Curriculum Overview

Subject: Maths

Year Group: 7

CHASE HIGH
Aspirations, Character & Excellence

Students coming into Year 7 will undertake a test within the first two weeks to accurately assess them and help group them accordingly. They will then follow the scheme of work which is split into 2 schemes of work according to their pathway. Platinum and gold pathway are following the higher scheme of work. Silver and Bronze pathways follow the foundation scheme of work.

TERM 1	TERM 2	TERM 3
KNOWLEDGE/SKILLS Higher: • Number skills • Analysing and displaying data • Equations, functions and formulae • Fraction Foundation: • Number skills • Analysing and displaying data • Equations, functions and formulae • Graphs and sequences	KNOWLEDGE/SKILLS Higher: • Angles and shapes • Decimals • Equations Foundation: • Factors and multiples • Decimals and measures • Angles and lines	KNOWLEDGE/SKILLS Higher: • Multiplicative reasoning • Perimeter, area and volume • Sequences and graphs Foundation: • Measuring and shapes • Fractions, decimals and percentages • Transformations
KEY ASSESSMENTS Half term 1: Base line Assessment Autumn Term 1 Assessment Half term 2: End of Term 1 Assessment	KEY ASSESSMENTS Half term 1: Spring Term 1 Assessment Half term 2: End of Term 2 Assessment	KEY ASSESSMENTS Half term 1: Summer Term 1 Assessment Half term 2: End of Term 3 Assessment
Extended reading suggestions and external resources: Mathswatch - https://vle.mathswatch.co.uk/vle/; Mainly used for exam questions based on specific topics Mathsbot - https://mathsbot.com/; differentiated activities to help build key skills as well as worksheets for consolidation of work. MyMaths - https://login.mymaths.co.uk/login Corbett Maths – https://corbettmaths.com; 5-a-day questions which are good problem solving starter questions for all abilities.		

Maths Year 7 Assessment Criteria

	Bronze	Silver	Gold	Platinum
Number	Multiply and divide whole numbers by powers of 10. **Multiply & divide decimals by powers of 10.** Add and subtract decimals. **Identify square numbers.** Know the definition of and list the first 10 prime numbers. **Know the definition of multiples and factors and to list them.** Round whole numbers and round decimals to integers. **Simplify fractions.** Calculate simple percentages of amounts.	Round decimals. **Multiply & divide decimals by single-digit whole numbers.** Convert between ordinary numbers and numbers in standard form. **Use square roots, cube and cube roots.** Understand and apply BIDMAS. **Write an integer as a product of its prime factors.** Calculate the LCM & HCF using Venn diagrams. **Add and subtract fractions.** Calculate percentage of amounts with and without a calculator.	Calculate the LCM and HCF. **Estimate answers to calculations with the use of rounding numbers.** Round to significant figures. **Multiply and divide numbers that are written in standard form.** Convert between improper and mixed fractions. **Convert between fractions, decimals and percentages.** Compare and order fractions and/or decimals. **Calculate percentage increase and decrease.** Add, subtract, multiply and divide fractions.	Solve word problems involving HCF and LCM. **Multiply & divide integers and decimals by a number between 0-1.** Add & subtract numbers that are in standard form. **Solve problems involving standard form.** Add, subtract, multiply and divide mixed numbers. **Solve word problems with percentage increase and decrease.** Solve reverse and compound percentage problems. **Calculate simple interest.** Calculate compound interest.
Algebra	**Plot coordinates in all four quadrants.** Write and simplify linear expressions. **Multiply single brackets by a positive integer.** Calculate a term-to-term rule and continue a sequence. **Generate sequences from patterns.** Calculate the input and output of function machines (positive integers only).	**Expand and simplify brackets** Factorise linear expressions. **Substitute positive and negative integers into expressions and formulae.** Plot straight line graphs. **Calculate the mid-point of a line.** Generate a sequence from and calculate the nth term.	**Expand double brackets with positives.** Solve linear equations, with negatives and brackets. **Substitute fractional and negative values into expressions.** Plot straight line graphs including negatives. **Calculate the gradient from a straight line.** Problems involving the nth term.	**Expand double brackets with negatives.** Factorise quadratic expressions. **Solve linear equations with unknowns on both sides.** Rearrange formulae and use to solve problems. **Plot straight line graphs without a table of values.** Calculate the gradient from two points.

Ratio and proportion	**Simplify ratios.** Share an amount in a simple ratio. **Convert between metric units of length.** Convert between metric units of mass.	**Convert fractions to a ratio,** Share an amount in a given ratio. **Use ratio to compare scale drawings to real life.** Convert between metric units.	**Write, simplify and divide a ratio given situations.** Compare products to work out best buy. **Solve simple problems involving direct proportion.** Convert between metric units involving area.	**Interpret and solve best buy deals.** Calculate missing dimensions in similar shapes. **Calculate the linear scale factor of similar shapes.** Convert between currencies.
Geometry	**Know the definition of regular and irregular polygon.** Know the names of regular polygons up to decagon. **Name the different angles, acute, obtuse, right-angle and reflex.** Measure and draw angles accurately to the nearest degree. **Understand the definition of parallel and perpendicular lines.** Calculate the area and perimeter of rectangles/squares/triangles. **Draw tessellations.**	**Classify quadrilaterals and triangles given their properties.** Calculate area and perimeter of compound shapes involving rectangles. **Calculate the circumference and area of a circle.** Find missing angles in triangles and quadrilaterals. **Identify and calculate angles on a straight line, around a point and vertically opposite angles;** Reflect, translate and rotate a shape. **Identify properties of 3D shapes.**	**Calculate the volume of a cuboid.** Construct bisectors accurately. **Construct a triangle given sides and angles.** Calculate the area of a trapezium. **Identify congruent shapes.** Identify and calculate angles in parallel lines e.g.: alternate, corresponding & Co-interior. **Enlarge any shape given a positive scale factor.**	**Calculate interior, exterior and the sum of angles in polygons.** Calculate the volume of a prisms including cylinders. **Calculate the surface area of prisms.** Calculate the dimensions given the volume or surface area. **Describe fully a single transformation.** Answer problems involving angles in parallel lines. **Enlarge a shape from a given centre of enlargement.**
Probability and data	Draw and interpret bar charts for discrete data. **Calculate the mode, mean and range from sets of data.** Read and represent information, work out totals from a pictogram. **Draw and interpret line graphs.** Understand and use the probability scale from 0 to 1. **Write probabilities in words or fractions, decimals and percentages.** Draw a pie chart Use a template for the pie charts divided into 10ths.	Construct a pie chart. **Plan and construct two-way tables.** Use a scale from 0-1 to express and compare experimental and theoretical probabilities in a range of contexts. **Calculate the probability of an event happening using theoretical probability.** List all outcomes using dice, spinners and coins. **Plot a scatter graph from data.** Calculate the mode, median, mean and range from sets of data.	Construct and interpret pie charts. **Calculate averages from frequency tables.** Understand that the sum of probabilities of all mutually exclusive outcomes is 1. **Use 1 – p to calculate the probability of an event not occurring.** Calculate a missing probability from a list or two-way table. **Complete Venn diagrams and use union and intersection notation.** Draw and interpret scatter graphs including line of best fit.	Estimate the mean and median from grouped frequency tables. **Display data with an appropriate graph.** Work out probabilities from Venn diagrams. **Understand and use experimental and theoretical probability to calculate estimated outcomes.** Use a two-way table to calculate conditional probability. **Construct and interpret real-life graphs.** Calculate the probability of an event happening using relative frequency.