# WRM – Year 7 Scheme of Learning

White Rose Maths

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | **Algebraic Thinking** | | | | | | **Place Value and Proportion** | | | | | |
| | Sequences | | Understand and use algebraic notation | | Equality and equivalence | | Place value and ordering integers and decimals | | | Fraction, decimal and percentage equivalence | | |
| **Spring** | **Applications of Number** | | | | | | **Directed Number** | | | **Fractional Thinking** | | |
| | Solving problems with addition & subtraction | | Solving problems with multiplication and division | | | Fractions & percentages of amounts | Operations and equations with directed number | | | Addition and subtraction of fractions | | |
| **Summer** | **Lines and Angles** | | | | | | **Reasoning with Number** | | | | | |
| | Constructing, measuring and using geometric notation | | | Developing geometric reasoning | | | Developing number sense | | Sets and probability | | Prime numbers and proof | |

# WRM – Year 8 Scheme of Learning

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | **Proportional Reasoning** | | | | | | **Representations** | | | | | |
| | Ratio and scale | | Multiplicative change | | Multiplying and dividing fractions | | Working in the Cartesian plane | | | Representing data | | Tables & Probability |
| **Spring** | **Algebraic techniques** | | | | | | **Developing Number** | | | | | |
| | Brackets, equations and inequalities | | | | Sequences | Indices | Fractions and percentages | | | Standard index form | | Number sense |
| **Summer** | **Developing Geometry** | | | | | | **Reasoning with Data** | | | | | |
| | Angles in parallel lines and polygons | | | Area of trapezia and circles | | Line symmetry and reflection | The data handling cycle | | | | | Measures of location |

# WRM – Year 9 Scheme of Learning

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | **Reasoning with Algebra** | | | | | | **Constructing in 2 and 3 Dimensions** | | | | | |
| | Straight line graphs | | Forming and solving equations | | Testing conjectures | | Three-dimensional shapes | | | Constructions and congruency | | |
| **Spring** | **Reasoning with Number** | | | | | | **Reasoning with Geometry** | | | | | |
| | Numbers | | Using percentages | | Maths and money | | Deduction | | Rotation and translation | | Pythagoras' Theorem | |
| **Summer** | **Reasoning with Proportion** | | | | | | **Representations and Revision** | | | | | |
| | Enlargement and similarity | | Solving ratio & proportion problems | | Rates | | Probability | | Algebraic representation | Revision | | |

# WRM – Year 10 Scheme of Learning

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | **Similarity** | | | | | | **Developing Algebra** | | | | | |
| | Congruence, similarity and enlargement | | Trigonometry | | | | Representing solutions of equations and inequalities | | | Simultaneous equations | | |
| **Spring** | **Geometry** | | | | | | **Proportions and Proportional Change** | | | | | |
| | Angles & bearings | | Working with circles | | Vectors | | Ratios & fractions | | Percentages and Interest | | Probability | |
| **Summer** | **Delving into data** | | | | **Using number** | | | | | | **Expressions** | |
| | Collecting, representing and interpreting data | | | | Non-calculator methods | | Types of number and sequences | | Indices and Roots | | Manipulating expressions | |

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | **Graphs** | | | | | | **Algebra** | | | | | |
| | Gradients & lines | | Non-linear graphs | | Using graphs | | Expanding & factorising | | Changing the subject | | Functions | |
| **Spring** | **Reasoning** | | | | | | **Revision and Communication** | | | | | |
| | Multiplicative | | Geometric | | Algebraic | | Transforming & constructing | | | Listing & describing | Show that… | |
| **Summer** | **Revision** | | | | | | **Examinations** | | | | | |

# Year 12 A Level Maths (Edexcel)

| | | Week | | Unit | Title | Homework every week A | Unit | Title | Homework every week B |
|---|---|---|---|---|---|---|---|---|---|
| 04/09/2023 | Monday | A | | Staff Training Day | | | | | |
| | | | | | | | | | |
| 08/09/2023 | Friday | | | Algebra and functions | | Baseline Test | Algebra and functions | | Baseline Test |
| | | | | | | | | | |
| 11/09/2023 | Monday | B | | | | | | | HM1 |
| 12/09/2023 | Tuesday | | | | | | | | |
| 13/09/2023 | Wednesday | | | Algebra and Functions | Algebra expressions | | Algebra and functions | Quadratics | |
| 14/09/2023 | Thursday | | | | | | | | |
| 15/09/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 18/09/2023 | Monday | A | | | | HM2 | | | |
| 19/09/2023 | Tuesday | | | | | | | | |
| 20/09/2023 | Wednesday | | | Algebra and Functions | Algebra expressions & Graphs and transformations | | Algebra and functions | Quadratics | |
| 21/09/2023 | Thursday | | | | | | | | |
| 22/09/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 25/09/2023 | Monday | B | | | | | | | HM3 |
| 26/09/2023 | Tuesday | | | | | | | | |
| 27/09/2023 | Wednesday | | | Algebra and Functions | Graphs and transformations | | Algebra and functions | Equations and Inequalities | |
| 28/09/2023 | Thursday | | | | | | | | |
| 29/09/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 02/10/2023 | Monday | A | | | | HM4 | | | |
| 03/10/2023 | Tuesday | | | | | Review exercise | | | |
| 04/10/2023 | Wednesday | | | Algebra and Functions | Graphs and transformations | Unit Test | Algebra and functions | Equations and Inequalities | |
| 05/10/2023 | Thursday | | | | | | | | |
| 06/10/2023 | Friday | | | | | | | | |
| 09/10/2023 | Monday | B | | | | | | | HM5 |
| 10/10/2023 | Tuesday | | | | | | | | |
| 11/10/2023 | Wednesday | | | Further Algebra | Algebraic division, factor theorem and proof | | Coordinate Geometry in x-y plane | Straight line graphs | |
| 12/10/2023 | Thursday | | | | | | | | |
| 13/10/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 16/10/2023 | Monday | A | | | | HM6 | | | |
| 17/10/2023 | Tuesday | | | | | | | | |
| 18/10/2023 | Wednesday | | | Further Algebra | Algebraic division, factor theorem and proof | | Coordinate Geometry in x-y plane | Straight line graphs | |
| 19/10/2023 | Thursday | | | | | | | | |
| 20/10/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| | | | | Half Term | | | | | |

