## MATHEMATICS GRADE 11 TERM 1 Tracker

| Topic 1: Exponents and Surds                           |           |            |       |         |          |            |            |                |           |  |
|--|-----------|------------|-------|---------|----------|------------|------------|----------------|-----------|--|
|  |           | CARC       |       | Ye      | ar:      |            | Year:      |                |           |  |
| CAPS Concepts and                                      | Time      | CAPS       |       | Cla     | ass      |            | Class      |                |           |  |
| Activities   | (Hrs)     | Page       |       |         |          |            |            |                |           |  |
|  | (*****)   | no.        |       | Date Co | mnleted  |            |            | Date Completed |           |  |
| Lesson 1   |           |            |       |         | Impiecee |            |            |                | Inpieceo  |  |
| Topic: Exponents and Surds                             | 1.5       | 30         |       |         |          |            |            |                |           |  |
| Revision   | 1.5       | 30         |       |         |          |            |            |                |           |  |
| <ul><li>Laws of exponents</li></ul>                    |           |            |       |         |          |            |            |                |           |  |
|  |           |            |       |         |          |            |            |                |           |  |
| Lesson 2   |           |            |       |         |          |            |            |                |           |  |
| Topic: Exponents and Surds                             | 2         | 30         |       |         |          |            |            |                |           |  |
| Simplification of expressions                          |           |            |       |         |          |            |            |                |           |  |
| using the laws   |           |            |       |         |          |            |            |                |           |  |
|  |           |            |       |         |          |            |            |                |           |  |
| Lesson 3   |           |            |       |         |          |            |            |                |           |  |
| Topic: Exponents and Surds                             | 2         | 30         |       |         |          |            |            |                |           |  |
| Rational exponents                                     |           |            |       |         |          |            |            |                |           |  |
|  |           |            |       |         |          |            |            |                |           |  |
| Lesson 4   |           |            |       |         |          |            |            |                |           |  |
| Topic: Exponents and Surds                             | 2         | 30         |       |         |          |            |            |                |           |  |
| <ul> <li>Exponential equations</li> </ul>              |           |            |       |         |          |            |            |                |           |  |
|  |           |            |       |         |          |            |            |                |           |  |
| Lesson 5   |           |            |       |         |          |            |            |                |           |  |
| Topic: Exponents and Surds                             | 2         | 30         |       |         |          |            |            |                |           |  |
| <ul> <li>Simplification of surds</li> </ul>            |           |            |       |         |          |            |            |                |           |  |
|  |           |            |       |         |          |            |            |                |           |  |
| Lesson 6   |           |            |       |         |          |            |            |                |           |  |
| Topic: Exponents and Surds                             | 2         | 30         |       |         |          |            |            |                |           |  |
| <ul> <li>Surd equations</li> </ul>                     |           |            |       |         |          |            |            |                |           |  |
| Lesson 7   |           |            |       |         |          |            |            |                |           |  |
|  | 2         | 20         |       |         |          |            |            |                |           |  |
| Topic: Exponents and Surds  Revision and consolidation | 2         | 30         |       |         |          |            |            |                |           |  |
| Revision and consolidation                             |           |            |       |         |          |            |            |                |           |  |
|  |           |            | Doffe | ction   |          |            |            |                |           |  |
| Think about and make a note of: What w                 | ent well? | Mhat did n |       |         | the      | What wil   | Lyou chan  | ge next tin    | ne2 Why2  |  |
| learners find difficult or easy to understa            |           |            |       |         |          | vviiat wii | i you chan | ge next till   | ie: wily: |  |
| learners? Did you cover all the work set               |           |            |       |         |          |            |            |                |           |  |
| track?   |           |            |       |         |          |            |            |                |           |  |
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|  |           |            |       |         |          |            |            |                |           |  |
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|  |           |            |       |         |          | HOD:       |            | Date:          |           |  |
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|  |           |            |       |         |          |            |            |                |           |  |
|  |           |            |       |         |          |            |            |                |           |  |

