# Mathematics Curriculum Area Plan

## Number and Algebra

### Sample Program – years 7 to 10

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Approx. hours of teaching** | **3** | **6** | **9** | **12** | **15** | **18** | **21** | **24** | **27** | **30** | **33** | **36** | **39** |
| **Year 7**  | **Semester 1** | **Whole numbers, factors and multiples 7.1.2** | **Number puzzles and patterns - 7.1.5** | **Integers, fractions and number lines - 7.1.6** |  |  |  |  |  |  |
| Sub-strand: Number and place value | Sub-strand: Patterns and algebra | Sub-strands: Real numbers; Number and place value |  |  |  |  |  |  |
| **Semester 2** | **Fractions - 7.2.1** | **Patterns, rules and equations - 7.2.2** | **Decimals, percentages and simple ratios** **7.2.4** | **Coordinates, graphs and transformations 7.2.5** | **Time and money - 7.2.6** |  |
| Sub-strand: Real numbers | Sub-strand: Patterns and algebra | Sub-strand: Real numbers | Sub-strand: Patterns and algebra | Sub-strand: Money and financial mathematics |  |
| ***(See measurement and geometry)*** | ***(see measurement and geometry)*** |
| **Year 8**  | **Semester 1** | **Positive and negative integers - 8.1.1** | **Maps, networks and coordinates - 8.1.2** | **Money and Percentages 8.1.6** | **Algebra Expressions - 8.1.7** |  |  |  |  |
| Sub-strand: Number and place value | Sub-strand: Linear and non-linear relationships | Sub-strand: Money and financial mathematics; Real numbers | Sub-strand: Patterns and algebra |  |  |  |  |
| **Semester 2** | **Linear functions and graphs - 8.2.1** | **Real numbers and indices** **- 8.2.2** | **Linear equations - 8.2.4** | **Ratios and rates - 8.2.7** |  |  |
| Sub-strand: Patterns and algebra; Linear and non-linear relationships | Sub-strand: Real numbers | Sub-strand: Patterns and algebra | Sub-strand: Real numbers |  |  |
| **Year 9**  | **Semester 1** | **Number and financial mathematics - 9.1.1** | **Algebra techniques - 9.1.3** | **Linear relations and coordinate geometry - 9.1.4** | **Rate, ratio and proportion****9.1.5** |  |  |  |  |
| Sub-strand: Real numbers; Money and financial mathematics | Sub-strand: Patterns and algebra | Sub-strand: Patterns and algebra | Sub-strand: Patterns and algebra |  |  |  |  |
| **Semester 2** | **Linear equations - 9.2.2** | **Indices and scientific notation - 9.2.3** | **Further algebra - 9.2.6** | **Non-linear relations - 9.2.7** |  |  |  |  |
| Sub-strand: Linear and non-linear relationships | Sub-strand: Real numbers; Patterns and algebra | Sub-strand: Patterns and algebra | Sub-strand: Patterns and algebra |  |  |  |  |
| **Year 10**  | **Semester 1** | **Linear relationships - 10.1.2** | **Number and financial applications - 10.1.4** | **Coordinates geometry and simultaneous equations 10.1.5** | **Algebra techniques - 10.1.6** |  |  |
| Sub-strand: Linear and non-linear relationships | Sub-strand: Real numbers; Money and financial mathematics; Patterns and algebra | Sub-strand: Patterns and algebra | Sub-strand: Patterns and algebra |  |  |
| **Semester 2** | **Quadratic functions - 10.2.1** | **Relations and their graphs - 10.2.6** |  |  |  |  |  |  |
| Sub-strand: Linear and non-linear relationships | Sub-strand: Linear and non-linear relationships |  |  |  |  |  |  |
|  | **Approx. hours of teaching** | **3** | **6** | **9** | **12** | **15** | **18** | **21** | **24** | **27** | **30** | **33** | **36** | **39** |
| **Key** | **Number and Algebra sub-strand** |  | **Topic, level, semester and sequence** |