| Date | Day | Group | | Topic | Subtopic | HW | Topic | Subtopic | HW |
|---|---|---|---|---|---|---|---|---|---|
| 06/11/2024 | Monday | B | | Further Algebra | Algebraic division, factor theorem and proof | | Coordinate Geometry in x-y plane | Circles | HM7 |
| 07/11/2024 | Tuesday | | | | | | | | |
| 08/11/2024 | Wednesday | | | | | | | | |
| 09/11/2024 | Thursday | | | | | | | | |
| 10/11/2024 | Friday | | | | | | | | |
| 13/11/2023 | Monday | A | | Further Algebra | The binomial expansion | HM8 | Coordinate Geometry in x-y plane | Circles | |
| 14/11/2023 | Tuesday | | | | | | | | |
| 15/11/2023 | Wednesday | | | | | | | | |
| 16/11/2023 | Thursday | | | | | | | | |
| 17/11/2023 | Friday | | | | | | | | |
| 20/11/2023 | Monday | B | | Further Algebra | The binomial expansion | | Coordinate Geometry in x-y plane | Circles | HM9 |
| 21/11/2023 | Tuesday | | | | | | | | Review exercise |
| 22/11/2023 | Wednesday | | | | | | | | Unit Test |
| 23/11/2023 | Thursday | | | | | | | | |
| 24/11/2023 | Friday | | | Staff Training Day | | | | | |
| 27/11/2023 | Monday | A | | Further Algebra | The binomial expansion | HM10 | Trigonometry | Trigonometric identities and equations | |
| 28/11/2023 | Tuesday | | | | | Review exercise | | | |
| 29/11/2023 | Wednesday | | | | | Unit Test | | | |
| 30/11/2023 | Thursday | | | | | | | | |
| 01/12/2023 | Friday | | | | | | | | |
| 04/12/2023 | Monday | B | | Trigonometry | Trigonometric ratios and graphs | | Trigonometry | Trigonometric identities and equations | HM11 |
| 05/12/2023 | Tuesday | | | | | | | | |
| 06/12/2023 | Wednesday | | | | | | | | |
| 07/12/2023 | Thursday | | | | | | | | |
| 08/12/2023 | Friday | | | | | | | | |
| 11/12/2023 | Monday | A | | Trigonometry | Trigonometric ratios and graphs | HM12 | Trigonometry | Trigonometric identities and equations | |
| 12/12/2023 | Tuesday | | | | | | | | |
| 13/12/2023 | Wednesday | | | | | | | | |
| 14/12/2023 | Thursday | | | | | | | | |
| 15/12/2023 | Friday | | | | | | | | |
| 18/12/2023 | Monday | B | | Trigonometry | Trigonometric ratios and graphs | | Trigonometry | Trigonometric identities and equations | HM13 |
| 19/12/2023 | Tuesday | | | | | | | | |
| 20/12/2023 | Wednesday | | | | | | | | |
| | | | | Christmas Holiday | | | | | |
| 03/01/2024 | Wednesday | A | | Staff Training Day | | | | | |
| 04/01/2024 | Thursday | | | Vectors | Definitions, magnitude/direction, addition and scalar multiplication | HM14 | Trigonometry | Trigonometric identities and equations | Review exercise |
| 05/01/2024 | Friday | | | | | | | | Unit Test |
| 08/01/2024 | Monday | B | | Vectors | Definitions, magnitude/direction, addition and scalar multiplication | | Differentiation | Definition, differentiating polynomials, second derivatives | HM15 |
| 09/01/2024 | Tuesday | | | | | | | | |
| 10/01/2024 | Wednesday | | | | | | | | |
| 11/01/2024 | Thursday | | | | | | | | |
| 12/01/2024 | Friday | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| 15/01/2024 | Monday | A | | | Vectors | Definitions, magnitude/direction, addition and scalar multiplication | HM16 | Differentiation | Definition, differentiating polynomials, second derivatives | |
| 16/01/2024 | Tuesday | | | | | | | | | |
| 17/01/2024 | Wednesday | | | | | | | | | |
| 18/01/2024 | Thursday | | | | | | | | | |
| 19/01/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 22/01/2024 | Monday | B | | | Vectors | Position vectors, distance between two points, geometric problems | | Differentiation | Gradients, tangents, normals, maxima and minima | HM17 |
| 23/01/2024 | Tuesday | | | | | | | | | |
| 24/01/2024 | Wednesday | | | | | | | | | |
| 25/01/2024 | Thursday | | | | | | | | | |
| 26/01/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 29/01/2024 | Monday | A | | | Vectors | Position vectors, distance between two points, geometric problems | HM18 | Differentiation | Gradients, tangents, normals, maxima and minima | |
| 30/01/2024 | Tuesday | | | | | | | | | |
| 31/01/2024 | Wednesday | | | | | | | | | |
| 01/02/2024 | Thursday | | | | | | | | | |
| 02/02/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 05/02/2024 | Monday | B | | | Vectors | Position vectors, distance between two points, geometric problems | **Review exercise** <br> Unit Test | Differentiation | Gradients, tangents, normals, maxima and minima | HM19 <br> **Review exercise** <br> Unit Test |
| 06/02/2024 | Tuesday | | | | | | | | | |
| 07/02/2024 | Wednesday | | | | | | | | | |
| 08/02/2024 | Thursday | | | | | | | | | |
| 09/02/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | **Half Term** | | | | | |
| 12/02/2024 | Monday | A | | | Integration | Definition as opposite of differentiation | HM20 | Exponentials and logarithms | Exponential functions and natural logarithms | |
| 13/02/2024 | Tuesday | | | | | | | | | |
| 14/02/2024 | Wednesday | | | | | | | | | |
| 15/02/2024 | Thursday | | | | | | | | | |
| 16/02/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 26/02/2024 | Monday | B | | | Integration | Definition as opposite of differentiation | | Exponentials and logarithms | Exponential functions and natural logarithms | HM21 |
| 27/02/2024 | Tuesday | | | | | | | | | |
| 28/02/2024 | Wednesday | | | | | | | | | |
| 29/02/2024 | Thursday | | | | | | | | | |
| 01/03/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 04/03/2024 | Monday | A | | | Integration | Definite integrals and areas under curves | HM22 | Exponentials and logarithms | Direct impact of elastic spheres. Newton's law of restitution. Loss of kinetic energy due to impact | |
| 05/03/2024 | Tuesday | | | | | | | | | |
| 06/03/2024 | Wednesday | | | | | | | | | |
| 07/03/2024 | Thursday | | | | | | | | | |
| 08/03/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 11/03/2024 | Monday | B | | | Integration | Definite integrals and areas under curves | | Exponentials and logarithms | Exponential functions and natural logarithms | HM23 |
| 12/03/2024 | Tuesday | | | | | | | | | |
| 13/03/2024 | Wednesday | | | | | | | | | |
| 14/03/2024 | Thursday | | | | | | | | | |
| 15/03/2024 | Friday | | | | | | | | | |