| Topic 2: Equations and Inequalities   |       |      |  |         |         |   |  |         |         |  |  |
|---|-------|------|--|---------|---------|---|--|---------|---------|--|--|
|   |       | CAPS |  | Year:   |         |   |  | Year:   |         |  |  |
| CAPS Concepts and   | Time  | Page |  | Cla     | ass     | r |  | Cla     | ass     |  |  |
| Activities  | (Hrs) | no.  |  |         |         |   |  |         |         |  |  |
|   |       |      |  | Date Co | mpleted |   |  | Date Co | mpleted |  |  |
| Lesson 1  | 2     | 2.0  |  |         |         |   |  |         |         |  |  |
| Topic: Equations and Inequalities   | 2     | 30   |  |         |         |   |  |         |         |  |  |
| Completeting the square;     maximum and minimum                                  |       |      |  |         |         |   |  |         |         |  |  |
| o complete the square on  |       |      |  |         |         |   |  |         |         |  |  |
| an expression   |       |      |  |         |         |   |  |         |         |  |  |
| <ul> <li>determine maximum or<br/>minimum represented by</li> </ul>               |       |      |  |         |         |   |  |         |         |  |  |
| the expression in the form  |       |      |  |         |         |   |  |         |         |  |  |
| $a(x-p)^2+q.$   |       |      |  |         |         |   |  |         |         |  |  |
| Lesson 2  |       |      |  |         |         |   |  |         |         |  |  |
| Topic: Equations and  | 1     | 30   |  |         |         |   |  |         |         |  |  |
| Inequalities  |       |      |  |         |         |   |  |         |         |  |  |
| <ul> <li>Solve quadratic equations by<br/>completing the square</li> </ul>        |       |      |  |         |         |   |  |         |         |  |  |
| completing the square   |       |      |  |         |         |   |  |         |         |  |  |
| Lesson 3  |       |      |  |         |         |   |  |         |         |  |  |
| Topic: Equations and  | 1     | 30   |  |         |         |   |  |         |         |  |  |
| Inequalities  |       |      |  |         |         |   |  |         |         |  |  |
| <ul> <li>Solving quadratic equations by factorising</li> </ul>                    |       |      |  |         |         |   |  |         |         |  |  |
| lactorising   |       |      |  |         |         |   |  |         |         |  |  |
| Lesson 4  |       |      |  |         |         |   |  |         |         |  |  |
| Topic: Equations and  | 1     | 30   |  |         |         |   |  |         |         |  |  |
| Inequalities  |       |      |  |         |         |   |  |         |         |  |  |
| <ul> <li>Solving quadratic equations<br/>with fractions</li> </ul>                |       |      |  |         |         |   |  |         |         |  |  |
|   |       |      |  |         |         |   |  |         |         |  |  |
| Lesson 5  |       |      |  |         |         |   |  |         |         |  |  |
| Topic: Equations and  | 1     | 30   |  |         |         |   |  |         |         |  |  |
| Inequalities  |       |      |  |         |         |   |  |         |         |  |  |
| <ul> <li>Solving quadratic equations<br/>equations using the quadratic</li> </ul> |       |      |  |         |         |   |  |         |         |  |  |
| formula   |       |      |  |         |         |   |  |         |         |  |  |
| Losson C  |       |      |  |         |         |   |  |         |         |  |  |
| Lesson 6 Topic: Equations and   | 1.5   | 30   |  |         |         |   |  |         |         |  |  |
| Inequalities  | 1.5   | 30   |  |         |         |   |  |         |         |  |  |
| Simultaneous equations  |       |      |  |         |         |   |  |         |         |  |  |
| o solve simultaneous  |       |      |  |         |         |   |  |         |         |  |  |
| equations where one is quadratic and the other is                                 |       |      |  |         |         |   |  |         |         |  |  |
| linear.   |       |      |  |         |         |   |  |         |         |  |  |
|   |       |      |  |         |         |   |  |         |         |  |  |

| Lesson 7  |            |             |            |             |        |      |            |             |         |  |
|---|------------|-------------|------------|-------------|--------|------|------------|-------------|---------|--|
| Topic: Equations and Inequalities  Solve word problems  | 1          | 30          |            |             |        |      |            |             |         |  |
| Lesson 8  |            |             |            |             |        |      |            |             |         |  |
| <ul><li>Topic: Equations and</li><li>Inequalities</li><li>Solve quadratic inequalities</li></ul>                                    | 2          | 30          |            |             |        |      |            |             |         |  |
| Lesson 9  |            |             |            |             |        |      |            |             |         |  |
| Topic: Equations and Inequalities  Nature of roots Discuss the nature of roots of a quadratic function.                             | 1.5        | 30          |            |             |        |      |            |             |         |  |
| Lesson 10   |            |             |            |             |        |      |            |             |         |  |
| Topic: Equations and Inequalities  Revision and consolidation   | 1.5        | 30          |            |             |        |      |            |             |         |  |
|   |            |             | Refle      |             |        |      |            |             |         |  |
| hink about and make a note of: What we learners find difficult or easy to understal learners? Did you cover all the work set track? | and or do? | What will y | ou do to s | upport or e | extend |      | l you chan | ge next tim | e? Why? |  |
|   |            |             |            |             |        | HOD: |            | Date:       |         |  |

