HUNTINGTON SCHOOL
MATHEMATICS DEPARTMENT

Mathematics: Mid Term Plan for Year 10 – Foundation

Term 3 Assessment: Between 21/6 – 2/7. This will be a set of mock papers and could include anything they have done previously.

Homework: Weekly homework will be set on a Wednesday, due the following Wednesday via Sparx Maths.

Able and interested: Extension work, and problem-solving task will be provided in lessons where needed.

Support and Extension: Some topics in the table below may not be taught at this current point. This will depend on the attainment of the individuals, and these topics will then be taught at a later date when more appropriate.

Building on: These topics will have been seen before and are needed to progress to the core topics

Core: These topics will be on the assessments

Extension: These topics show where the core topics lead. They may be covered in class if the core topics are secure.

Why this? Why Now? The national curriculum sets out the key maths skills and knowledge that all children in England should learn, and at Huntington School we make sure your child experiences this fully throughout their time with us. Our maths curriculum is planned in a sensible, step-by-step order so that each new topic builds on what pupils already know, helping them grow in confidence and understanding. The table below shows how the learning is sequenced and explains why topics are taught in this order, making it easier for you to see how your child's maths knowledge develops over time.

The Year 10 scheme of learning starts out the same for all students. At this point, Half term 5 and 6, the scheme of learning separates into Higher and foundation. The table below shows the foundation strand.

Half Term	5	6
Knowledge and skills which will be covered during this half term.	**Algebra** Term-to-term rules, Substituting into position-to-term rules, Using algebraic notation, Simplifying expressions by collecting like terms, Finding the highest common factor, Expanding single brackets, Factorising into one bracket. Position-to-term rules for arithmetic sequences, Position-to-term rules for sequences of patterns, Position-to-term rules for geometric sequences, Expanding double brackets, Factorising quadratic expressions of the form x^2+bx+c, Factorising the difference of two squares, Factorising to solve quadratic equations of the form x^2+bx+c=0. Special sequences. **Statistics** Solving direct proportion word problems. Sampling and bias	**Statistics** Interpreting frequency tables and two-way tables, Finding averages from frequency tables, Reading and plotting coordinates, Drawing bar charts, Interpreting bar charts. Interpreting frequency tables with grouped data, Finding averages from grouped data, Drawing stem-and-leaf diagrams, Interpreting stem-and-leaf diagrams, Drawing line graphs, Interpreting line graphs, Drawing and interpreting frequency polygons.

	Ratio & Proportion Solving direct proportion word problems, Solving inverse proportion word problems, Graphs of reciprocal functions. Interpreting direct proportion equations, Interpreting inverse proportion equations, Graphs of direct and inverse proportion. **Geometry** Translation, Reflection, Rotation, Enlargement by a positive scale factor. Combining transformations **Number** Rounding integers, Rounding decimals, Rounding integers using significant figures, Rounding decimals using significant figures, Truncating decimals, Calculating with roots and powers, Simplifying fractions. Finding error intervals, Finding error intervals for truncated numbers, Index rules with positive indices, Index rules with negative indices, Simplifying expressions using index laws. Simplifying expressions using index laws, Simplifying algebraic fractions by cancelling common factors.	**Number** Finding factors and using divisibility tests, Finding prime numbers, Venn diagrams, Simplifying fractions, Ordering fractions, Converting between mixed numbers and improper fractions, Adding and subtracting fractions, Multiplying fractions, Dividing fractions. Finding the lowest common multiple, Finding the highest common factor, Prime factor decomposition, Finding the HCF and LCM using prime factor decomposition, Ordering fractions and mixed numbers, Adding and subtracting mixed numbers, Multiplying with mixed numbers, Dividing with mixed numbers.
Key vocabulary	**Algebra –** Sequence, position, nth term, substitute, arithmetic, geometric, common ratio, ascending, descending, Fibonacci, expressions, like terms, highest common factor, expand, factorise,variable, quadratic, difference of two squares. **Statistics –** Sampling, population, sample, bias, discrete, continuous, qualitative, quantitative, random, representative, reliability, proportion, questionnaire **Ratio & Proportion –** Proportionality, direct, inverse, coefficient, constant, equation, substitute, integer, relationship **Geometry –** Reflection, Translation, Rotation, Enlargement, centre, column vector, co-ordinate, origin, clockwise, anticlockwise, scale factor, resultant, vertices, invariant, combine, transformation **Number –** Error interval, decimal, significant figure, upper bound, lower bound, round, integer, truncate, powers, index, indices, exponent, positive, negative, simplify, evaluate, expression, coefficient, substitute, common factors	**Statistics –** Frequency, grouped, inequalities, mode, modal, mean, median, averages, two - way tables, stem and leaf, maximum, minimum, back to back, compare, greater than, less than, line graph, axis, axes, origin, difference, frequency polygon, scale, estimate **Number –** Divisibility, factors, multiples, lowest common multiples, highest common factor, Venn diagrams, prime factors, product, index form, prime decomposition, shared, repeated, greatest, least, possible. Mixed number, proper, improper, denominator, order, ascending, descending, sum, integer, simplify, cancel, equivalent