| Date | Day | Grp | | | Topic | Subtopic | Notes | Topic | Subtopic | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 18/03/2024 | Monday | A | | | Integration | Definite integrals and areas under curves | HM24 | Exponentials and logarithms | Exponential functions and natural logarithms | Review exercise |
| 19/03/2024 | Tuesday | | | | | | Review exercise | | | Unit Test |
| 20/03/2024 | Wednesday | | | | | | Unit Test | | | |
| 21/03/2024 | Thursday | | | | | | | | | |
| 22/03/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 25/03/2024 | Monday | B | | | Quantities and units in mechanics | Introduction to mathematical modelling and standard S.I. units of length, time and mass | | Statistical sampling | Introduction to sampling terminology&and use sampling techniques | HM25 |
| 26/03/2024 | Tuesday | | | | | | | | | |
| 27/03/2024 | Wednesday | | | | | | | | | |
| 28/03/2024 | Thursday | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | **Easter Holiday** | | | | | |
| | | | | | | | | | | |
| 15/04/2024 | Monday | A | | | **Staff Training Day** | | | | | |
| 16/04/2024 | Tuesday | | | | **Year 12 Mock Examinations** | | | | | |
| 17/04/2024 | Wednesday | | | | | | | | | |
| 18/04/2024 | Thursday | | | | | | | | | |
| 19/04/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 22/04/2024 | Monday | B | | | Kinematics 1 (constant acceleration) | Graphical representation of velocity, acceleration and displacement | HM26 | Statistical sampling | Introduction to sampling terminology&and use sampling techniques | Review exercise |
| 23/04/2024 | Tuesday | | | | | | | | | Unit Test |
| 24/04/2024 | Wednesday | | | | | | | | | |
| 25/04/2024 | Thursday | | | | | | | | | |
| 26/04/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 29/04/2024 | Monday | A | | | Kinematics 1 (constant acceleration) | Graphical representation of velocity, acceleration and displacement | | Data presentation and interpretation | Calculation and interpretation of measures of location and measures of variation; Understand and use coding | HM27 |
| 30/04/2024 | Tuesday | | | | | | | | | |
| 01/05/2024 | Wednesday | | | | | | | | | |
| 02/05/2024 | Thursday | | | | | | | | | |
| 03/05/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 06/05/2024 | Monday | B | | | Kinematics 1 (constant acceleration) | Motion in a straight line under constant acceleration; suvat formulae ; Vertical motion under gravity | HM28 | Data presentation and interpretation | Calculation and interpretation of measures of location and measures of variation; Understand and use coding | |
| 07/05/2024 | Tuesday | | | | | | | | | |
| 08/05/2024 | Wednesday | | | | | | | | | |
| 09/05/2024 | Thursday | | | | | | | | | |
| 10/05/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 13/05/2024 | Monday | A | | | Kinematics 1 (constant acceleration) | Motion in a straight line under constant acceleration; suvat formulae ; Vertical motion under gravity | Review exercise | Data presentation and interpretation | Interpret diagrams for single-variable data; Interpret scatter diagrams and regression lines; Recognise outliers | HM29 |
| 14/05/2024 | Tuesday | | | | | | Unit Test | | | |
| 15/05/2024 | Wednesday | | | | | | | | | |
| 16/05/2024 | Thursday | | | | | | | | | |
| 17/05/2024 | Friday | | | | | | | | | |
| | | | | | | | | | | |
| 20/05/2024 | Monday | B | | | Forces & Newton's laws | Newton's first law, force diagrams, equilibrium, introduction to i, j system | HM30 | Data presentation and interpretation | Interpret diagrams for single-variable data; Interpret scatter diagrams and regression lines; Recognise outliers | Review exercise |
| 21/05/2024 | Tuesday | | | | | | | | | Unit Test |
| 22/05/2024 | Wednesday | | | | | | | | | |
| 23/05/2024 | Thursday | | | | | | | | | |
| 24/05/2024 | Friday | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Half Term** | | | | |