| Topic 3: Number Patterns   |       |             |    |         |         |                                      |       |         |         |  |
|--|-------|-------------|----|---------|---------|--------------------------------------|-------|---------|---------|--|
|  |       | CAPS        |    | Ye      | ar:     |                                      | Year: |         |         |  |
| CAPS Concepts and  | Time  |             |    | Cla     | ass     |                                      | Class |         |         |  |
| Activities   | (Hrs) | Page<br>no. |    |         |         |                                      |       |         |         |  |
|  | 110.  |             |    | Date Co | mpleted |                                      |       | Date Co | mpleted |  |
| Lesson 1   |       |             |    |         |         |                                      |       |         |         |  |
| Topic: Number patterns   | 2.5   | 30          |    |         |         |                                      |       |         |         |  |
| Revision of linear number     netterns   |       |             |    |         |         |                                      |       |         |         |  |
| patterns   |       |             |    |         |         |                                      |       |         |         |  |
| Lesson 2   |       |             |    |         |         |                                      |       |         |         |  |
| Topic: Number patterns   | 3.5   | 30          |    |         |         |                                      |       |         |         |  |
| Quadratic patterns   |       |             |    |         |         |                                      |       |         |         |  |
| o recognise a quadratic  |       |             |    |         |         |                                      |       |         |         |  |
| pattern o find the general term of a   |       |             |    |         |         |                                      |       |         |         |  |
| quadratic pattern  |       |             |    |         |         |                                      |       |         |         |  |
| o find a term in a given   |       |             |    |         |         |                                      |       |         |         |  |
| position of a quadratic pattern  |       |             |    |         |         |                                      |       |         |         |  |
| o find the position of a term  |       |             |    |         |         |                                      |       |         |         |  |
| in a quadratic pattern.  |       |             |    |         |         |                                      |       |         |         |  |
|  |       |             |    |         |         |                                      |       |         |         |  |
| Lesson 3   |       |             |    |         |         |                                      |       |         |         |  |
| Topic: Number patterns   | 3     | 30          |    |         |         |                                      |       |         |         |  |
| Revision and consolidation   | J     | 30          |    |         |         |                                      |       |         |         |  |
|  |       |             |    |         |         |                                      |       |         |         |  |
|  |       |             |    |         |         |                                      |       |         |         |  |
|  |       |             |    | Reflec  |         |                                      |       |         |         |  |
| Think about and make a note of: What w   |       |             |    |         |         | What will you change next time? Why? |       |         |         |  |
| learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you cover all the work set for the week? If not, how will you get back on |       |             |    |         |         |                                      |       |         |         |  |
| track?   |       |             |    |         |         |                                      |       |         |         |  |
|  |       |             |    |         |         |                                      |       |         |         |  |
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|  |       |             |    |         |         |                                      |       |         |         |  |
|  |       |             |    |         |         |                                      |       |         |         |  |
|  |       | - 7.        | ,- |         |         | HOD:                                 |       | Date:   |         |  |

| Topic 4: Analytical Geometry   |       |      |       |         |         |   |       |         |         |  |  |
|--|-------|------|-------|---------|---------|---|-------|---------|---------|--|--|
|  |       |      | Year: |         |         |   | Year: |         |         |  |  |
| CAPS Concepts and  | Time  | CAPS |       | Cla     | ass     |   |       | Cla     | ass     |  |  |
| Activities   | (Hrs) | Page |       |         |         |   |       |         |         |  |  |
|  | no.   |      |       | Date Co | mpleted | İ |       | Date Co | mpleted |  |  |
| Lesson 1   |       |      |       |         |         |   |       |         |         |  |  |
| <ul> <li>Topic: Analytical geometry</li> <li>Revision of Analytical geometry         <ul> <li>distance between two points</li> <li>gradient of a line segment</li> <li>mid-point of a line segment.</li> </ul> </li> </ul> | 3     | 31   |       |         |         |   |       |         |         |  |  |
| Lesson 2   |       |      |       |         |         |   |       |         |         |  |  |
| Topic: Analytical geometry  ■ Finding equations of straight lines  □ two points  □ one point and information regarding the gradient (parallel or perpendicular).   | 2.5   | 31   |       |         |         |   |       |         |         |  |  |
| Lesson 3   |       |      |       |         |         |   |       |         |         |  |  |
| Topic: Analytical geometry  Investigation  complete an investigation on the angle of inclination.  | 1     | 31   |       |         |         |   |       |         |         |  |  |
| Lesson 4   |       |      |       |         |         |   |       |         |         |  |  |
| Topic: Analytical geometry  • Finding the inclination of a line  | 3     | 31   |       |         |         |   |       |         |         |  |  |
| Lesson 5   |       |      |       |         |         |   |       |         |         |  |  |
| Topic: Analytical geometry  Revision and consolidation  Term 1 Test  | 3     | 31   |       |         |         |   |       |         |         |  |  |
| Test  • Complete the test  | 1     | 31   |       |         |         |   |       |         |         |  |  |

## NECT LEARNING PROGRAMME: Mathematics GRADE 11 TERM 1 TRACKER

| Reflection   |                    |                    |  |  |  |  |  |  |
|--|--------------------|--------------------|--|--|--|--|--|--|
| Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you cover all the work set for the week? If not, how will you get back on track? | What will you chan | ge next time? Why? |  |  |  |  |  |  |
|  | HOD:               | Date:              |  |  |  |  |  |  |