meadows school

Curriculum Progress Plan year 1 and year 2
MATHS

	Year one			Year two		
	Autumn Term	**Spring Term**	**Summer term**	**Autumn Term**	**Spring Term**	**Summer term**
Topic Titles	Lines, Angles and shapes, Plans and Elevations, Simple scales	Symmetry and Transformations	Probability and Statistics	Number Using Maths in Industry	Integers, Powers and roots, sequences, functions and graphs.	Fractions, Decimals and Percentages Formulae and Functions and measures
Objectives (The things we want the pupils to make progress in)	Types of shapes 2D and 3D types of nagles and perpendicular lines. Angles around a point, on a straight line and in triangles. Alternate corresponding and supplemementary angles. Exterior and interirour angles of polygons. Using a protractor to measure and draw angles accurately. Identify plans, elevations and nets and convert and use simple scales on maps and drawings.	Introduction to Symmetry and reflection. Rotation and rotational symmetry. Translations using vectors. Describing transformations	P1 Use experimenatl data to estimate probabilities and expected frequencies P2 Calculate theoretical probabilities and expected frequencies using the idea of equally likely outcomesP3 Compare theoretical probabilities with experimental probabilities P4 Recognise mutually exclusive events and exhaustive events and know that the probability of mutually exclusive events sum to 1 P6 Use Venn diagrams to record outcomes and calculate probabilities of events; Construct possibility spaces and use these to calculate probabilities; Use tree diagrams to show the frequencies or probabilities of two events Use tree diagrams to calculate the probability of independant and dependant events	Column addition and subtraction standard methods to multiply up to 3 digits and 2 digits divisibility and short division Directed numbers Place value calculate with money Understand how maths is used in a wide range of industry including construction and Hair and Beauty.	Factors, Multiples and Primes HCF and LCM Cubes and Roots Sequences co-ordiantes Linear graphs	S2 Construct and interpret frequency tables and two-way tables; Construct and interpret pictograms, bar line charts and bar charts; Interpret and construct pie charts and know their appropriate use S4 Compare distributions using median, mean mode and range and identify outliers H Calculate inter-quartile range and use in comparison of data sets H Use frequency tables to represent grouped data H Construct Histograms with equal or unequal class widths fractions; Compare decimals and fractions using the symbols > and < N12 Convert between fractions, decimals and percentages

EXTENSION Key Stage 4 (GCSE 7-9)	To demonstrate mastery in: G12 Identify the number of faces, edges and vertices of 3D shapes; Construct and interpret plans and elevations of 3D shapes 14 Accurately draw and measure lines and angles G15 Use standard units for lengths and areas; Use bearings; Interpret maps and scale drawings G16 Know and apply formulae for areas of triangles, parallelograms and trapeziums G7 & G24 Identify, describe and construct reflections, rotations, translations and enlargements	Assuming the objectives for stage 4 have been met extension objectives are:- H Perform exact calculations involving surds H Recognise, sketch and interpret graphs of exponential functions H Recognise, sketch and interpret graphs of trigonometric functions H Recognise, sketch translations and reflections of graphs H Calculate with vectors and use them in geometric proofs H Know or find the exact values of sin and cos for key angles H Use sine and cosine rules to find missing lengths or angles	P1 Use experimenatl data to estimate probabilities and expected frequencies P2 Calculate theoretical probabilities and expected frequencies using the idea of equally likely outcomesP3 Compare theoretical probabilities with experimental probabilities P4 Recognise mutually exclusive events and exhaustive events and know that the probability of mutually exclusive events sum to 1 P6 Use Venn diagrams to record outcomes and calculate probabilities of events; Construct possibility spaces and use these to calculate probabilities; Use tree diagrams to show the frequencies or probabilities of two events Use tree diagrams to calculate the probability of independant and dependant events	To demonstrate a mastery in Column addition and subtraction standard methods to multiply up to 3 digits and 2 digits divisibility and short division Directed numbers Place value calculate with money Understand how maths is used in a wide range of industry including construction and Hair and Beauty.	to demonstrate a mastery in Factors, Multiples and Primes HCF and LCM Cubes and Roots Sequences co-ordiantes Linear graphs	Assuming the objectives for stage 4 have been met extension objectives are:- H Calculate inter-quartile range and use in comparison of data sets H Use frequency tables to represent grouped data H Construct Histograms with equal or unequal class widths H Convert between fractions, recurring decimals, and percentages H Order fractions, decimals and percentages H Rearrange formulae to change the subject H Write an equation to represent a function and find inputs and outputs H Find the inverse of a function and construct and use composite functions H Construct proofs of simple statements using algebra H Expand and factorise quadratics
PLATINUM Key Stage 4 (GCSE 5-6)	To have a secure knowledge of how to independently: G12 Identify the number of faces, edges and vertices of 3D shapes; Construct and interpret plans and elevations of 3D shapes 14 Accurately draw and measure lines and angles G15 Use standard units for lengths and areas; Use bearings; Interpret maps and scale drawings G16 Know and apply formulae for areas of triangles, parallelograms and trapeziums G7 & G24 Identify, describe and construct reflections, rotations, translations and enlargements	To have a secure knowledge of how to independently: Recognise and investigate symmetry. Understand reflection. Rotational symmetry Translations and use vectors. Geometrical transformation single transformation.	P1 Use experimenatl data to estimate probabilities and expected frequencies P2 Calculate theoretical probabilities and expected frequencies using the idea of equally likely outcomesP3 Compare theoretical probabilities with experimental probabilities P4 Recognise mutually exclusive events and exhaustive events and know that the probability of mutually exclusive events sum to 1 P6 Use Venn diagrams to record outcomes and calculate probabilities of events; Construct possibility spaces and use these to calculate probabilities; Use tree diagrams to show the frequencies or probabilities of two events Use tree diagrams to calculate the probability of independant and dependant events	To have a secure knowledge of Column addition and subtraction standard methods to multiply up to 3 digits and 2 digits divisibility and short division Directed numbers Place value calculate with money through independent problem solving methods. Understand how maths is used in a wide range of industry including construction and Hair and Beauty.	to have a secure knowledges of Factors, Multiples and Primes HCF and LCM Cubes and Roots Sequences co-ordiantes Linear graphs	S2 Construct and interpret frequency tables and two-way tables; Construct and interpret pictograms, bar line charts and bar charts; Interpret and construct pie charts and know their appropriate use S4 Compare distributions using median, mean mode and range and identify outliers N10 Convert between terminating decimals and their corresponding fractions; Compare decimals and fractions using the symbols > and < N8 Find fractions and percentages of amounts; Add, subtract, multiplay and divide simple fractions and mixed numbers N12 Convert between fractions, decimals and percentages A2 Substitute numerical values into formulae and expressions A3 Identify inequalities, equations, formulae and identities A4 Expand double brackets; Factorise quadratics of the form x2 + bx+c