| Date | Day | Week | | | Topic | Content | Assessment | Topic | Content | Assessment |
|---|---|---|---|---|---|---|---|---|---|---|
| 03/06/2024 | Monday | A | | | Forces & Newton's laws | Newton's first law, force diagrams, equilibrium, introduction to i, j system | | Probability | Mutually exclusive events; Independent events | HM31 |
| 04/06/2024 | Tuesday | | | | | | | | | |
| 05/06/2024 | Wednesday | | | | | | | | | |
| 06/06/2024 | Thursday | | | | | | | | | |
| 07/06/2024 | Friday | | | | | | | | | |
| 10/06/2024 | Monday | B | | | Forces & Newton's laws | Newton's second law, (no resolving forces or use of F = μR); Newton's third law: equilibrium, smooth pulley problems | HM32 | Probability | Mutually exclusive events; Independent events | Review exercise / Unit Test |
| 11/06/2024 | Tuesday | | | | | | | | | |
| 12/06/2024 | Wednesday | | | | | | | | | |
| 13/06/2024 | Thursday | | | | | | | | | |
| 14/06/2024 | Friday | | | | | | | | | |
| 17/06/2024 | Monday | A | | | Forces & Newton's laws | Newton's second law, (no resolving forces or use of F = μR); Newton's third law: equilibrium, smooth pulley problems | Review exercise / Unit Test | Statistical Distributions | Use and identify discrete distributions; Calculate probabilities using the binomial distribution (calculator use expected) | HM33 |
| 18/06/2024 | Tuesday | | | | | | | | | |
| 19/06/2024 | Wednesday | | | | | | | | | |
| 20/06/2024 | Thursday | | | | | | | | | |
| 21/06/2024 | Friday | | | | | | | | | |
| 24/06/2024 | Monday | B | | | Kinematics 2 (variable acceleration) | Variable force; Calculus to determine rates of change for kinematics | HM34 | Statistical Distributions | Use and identify discrete distributions; Calculate probabilities using the binomial distribution (calculator use expected) 2 directed towards the centre of the circle; | Review exercise / Unit Test |
| 25/06/2024 | Tuesday | | | | | | | | | |
| 26/06/2024 | Wednesday | | | | | | | | | |
| 27/06/2024 | Thursday | | | | | | | | | |
| 28/06/2024 | Friday | | | | | | | | | |
| 01/07/2024 | Monday | A | | | Kinematics 2 (variable acceleration) | Variable force; Calculus to determine rates of change for kinematics | | Statistical Hypothesis Testing | Language of hypothesis testing; Significance levels 2 directed towards the centre of the circle; | HM35 |
| 02/07/2024 | Tuesday | | | | | | | | | |
| 03/07/2024 | Wednesday | | | | | | | | | |
| 04/07/2024 | Thursday | | | | | | | | | |
| 05/07/2024 | Friday | | | | | | | | | |
| 08/07/2024 | Monday | B | | | Kinematics 2 (variable acceleration) | Use of integration for kinematics problems i.e. r = ∫ vdt, v = ∫ adt | HM36 | Statistical Hypothesis Testing | Carry out hypothesis tests involving the binomial distribution | |
| 09/07/2024 | Tuesday | | | | | | | | | |
| 10/07/2024 | Wednesday | | | | | | | | | |
| 11/07/2024 | Thursday | | | | | | | | | |
| 12/07/2024 | Friday | | | | | | | | | |
| 15/07/2024 | Monday | | | | Kinematics 2 (variable acceleration) | Use of integration for kinematics problems i.e. r = ∫ vdt, v = ∫ adt | Review exercise / Unit Test | Statistical Hypothesis Testing | Carry out hypothesis tests involving the binomial distribution | Review exercise / Unit Test |
| 16/07/2024 | Tuesday | A | | | | | | | | |
| 17/07/2024 | Wednesday | | | | | | | | | |
| 18/07/2024 | Thursday | | | | | | | | | |
| 19/07/2024 | Friday | | | | **Staff Training Day** | | | | | |

# Year 12 Further Maths (Edexcel)

| | | Week | | Unit | Title | Homework every week A | Unit | Title | Homework every week B |
|---|---|---|---|---|---|---|---|---|---|
| 04/09/2023 | Monday | A | | Staff Training Day | | | | | |
| 08/09/2023 | Friday | | | Complex numbers (part 1) | Introduction of complex numbers, basic manipulation | | Matrices | Matrix addition, subtraction and multiplication | |
| 11/09/2023 | Monday | B | | | | | | | HM1 |
| 12/09/2023 | Tuesday | | | | | | | | |
| 13/09/2023 | Wednesday | | | Complex numbers (part 1) | Introduction of complex numbers, basic manipulation | | Matrices | Matrix addition, subtraction and multiplication | |
| 14/09/2023 | Thursday | | | | | | | | |
| 15/09/2023 | Friday | | | | | | | | |
| 18/09/2023 | Monday | A | | | | HM2 | | | |
| 19/09/2023 | Tuesday | | | | | Review exercise | | | |
| 20/09/2023 | Wednesday | | | Complex numbers (part 1) | Argand diagrams | Unit Test | Matrices | Inverse of 2×2 and 3×3 matrices | |
| 21/09/2023 | Thursday | | | | | | | | |
| 22/09/2023 | Friday | | | | | | | | |
| 25/09/2023 | Monday | B | | | | | | | HM3 |
| 26/09/2023 | Tuesday | | | | | | | | |
| 27/09/2023 | Wednesday | | | Complex numbers (part 2) | Argand diagrams & Modulus and argument | | Matrices | Inverse of 2×2 and 3×3 matrices | |
| 28/09/2023 | Thursday | | | | | | | | |
| 29/09/2023 | Friday | | | | | | | | |
| 02/10/2023 | Monday | A | | | | HM4 | | | |
| 03/10/2023 | Tuesday | | | | | | | | |
| 04/10/2023 | Wednesday | | | Complex numbers (part 2) | Modulus and argument | | Matrices | Inverse of 2×2 and 3×3 matrices | |
| 05/10/2023 | Thursday | | | | | | | | |
| 06/10/2023 | Friday | | | | | | | | |
| 09/10/2023 | Monday | B | | | | | | | HM5 |
| 10/10/2023 | Tuesday | | | | | | | | |
| 11/10/2023 | Wednesday | | | Complex numbers (part 2) | Loci | | Matrices | Simultaneous equations | |
| 12/10/2023 | Thursday | | | | | | | | |
| 13/10/2023 | Friday | | | | | | | | |
| 16/10/2023 | Monday | A | | | | HM6 | | | |
| 17/10/2023 | Tuesday | | | | | Review exercise | | | |
| 18/10/2023 | Wednesday | | | Complex numbers (part 2) | Loci | Unit Test | Matrices | Simultaneous equations | |
| 19/10/2023 | Thursday | | | | | | | | |
| 20/10/2023 | Friday | | | | | | | | |
| | | | | Half Term | | | | | |

