



CHORLTON HIGH SCHOOL: CURRICULUM

CHS Curriculum Intent

SUCCESSFUL: Learners who gain deep and powerful knowledge in preparation for life; combining academic rigour, curiosity and creative flair.

CREATIVE: Learners who are imaginative, optimistic and inventive; finding their voice to become effective communicators prepared for lifelong adaptability

HAPPY: Learners who are confident, resilient, well-rounded citizens; they understand the world's communities and are ready to discover their place in it.

CHS Curriculum Area Framework for Learning – Year 9

| | |
|----------------|---|
| SUBJECT | Maths |
| INTENT | Maths is a universal language that explains the world around us. The study of Mathematics enables you to make sense of everyday situations, forge links between topics and establish connections to real life context. Maths fosters curiosity, equipping students with various strategies to tackle problems; it empowers students with resilience to take risks, get it wrong, form a new strategy and start again, with determination and drive to reach the final answer. Maths is logical thinking, reasoning, intuition, analysis, construction, generalisation and beauty. |

| | | | | | | |
|---------------------------------|---|---|---|-----------------------------|-----------------------------|---------------------------|
| Year Group | 9 | | | | | |
| Rationale/ Narrative | Year 9 is the final year of KS3 where students will consolidate and extend their existing skills gained in Years 7 and 8 with a blend of formal methods complementing the mastery approach to problem solving and reasoning. Students will work on a range of new topics, applying their skills to complex situations and promoting their communication and strategising throughout. Students will become familiar with the formal assessment process and expectations. | | | | | |
| | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| KNOWLEDGE | <u>Calculations</u> • Place Value | <u>Percentages</u> • Percentage Change | <u>Angles in Polygons</u> • (cont'd) | <u>Probability (cont'd)</u> | <u>Measure and Accuracy</u> | <u>Sequences (cont'd)</u> |



CHORLTON HIGH SCHOOL: CURRICULUM

| | | | | | | |
|--|--|--|--|---|--|--|
| | <ul style="list-style-type: none"> • Rounding • Error Intervals • Adding and Subtracting • Multiplying and Dividing • Roots and indices • Surds • Standard form <p><u>Expressions</u></p> <ul style="list-style-type: none"> • Simplifying Expressions • Indices • Expanding and Factorising • Algebraic Fractions* <p><u>Handling Data</u></p> <ul style="list-style-type: none"> • Sampling • Organising data • Representing Data • Averages and Spread <p>Fractions, decimals and percentages</p> <ul style="list-style-type: none"> • Decimals and Fractions • Fractions and Percentages • Calculations with Fractions | <ul style="list-style-type: none"> • Percentages Increase/Decrease • Compound Interest • Reverse Percentages <p><u>Equations and Inequalities</u></p> <ul style="list-style-type: none"> • Solving Linear Equations • Solving quadratics by factorizing • Solving inequalities • Simultaneous equations <p><u>Angles in Polygons</u></p> <ul style="list-style-type: none"> • Calculating missing angles: <ul style="list-style-type: none"> -around a point -in a straight line -in a triangle -in a quadrilateral -in parallel lines • Coordinates • Congruence • Similarity • Angle sum in polygons | <p><u>Linear graphs</u></p> <ul style="list-style-type: none"> • Working with coordinates • Rearranging equations • Plotting linear graphs • Finding the gradient • Applying $y = mx + c$ • Finding the equation of a line given two points <p><u>Working in 2D</u></p> <ul style="list-style-type: none"> • Measuring Lengths and Angles • Area of 2D Shapes • Transformations 1 • Transformations 2 <p><u>Probability</u></p> <ul style="list-style-type: none"> • Probability Experiments • Expected outcomes • Theoretical Probability • Mutually Exclusive Events • | <p><u>Formulae and Functions</u></p> <ul style="list-style-type: none"> • Substituting into Formulae • Using Standard Formulae • Equations, Identities and Functions <p><u>Pythagoras & Intro to Trigonometry</u></p> <ul style="list-style-type: none"> • Pythagoras – finding missing lengths • Problem solving with Pythagoras • Introduction to trig – finding a missing angle • Trig – finding a missing side | <ul style="list-style-type: none"> • Estimation and Approximation • Calculator Methods • Bounds <p><u>Circles</u></p> <ul style="list-style-type: none"> • Circumference • Area • Arc length and sector area <p><u>Working with 3D shapes</u></p> <ul style="list-style-type: none"> • 3D shapes • Volume of a prism • Volume and surface area of prisms and spheres <p><u>Sequences</u></p> <ul style="list-style-type: none"> • Sequence Rules • Nth term • Special Sequences • Quadratic Sequences | <p><u>Combined Events (Probability)</u></p> <ul style="list-style-type: none"> • Sets • Possibility Spaces • Tree Diagrams <p>Flexi – prep for Yr 10 GCSE</p> |
|--|--|--|--|---|--|--|



CHORLTON HIGH SCHOOL: CURRICULUM

| | | | | | | |
|--------------------|--|---|--|--|--|--|
| | <ul style="list-style-type: none"> Fractions, Decimals and Percentages | | | | | |
| SKILLS | Addition Subtraction Multiplication Division Percentage multipliers Mental Methods Solving multistep word problems Pattern recognition Trends and relationships Use of mathematical equipment Estimation Rounding Ability to mathematically reason | Addition Subtraction Multiplication Division FDP Mental Methods Solving multistep word problems | Simplifying Substitution Reading from axes Drawing and labelling axes Use of mathematical equipment Multiplication Division Ability to mathematically reason Use of mathematical equipment Use of language in probability | Substitution Calculator skills Number skills Ability to answer problem-solving questions Recalling and manipulating formulae | Recalling and manipulating formulae Substitution Ability to spot patterns Ability to answer problem-solving questions Recall of key formulae | Ability to manipulate fractions. Representing data in various formats. Ability to answer problem-solving questions |
| ASSESSMENTS | 1 x Calculations Assessment 1 x Expressions Assessment 1x Handling Data Assessment | 1 x Equations and Inequalities Assessment 1 x Progress test | 1 X Linear Graphs Assessment 1 x Working in 2D Assessment | 1 x Probability Assessment 1 x Progress Test | 1 x Measures & Accuracy 1 x Working in 3D Assessment | 1 x Sequences Assessment 1 x Progress Test 1 x GL Assessment |