulae                                      |                                       |
| Week 8  | 10.4 Double Angle Formulae                                  |                                       |
| Week 9  | Revision for WA<br>10.5 Proving of identities               | WA3 (50 min)<br>Chapter 8,9,10.1,10.2 |
| Week 10<br>(Teachers' Day Celebration-Thurs, Teachers' Day-Fri) | 10.6 R-Formula  |                                       |

#### September Holiday Assignment

| Term 4 | Learning Experiences<br>(chapter, activity) | Learning Outcomes &<br>Assessment |
|--------|---|-----------------------------------|
| Week 1 |   | Revision                          |
| Week 2 |   | Revision<br>Advance Paper (Thu)   |

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| Week 3 -5 | <b>End of Year Examination and Script Checking</b> |
| Week 6    | <b>Headstart Programme</b>                         |
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