| Date | Day | A/B | | Topic | Detail | | Topic | Detail | |
|---|---|---|---|---|---|---|---|---|---|
| 06/11/2024 | Monday | B | | | | | | | HM7 |
| 07/11/2024 | Tuesday | | | | | | Matrices/Linear transformations | Linear transformations | |
| 08/11/2024 | Wednesday | | | Series | Sums of series | | | | |
| 09/11/2024 | Thursday | | | | | | | | |
| 10/11/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 13/11/2023 | Monday | A | | | | HM8 | | | |
| 14/11/2023 | Tuesday | | | | | | Matrices/Linear transformations | Linear transformations | |
| 15/11/2023 | Wednesday | | | Series | Sums of series | | | | |
| 16/11/2023 | Thursday | | | | | | | | |
| 17/11/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 20/11/2023 | Monday | B | | | | **Review exercise** | | | HM9 |
| 21/11/2023 | Tuesday | | | | | **Unit Test** | Matrices/Linear transformations | Linear transformations | **Review exercise** |
| 22/11/2023 | Wednesday | | | Series | Sums of series | | | | **Unit Test** |
| 23/11/2023 | Thursday | | | | | | | | |
| 24/11/2023 | Friday | | | **Staff Training Day** | | | | | |
| | | | | | | | | | |
| 27/11/2023 | Monday | A | | | Momentum and impulse; impulse-momentum principle; conservation of momentum applied to collisions; jerking string problems | HM10 | | | |
| 28/11/2023 | Tuesday | | | Momentum and impulse | | | Algebra and functions | Roots of polynomial equations | |
| 29/11/2023 | Wednesday | | | | | | | | |
| 30/11/2023 | Thursday | | | | | | | | |
| 01/12/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 04/12/2023 | Monday | B | | | Momentum as a vector (i, j problems) Impulse-momentum principle in vector form | **Review exercise** | | | HM11 |
| 05/12/2023 | Tuesday | | | Momentum and impulse | | **Unit Test** | Algebra and functions | Roots of polynomial equations | |
| 06/12/2023 | Wednesday | | | | | | | | |
| 07/12/2023 | Thursday | | | | | | | | |
| 08/12/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 11/12/2023 | Monday | A | | | Work, kinetic energy; derivation of units and formulae | HM12 | | | |
| 12/12/2023 | Tuesday | | | Work, energy and power | | | Algebra and functions | Formation of polynomial equations | |
| 13/12/2023 | Wednesday | | | | | | | | |
| 14/12/2023 | Thursday | | | | | | | | |
| 15/12/2023 | Friday | | | | | | | | |
| | | | | | | | | | |
| 18/12/2023 | Monday | B | | | Work, kinetic energy; derivation of units and formulae | | | | HM13 |
| 19/12/2023 | Tuesday | | | Work, energy and power | | | Algebra and functions | Formation of polynomial equations | **Review exercise** |
| 20/12/2023 | Wednesday | | | | | | | | **Unit Test** |
| | | | | | | | | | |
| | | | | **Christmas Holiday** | | | | | |
| | | | | | | | | | |
| 03/01/2024 | Wednesday | A | | **Staff Training Day** | | | | | |
| 04/01/2024 | Thursday | | | Work, energy and power | Potential energy, work-energy principle, conservation of mechanical | HM14 | Proof | Proof by mathematical induction | |
| 05/01/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 08/01/2024 | Monday | B | | | Potential energy, work-energy principle, conservation of mechanical energy, problem solving | | | | HM15 |
| 09/01/2024 | Tuesday | | | Work, energy and power | | | Proof | Proof by mathematical induction | |
| 10/01/2024 | Wednesday | | | | | | | | |
| 11/01/2024 | Thursday | | | | | | | | |
| 12/01/2024 | Friday | | | | | | | | |

| Date | Day | Set | | Topic | Subtopic | Homework/Notes | Topic | Subtopic | Homework/Notes |
|---|---|---|---|---|---|---|---|---|---|
| 15/01/2024 | Monday | A | | | | HM16 | | | **Review exercise** |
| 16/01/2024 | Tuesday | | | | | | | | **Unit Test** |
| 17/01/2024 | Wednesday | | | Work, energy and power | Power; derivation of units and formula | | Proof | Proof by mathematical induction | |
| 18/01/2024 | Thursday | | | | | | | | |
| 19/01/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 22/01/2024 | Monday | B | | | | **Review exercise** | | | HM17 |
| 23/01/2024 | Tuesday | | | | | **Unit Test** | | | |
| 24/01/2024 | Wednesday | | | Work, energy and power | Power; derivation of units and formula | | Calculus | Volumes of revolution | |
| 25/01/2024 | Thursday | | | | | | | | |
| 26/01/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 29/01/2024 | Monday | A | | | | HM18 | | | |
| 30/01/2024 | Tuesday | | | | | | | | |
| 31/01/2024 | Wednesday | | | Vectors | Vector and Cartesian equations of a line and a plane | | Calculus | Volumes of revolution | |
| 01/02/2024 | Thursday | | | | | | | | |
| 02/02/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 05/02/2024 | Monday | B | | | | | | | HM19 |
| 06/02/2024 | Tuesday | | | | | | | | **Review exercise** |
| 07/02/2024 | Wednesday | | | Vectors | Vector and Cartesian equations of a line and a plane | | Calculus | Volumes of revolution | **Unit Test** |
| 08/02/2024 | Thursday | | | | | | | | |
| 09/02/2024 | Friday | | | | | | | | |
| | | | | | | | | | |