Level	Geometry	Symmetry/Transformations	Probability	Number	Factors & Multiples	Statistics
GOLD **Key Stage 4** **(GCSE 3-4)**	to have a secure knowledge of how to : Recognise and desribe 2D and 3D shapes G14 Accurately draw and measure lines and angles G15 Use standard units for lengths and areas; Use bearings; Interpret maps and scale drawings G16 Know and apply formulae for areas of triangles, parallelograms G7 & G24 Identify, describe and construct reflections, rotations, translations and enlargements	to have a secure knowledge of how to: Recognise and investigate symmetry. Understand reflection. Rotational symmetry Translations and use vectors. Geometrical transformation single transformation. Often working independently to achieve this.	P1 Use experimenatl data to estimate probabilities P2 Calculate theoretical probabilities and expected frequencies using the idea of equally likely outcomes P3 Compare theoretical probabilities with experimental probabilities P4 Recognise mutually exclusive events and know that the probability of mutually exclusive events sum to 1 P6 Construct possibility spaces and use these to calculate probabilities;	To demonstrate a secure knowledge of Column addition and subtraction standard methods to multiply up to 3 digits and 2 digits divisibility and short division Directed numbers Place value calculate with money with minimum support. Understand how maths is used in a wide range of industry including construction and Hair and Beauty.	to have a secure knowledges of Factors, Multiples and Primes HCF and LCM Cubes and Roots Sequences co-ordiantes Linear graphs	S2 Construct and interpret frequency tables and two-way tables; Construct and interpret pictograms, bar line charts and bar charts; Interpret and construct pie charts and know their appropriate use S4 Compare distributions using median, mean mode and range A2 Substitute numerical values into formulae and expressions A3 Identify inequalities, equations, formulae and identities A4 Expand double brackets;
Silver **Key Stage 3** **(GCSE 1-2)**	To have a developing understanding of how to: recognise and descibe 2D shapes G14 Accurately draw and measure lines and angles G15 Use standard units for lengths and areas; Interpret maps and scale drawings G16 Know and apply formulae for areas of rectangles and triangles, G7 & G24 Identify, describe and construct reflections, rotations,	to have a developing understanding of how to: Recognise and investigate symmetry. Understand reflection. Rotational symmetry Translations and use vectors. Geometrical transformation single transformation. Sometimes with support.	P1 Use experimental data to estimate probabilities P2 Calculate theoretical probabilities using the idea of equally likely outcomes P4 Recognise mutually exclusive events and know that the probability of mutually exclusive events sum to 1 P6 Construct possibility lists and use these to calculate probabilities;	To have a developing knowledges of Column addition and subtraction standard methods to multiply up to 3 digits and 2 digits divisibility and short division Directed numbers Place value calculate with money With some scaffolded support. Understand how maths is used in a wide range of industry including construction and Hair and Beauty.	To begin to develop a good understanding of Factors, Multiples and Primes HCF and LCM Cubes and Roots Sequences co-ordiantes Linear graphs	S2 Construct and interpret frequency tables and two-way tables; Construct and interpret pictograms, bar line charts and bar charts; S4 Compare distributions using median, mode and range N10 Convert a fraction to a decimal with a calculator N8 Find fractions and percentages of amounts; N12 Convert between decimals and percentages A2 Substitute numerical values into formulae and expressions A3 Identify inequalities, equations, formulae and identities
Bronze **Key Stage 3** **(Entry Level 3)**	To have an emerging understanding of how to: Recognise 2D shapes G14 Accurately draw and measure lines and angles G7 Recognise line and rotational symmetry, G15 Use standard units for lengths and areas; G16 Know and apply formulae for areas and perimeters of rectangles G3 learn the properties of angles at a point, angles at a point on a straight line, vertically opposite angles;	To have an emerging understanding of how to: Recognise and investigate symmetry. Understand reflection. Rotational symmetry Translations and use vectors. Geometrical transformation single transformation	P1 Use experimental data to estimate probabilities P6 List possibilities and use these to calculate probabilities;	to have an emerging knowledge of Column addition and subtraction standard methods to multiply up to 3 digits and 2 digits divisibility and short division Directed numbers Place value calculate with money with scaffolded support. Understand how maths is used in a wide range of industry including construction and Hair and Beauty.	To have an emerging understanding of Factors, Multiples and Primes HCF and LCM Cubes and Roots Sequences co-ordiantes Linear graphs	S2 Construct and interpret frequency tables and two-way tables; Construct and interpret pictograms, bar line charts and bar charts; N10 Convert a fraction to a decimal with a calculator N8 Find fractions of amounts; A2 Substitute numerical values into formulae