- ## Curriculum Overview Template

	Focus	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y10 Higher Maths	Topics/key concepts and ideas	Accuracy Sequences Prisms and Units Simultaneous equations Fractions	Transformations Algebra Graphs Higher silver to start here Percentages	Kinematic graphs Probability trees Coordinates Solving inequalities	Enlargement Cumulative frequency Simplify algebra Standard form	Estimation Quadratics 1 Similarity Transformations 2 Solving quadratics	Y=mx + c Circle theorems Linear equations Area and volume scale factors
	Key skills	Accuracy- Error, truncation. Sequences- Find the next term of a quadratic sequence and explore their properties. Prisms and Units- Surface area and volume of a range of solids. Convert between unit in area and volume. Simultaneous equations- Set up and solve graphically and by elimination (linear only). Fractions- Use the 4 operations with mixed and improper fractions.	Transformations- Rotation Reflection, Translation and Enlargement. Combined transformations. Algebra- Expand brackets of 2 linear expressions. Factorise and solve quadratic expressions including the difference of two squares. Argue mathematically to show equivalence Graphs- Sketch, interpret and identify graphs of linear, quadratic, cubic and reciprocal functions. Higher silver to start here Percentages – Using multipliers to increase/decrease. Reverse percentages. Repeated percentage change.	Kinematic graphs – Sketch real life graphs. Calculate or estimate gradients and areas under graphs inc. quadratic Probability tree diagrams – Draw tree diagrams. Calculate independent probabilities. Use set notation with Venn diagrams. Coordinates – Calculate midpoints. Use Pythagoras on a coordinate grid. Solve problems with coordinates. Inequalities – Plotting them on graphs and shading regions, inc. multiple regions.	Enlargement – Construct enlargements with positive, negative, and fractional scale factors. Find centre of enlargements. Cumulative frequency – Construct, interpret and compare cumulative frequency diagrams and box plots. Simplify algebra – Factorise expressions and simplify algebraic fractions by cancelling common factors. Standard form – Express numbers and calculate with number in ordinary and standard form.	Estimation – estimate answers to calculations. Check solutions by checking order of magnitude. Quadratics – Expand and factorise quadratic expressions, inc. difference of 2 squares. Similarity – Understand the term 'similar' and apply it to triangles and other plane shapes. Use scale factors (inc. non integer). Transformations 2 – Describe single and combined transformations. Solving quadratics – Factorising and solving equations where the coefficient of x^2 is not 1.	Y=mx + c – Understand and use the form y = mx + c. Calculate gradients from lines, coordinates and understand parallel and perpendicular gradients. Circle theorems - Identify, use and solve problems with the key circle theorems. Linear equations – Forming and solving equations including brackets and fractions. Area and volume scale factor – Understand the effect of enlargement on the area and volume of shapes.
	Key terms/vocab	Error, Truncation, Quadratic sequence, Surface Area, Volume, Sphere, Cylinder, Pyramid, Cone, Cuboid, Elimination, Simultaneous, Mixed, Improper, Denominator, Numerator	Rotation, Reflection, Translation, Enlargement, Vector, Scale factor, Factorise, Linear, Expand, Quadratic Reciprocal, Cubic, Root, Turning point, Intercept	Multiplier, Kinematic, Gradient, Acceleration, Speed, Tangent, Probability, Independent, Axis, Coordinate, Area, Distance	Inequality, Region, Enlargement, Scale factor, Transformation, Cumulative, Frequency, Distribution, Range, Quartile, Median, Interquartile range	Expand, Factor, Factorise, Denominator, Numerator, Standard form, Power, Estimate, Significant figure, Quadratic	Tangent, Segment, Diameter, Chord, Gradient, Parallel, Perpendicular, Reciprocal, Integer, Similar
	Independent learning / wider reading	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com	For more support and lots of practice questions go to www.corbettmaths.com
	Assessment	Problem solving task	Autumn assessment	Problem solving task 13	Spring assessment	Problem solving task 12	PS task 14 and Mock
	Careers links	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist

Focus	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic/key concepts and ideas	Calculating with fractions Formulae Lines and angles Probability	Fractions and percentages Brackets Constructions Averages from grouped data Percentage increase and decrease	Linear equations Circles Surveys Calculating with decimals Linear graphs Perimeter and area	Two way table Ratio Plans and elevations Using a calculator Transformations	Enlargement Fractions, Decimals, Percentages Probability	Linear functions Angles in polygons Real life graphs Indices
Key skills	Calculating with fractions- all 4 operations. Formulae- Use and generate simple formulae. Substitution. Lines and angles- Understand and use the angle properties of parallel and intersecting lines. Probability- Mutually exclusive events.	Fractions and percentages- Express one quantity as a fraction/percentage of another. Brackets- Expand and factorise simple expressions. Constructions- Construct triangles, polygons and nets. Averages from grouped data- Calculate mode from grouped data, mean from tabulated data and compare distributions. Percentage increase and decrease- Using multipliers.	Linear equations- Set up and solve linear equations with integer coefficients (including unknowns on both sides and with brackets). Circles- Name parts of a circle. Find area/circumference of circles (and sectors/arcs). Surveys- Design and criticise questions. Know limitations of sampling, exam results of a statistical enquiry. Calculating with decimals- 4 operations with decimals without a calculator. Linear graphs- Use tables to plot linear graphs. Perimeter and area- Calculate the perimeter and area of 2-D shapes. Find the surface area of simple solids.	Two way table- Design and use two way tables for grouped and discrete data. Ratio- Simplifying, writing, solving problems and dividing into a given ratio. Plans and elevations- Drawing and recognising 2-D representations of 3-D shapes. Using a calculator Transformations- Translation, reflection and rotation. Add/subtract vectors. Draw vectors and multiply a vector by a scalar quantity.	Enlargement- Using fractional and integer scale factors. Recognise congruency. Convert between units of area/volume. Fractions, Decimals, Percentages- Know the difference between terminating and recurring decimals. Converting. Find percentage change, simple interest, compound interest and reverse percentages. Probability- Theoretical and experimental probabilities. Tree diagrams.	Linear functions- Plot linear graphs, gradient. Find the equation of a line. Angles in polygons- Use interior/exterior angle rules in polygons. Real life graphs- Inverse and direct proportion. Draw and interpret graphs modelling real life situations. Indices- Use index laws to simplify expression. Use the zero index rule.
Key terms/vocab	Mixed, Improper, Denominator, Numerator, Expression, Substitution, Formulae, Parallel, Intersecting, Alternate, Corresponding, Interior, Vertically opposite, Mutually exclusive, Outcomes,	Factorise, Expand, Polygons, Nets Mode, Mean, Distribution, Multiplier	Coefficient, Circumference, Radius, Diameter, Chord, Tangent, Arc, Segment, Sector,	Bias, Population, Sample Plot, Linear, Perimeter, rea, Surface Area, Discrete, Continuous, Ratio, Plan, Elevation, Translation, Vector, Rotation, Reflection, Scalar	Enlargement, Scale factor, SSS, SAS, ASA, RHS, Congruence, Terminating, Recurring, Simple interest, Compound interest, Reverse percentage, Tree diagrams,	Gradient, y intercept, Exterior, Interior, Direct, Inverse, Index, Indices, Power
Independent learning / wider reading	For more support and lots of practice questions go to www.mymaths.co.uk	For more support and lots of practice questions go to www.mymaths.co.uk	For more support and lots of practice questions go to www.mymaths.co.uk	For more support and lots of practice questions go to www.mymaths.co.uk	For more support and lots of practice questions go to www.mymaths.co.uk	For more support and lots of practice questions go to www.mymaths.co.uk
Assessment	Problem solving task	Autumn test on topics studied so far	Problem solving task	Spring test on topics studied so far	Problem solving task	End of year assessment
Careers links	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist	Finance, Biologist, Chemist, Physicist, Business Analyst, Forecaster, Computer scientist

Year 10 Foundation Maths