<div align="center">**Half Term**</div>

| Date | Day | Set | | Topic | Subtopic | Homework/Notes | Topic | Subtopic | Homework/Notes |
|---|---|---|---|---|---|---|---|---|---|
| 12/02/2024 | Monday | A | | | | HM20 | | | |
| 13/02/2024 | Tuesday | | | | | | | | |
| 14/02/2024 | Wednesday | | | Vectors | Scalar product | | Elastic collisions in one dimension | Direct impact of elastic spheres. Newton's law of restitution. Loss of kinetic energy due to impact | |
| 15/02/2024 | Thursday | | | | | | | | |
| 16/02/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 26/02/2024 | Monday | B | | | | | | | HM21 |
| 27/02/2024 | Tuesday | | | | | | | | |
| 28/02/2024 | Wednesday | | | Vectors | Scalar product | | Elastic collisions in one dimension | Direct impact of elastic spheres. Newton's law of restitution. Loss of kinetic energy due to impact | |
| 29/02/2024 | Thursday | | | | | | | | |
| 01/03/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 04/03/2024 | Monday | A | | | | HM22 | | | |
| 05/03/2024 | Tuesday | | | | | | | | |
| 06/03/2024 | Wednesday | | | Vectors | Problems involving points, lines and planes | | Elastic collisions in one dimension | Direct impact of elastic spheres. Newton's law of restitution. Loss of kinetic energy due to impact | |
| 07/03/2024 | Thursday | | | | | | | | |
| 08/03/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 11/03/2024 | Monday | B | | | | **Review exercise** | | | HM23 |
| 12/03/2024 | Tuesday | | | | | **Unit Test** | | | |
| 13/03/2024 | Wednesday | | | Vectors | Problems involving points, lines and planes | | Elastic collisions in one dimension | Problem solving (including 'successive' impacts) | |
| 14/03/2024 | Thursday | | | | | | | | |
| 15/03/2024 | Friday | | | | | | | | |

| Date | Day | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 18/03/2024 | Monday | A | | Elastic strings and springs and elastic energy | Hooke's law and definition of modulus of elasticity. Derivation of elastic potential energy formula. | HM24 | Elastic collisions in one dimension | Problem solving (including 'successive' impacts) | |
| 19/03/2024 | Tuesday | | | | | | | | |
| 20/03/2024 | Wednesday | | | | | | | | |
| 21/03/2024 | Thursday | | | | | | | | |
| 22/03/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 25/03/2024 | Monday | B | | Elastic strings and springs and elastic energy | Hooke's law and definition of modulus of elasticity. Derivation of elastic potential energy formula. | | Elastic collisions in one dimension | Problem solving (including 'successive' impacts) | HM25 |
| 26/03/2024 | Tuesday | | | | | | | | |
| 27/03/2024 | Wednesday | | | | | | | | |
| 28/03/2024 | Thursday | | | | | | | | |
| | | | | | | | | | |
| | | | | Easter Holiday | | | | | |
| | | | | | | | | | |
| 15/04/2024 | Monday | A | | Staff Training Day | | | | | |
| 16/04/2024 | Tuesday | | | Year 12 Mock Examinations | | | | | |
| 17/04/2024 | Wednesday | | | | | | | | |
| 18/04/2024 | Thursday | | | | | | | | |
| 19/04/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 22/04/2024 | Monday | B | | Elastic strings and springs and elastic energy | Hooke's law and definition of modulus of elasticity. Derivation of elastic potential energy formula. | HM26 | Elastic collisions in two dimensions | Oblique impact of a smooth sphere with a fixed surface Successive oblique impacts of a sphere with smooth plane surfaces | |
| 23/04/2024 | Tuesday | | | | | | | | |
| 24/04/2024 | Wednesday | | | | | | | | |
| 25/04/2024 | Thursday | | | | | | | | |
| 26/04/2024 | Friday | | | | | | | | |
| 29/04/2024 | Monday | A | | Elastic strings and springs and elastic energy | Hooke's law and definition of modulus of elasticity. Derivation of elastic potential energy formula. | | Elastic collisions in two dimensions | Oblique impact of a smooth sphere with a fixed surface Successive oblique impacts of a sphere with smooth plane surfaces | HM27 |
| 30/04/2024 | Tuesday | | | | | | | | |
| 01/05/2024 | Wednesday | | | | | | | | |
| 02/05/2024 | Thursday | | | | | | | | |
| 03/05/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 06/05/2024 | Monday | B | | Elastic strings and springs and elastic energy | Hooke's law and definition of modulus of elasticity. Derivation of elastic potential energy formula. | HM28 | Elastic collisions in two dimensions | Oblique impact of a smooth sphere with a fixed surface Successive oblique impacts of a sphere with smooth plane surfaces | Review exercise |
| 07/05/2024 | Tuesday | | | | | | | | Unit Test |
| 08/05/2024 | Wednesday | | | | | | | | |
| 09/05/2024 | Thursday | | | | | | | | |
| 10/05/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 13/05/2024 | Monday | A | | Elastic strings and springs and elastic energy | Problem solving: equilibrium and using the work-energy principle | | Motion in a circle (part 1) | Angular speed, central force, radial acceleration | HM29 |
| 14/05/2024 | Tuesday | | | | | | | | |
| 15/05/2024 | Wednesday | | | | | | | | |
| 16/05/2024 | Thursday | | | | | | | | |
| 17/05/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 20/05/2024 | Monday | B | | Elastic strings and springs and elastic energy | Problem solving: equilibrium and using the work-energy principle | HM30 Review exercise Unit Test | Motion in a circle (part 1) | Angular speed, central force, radial acceleration | |
| 21/05/2024 | Tuesday | | | | | | | | |
| 22/05/2024 | Wednesday | | | | | | | | |
| 23/05/2024 | Thursday | | | | | | | | |
| 24/05/2024 | Friday | | | | | | | | |

| | | | | Half Term | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| 03/06/2024 | Monday | A | | Elastic strings and springs and elastic energy | Problem solving: equilibrium and using the work-energy principle | | Motion in a circle (part 1) | Uniform motion in a horizontal circle | HM31 |
| 04/06/2024 | Tuesday | | | | | | | | |
| 05/06/2024 | Wednesday | | | | | | | | |
| 06/06/2024 | Thursday | | | | | | | | |
| 07/06/2024 | Friday | | | | | | | | |
| | | | | | | | | | |
| 10/06/2024 | Monday | B | | Centres of mass of plane figures | Moments; centre of mass of a discrete distribution (1 and 2 dimensions); framework and uniform lamina (rectilinear shapes) | HM32 | Motion in a circle (part 1) | Uniform motion in a horizontal circle | |
| 11/06/2024 | Tuesday | | | | | | | | |
| 12/06/2024 | Wednesday | | | | | | | | |
| 13/06/2024 | Thursday | | | | | | | | |
| 14/06/2024 | Friday | | | | | | | | |
| 17/06/2024 | Monday | A | | Centres of mass of plane figures | Moments; centre of mass of a discrete distribution (1 and 2 dimensions); framework and uniform lamina (rectilinear shapes) | | Motion in a circle (part 1) | Uniform motion in a horizontal circle | HM33 |
| 18/06/2024 | Tuesday | | | | | | | | |
| 19/06/2024 | Wednesday | | | | | | | | |
| 20/06/2024 | Thursday | | | | | | | | |
| 21/06/2024 | Friday | | | | | | | | |
| 24/06/2024 | Monday | B | | Centres of mass of plane figures | Centres of mass of plane figures | HM34 | Motion in a circle (part 2) | Understand that a particle moving in a horizontal circle with constant speed has an acceleration of magnitude $r\omega^2$ directed towards the centre of the circle; | |
| 25/06/2024 | Tuesday | | | | | | | | |
| 26/06/2024 | Wednesday | | | | | | | | |
| 27/06/2024 | Thursday | | | | | | | | |
| 28/06/2024 | Friday | | | | | | | | |
| 01/07/2024 | Monday | A | | Centres of mass of plane figures | Variable force; Calculus to determine rates of change for kinematics | | Motion in a circle (part 2) | Understand that a particle moving in a horizontal circle with constant speed has an acceleration of magnitude $r\omega^2$ directed towards the centre of the circle; | HM35 |
| 02/07/2024 | Tuesday | | | | | | | | |
| 03/07/2024 | Wednesday | | | | | | | | |
| 04/07/2024 | Thursday | | | | | | | | |
| 05/07/2024 | Friday | | | | | | | | |
| 08/07/2024 | Monday | B | | Centres of mass of plane figures | Further centres of mass | HM36 | Motion in a circle (part 2) | Motion in a vertical circle: radial and tangential acceleration; Conservation of energy in this context | |
| 09/07/2024 | Tuesday | | | | | | | | |
| 10/07/2024 | Wednesday | | | | | | | | |
| 11/07/2024 | Thursday | | | | | | | | |
| 12/07/2024 | Friday | | | | | | | | |
| 15/07/2024 | Monday | A | | Centres of mass of plane figures | Further centres of mass | **Review exercise** **Unit Test** | Motion in a circle (part 2) | Motion in a vertical circle: radial and tangential acceleration; Conservation of energy in this context | **Review exercise** **Unit Test** |
| 16/07/2024 | Tuesday | | | | | | | | |
| 17/07/2024 | Wednesday | | | | | | | | |
| 18/07/2024 | Thursday | | | | | | | | |
| 19/07/2024 | Friday | | | | Staff Training Day | | | | | |

# YEAR 13 TOPICS (AQA)

| TEACHING WEEK | SCHOOL WEEK | WEEK COMMENCING | TEACHER 1 | | TEACHER 2 | | Teaching hours | HOMEWORK | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | A | 04 September 2023 | Chapter 12 – Algebra 2 & Chapter 14 – Trigonometric identities | 12.1 Further mathematical proof | Chapter 13 – Sequences | 13.1 The binomial series | 1 2 3 4 | Dr Frost | AUTUMN TERM 1 |
| 2 | B | 11 September 2023 | | 12.2 Functions | | 13.1 The binomial series | 5 6 7 | Dr Frost | |
| 3 | A | 18 September 2023 | | 12.2 Functions | | 13.2 Introduction to Sequence | 1 2 3 4 | Dr Frost | |
| 4 | B | 25 September 2023 | | 12.3 Paramateric equations | | 13.3 Arithmetic sequences | 5 6 7 | Dr Frost | |
| 5 | A | 02 October 2023 | | 12.3 Algebraic fractions | | 13.3 Arithmetic sequences | 1 2 3 4 | Dr Frost | |
| 6 | B | 09 October 2023 | | 12.5 Partial frcations 14.1 Radians | | 13.4 Geometric sequences | 5 6 7 | Dr Frost | |
| 7 | A | 16 October 2023 | | 14.2 Reciprocal and inverse trigonometric functions | | 13.4 Geometric sequences | 1 2 3 4 | Dr Frost | |

**Half term: Monday 23 October - Friday 29 October 2023**

| TEACHING WEEK | SCHOOL WEEK | WEEK COMMENCING | TEACHER 1 | | TEACHER 2 | | Teaching hours | HOMEWORK | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | B | 30 October 2023 | Chapter 14 – Trigonometric identities & Chapter 16 – Integration and differential equations | 14.2 Reciprocal and inverse trigonometric functions | Chapter 15 – Differentiation 2 | 15.2 Exponential and logarithmic functions | 1 2 3 4 | Dr Frost | AUTUMN TERM 2 |
| 9 | A | 06 November 2023 | | 14.3 Compound angles | | 15.3. The product and quotient rule | 4 5 6 | Dr Frost | |
| 10 | B | 13 November 2023 | | 14.3 Compound angles | | 15.3. The product and quotient rule | 1 2 3 4 | Dr Frost Dr Frost | |
| 11 | A | 20 November 2023 | | 14.4Equivalent forms for acos θ + bsin θ | | 15.5 The Chain rule | 5 6 7 | Dr Frost | |
| 12 | B | 27 November 2023 | | 14.5 Equivalent forms for acos θ + bsin θ | | 15.6 The inverse functions | 1 2 3 4 | Dr Frost | |
| 13 | A | 04 December 2023 | | 16.1 Standard integrals | | 5.7 Implicit differentiation | 5 6 7 | Dr Frost | |
| 14 | B | 11 December 2023 | | 16.2 Integration by substitution | | 15.8 Parametric functions | 1 2 3 4 | Dr Frost | |

**CHRISTMAS HOLIDAYS [ WC 20/12/23 TO WC 26/12/23] +bank holiday and training day (start back 4/01/24)**

| TEACHING WEEK | SCHOOL WEEK | WEEK COMMENCING | TEACHER 1 | | TEACHER 2 | | Teaching hours | HOMEWORK | |
|---|---|---|---|---|---|---|---|---|---|
| 15 | A | 01 January 2024 | Chapter 16 – Integration and differential equations & Chapter 20 – Probability and continuous random variables | 16.3 Integration by parts | Chapter 17 – Numerical methods & Chapter 18 – Motion in two dimensions | 17.1 Simple root finding | 1 2 3 4 | Dr Frost | SPRING TERM 1 |
| 16 | B | 08 January 2024 | | 16.4 Integration using partial fractions | | 17.2 Iterative root finding | 5 6 7 | Dr Frost | |
| 17 | A | 15 January 2024 | | 16.5 Differential equations | | 17.3 Newton-Raphson root finding | 1 2 3 4 | Dr Frost | |
| 18 | B | 22 January 2024 | | 20.1 Conditional probability | | 17.4 Numerical integration | 5 6 7 | Dr Frost | |
| 19 | A | 29 January 2024 | | 20.1 Conditional probability | | 18.1 Two-dimensional motion with constant acceleration | 1 2 3 4 | Dr Frost | |
| 20 | B | 05 February 2024 | | 20.2 Modelling with probability | | 18.2 Two-dimensional motion with variable acceleration | 5 6 7 | Dr Frost | |

**Half term: Monday 12 February - Friday 16 February 2024**

| TEACHING WEEK | SCHOOL WEEK | WEEK COMMENCING | TEACHER 1 | | TEACHER 2 | | Teaching hours | HOMEWORK | |
|---|---|---|---|---|---|---|---|---|---|
| 21 | A | 19 February 2024 | Chapter 20 – Probability and continuous random variables & Chapter 21 – Hypothesis testing 2 | 20.3 Normal distribution | Chapter 18 – Motion in two dimensions | 18.3 Motion under gravity | 1 2 3 4 | Dr Frost | SPRING TERM 2 |
| 22 | B | 26 February 2024 | | 20.4 Using the Normal distribution as an approximation to the binomial | | 18.4 Motion under forces | 5 6 7 | Dr Frost | |
| 23 | A | 04 March 2024 | | 20.4 Using the Normal distribution as an approximation to the binomial | | 19.1 Vectors in 3D | 1 2 3 4 | Dr Frost | |
| 24 | B | 11 March 2024 | | 21.1 Testing correlation | | 19.2 Statics | 5 6 7 | Dr fRost | |
| 25 | A | 18 March 2024 | | 21.2 Testing a Normal distribution | | 19.3 Dynamics 2 | 1 2 3 4 | Dr Frost | |
| 26 | B | 25 March 2024 | | | | 19.4 Moments | 5 6 7 | Dr Frost | |

**EASTER HOLIDAYS- [WC 29/03/2024 TO WC 12/04/2024]**

| 26 | A | 15 April 2024 | | Consolidation and Revision | | Consolidation and Revision | 1<br>2<br>3<br>4 | Dr Frost | |
|---|---|---|---|---|---|---|---|---|---|
| 27 | B | 22 April 2024 | | Consolidation and Revision | Chapter 19 – Forces | Consolidation and Revision | 5<br>6<br>7 | Dr Frost | |
| 28 | A | 29 April 2024 | | Consolidation and Revision | | Consolidation and Revision | 1<br>2<br>3<br>4 | Dr Frost | |
| 29 | B | 06 May 2024 | | Consolidation and Revision | | Consolidation and Revision | 5<br>6<br>7 | Dr Frost | |
| 30 | A | 13 May 2024 | | Consolidation and Revision | | Consolidation and Revision | 1<br>2<br>3<br>4 | Dr Frost | |
| 31 | B | 20 May 2024 | | Consolidation and Revision | | Consolidation and Revision | 5<br>6<br>7 | Dr Frost | |
| Half term: Monday 27 May - Friday 31 May 2024 | | | | | | | | | |

SUMMER TERM 1