

Objective	
Integers, Powers and roots	Know and use the index laws
	Use index notation for positive integer indices
	Find the reciprocal of a number.
	Use index notation for negative integer indices.
	Convert between ordinary and standard index form.
	Calculate with standard index form
Fractions, decimals and percentages	Increase or decrease a quantity by a given percentage (multiplier) Calculator
	Work out reverse percentage problems
	Calculate percentage change
	Use and understand compound interest and depreciation
Data	Draw and interpret pie charts
	Draw and interpret scattergraphs- line of best fit, correlation, interpolation extrapolation
	Draw and interpret a time series graph
	Calculate quartiles and IQR from data in lists
	Calculate averages from a frequency table
	Estimate the mean from a grouped frequency table
Calculations and Accuracy	Round to a given number of significant figures
	Estimate answers to calculations
	Find upper and lower bounds
	Use inequality notation to specify error intervals due to rounding
	Use place value to calculate changes to given calculations
	Use a calculator for complex calculations
Simplifying and substituting	Expand simple single brackets
	Factorise single brackets
	Equate co-efficients in basic identities
	Apply and use the laws of indices using algebraic terms
	Substitute numbers into more complex formulae
	Expand quadratics
	Factorise quadratics of the form $ax^2 + bx + c$ where $a=1$
	Factorise quadratics of the form $ax^2 + bx$
Assessment	Revision Lesson
	Advent Assessment
	Marking Lesson
Ratio	Write ratios as fractions of the whole and fractions of each part
	Divide quantities by simple ratios given the whole, part or difference
	Solve non-standard questions when sharing a ratio given whole, part or difference
	Calculate maximum quantity problems
Pythagoras and similar shapes	Use Pythagoras' Theorem to calculate missing lengths in right angled triangles (basic)
	Use Pythagoras' Theorem to calculate the height in other shapes
	Use Pythagoras' Theorem to calculate the distance between co-ordinates
	Solve problems using Pythagoras' theorem - (put together with above yellow)
Linear Equations	Solve two-step linear equations with brackets
	Solve linear equations with unknowns on both sides

Forming	Solve linear equations with unknowns on both sides including brackets
	Rearrange formula that include brackets, fractions and square roots.
Lines, angles and shapes	Solve problems using alternate, corresponding and co-interior angles
	Use angles facts to solve problems involving triangles
	Know and apply the special properties of squares, rectangles, trapeziums, parallelograms, rhombus,
	Calculate interior and exterior angles in regular polygons
	Recognise tangents, arcs, sectors, segments, radii and diameters in circle
Area	Calculate the area and perimeter of parallelograms
	Calculate the area and perimeter of trapezia
	Calculate the area and perimeter of compound shapes
	Calculate the area and circumference of a circle
	Calculate the area of sectors and lengths of arcs
Assessment	Revision Lesson
	Lent Assessment
	Marking Lesson
Sequences, functions and graphs	Use co-ordinates in all four quadrants
	Plot straight lines of the form $y = 2$ and $x = 3$
	Complete a table of values and draw graphs of the form $y = mx + c$
	Calculate the gradient of a line
	Use $y = mx + c$ to calculate the gradient and intercepts of a line
	Use $y = mx + c$ to identify parallel lines
	Find the equation of a line through two points or one point with a given gradient
Volume	Calculate the volume and surface area of triangular prisms and other prisms
	Calculate the volume and surface areas of cylinders
Probability	Understand and use relative frequency as an estimate of probability
	Understand that samples tend towards theoretical probability with increasing distribution size CAN B
	Complete and use two way tables
	Complete and use frequency trees
	Represent probabilities using Venn diagrams
	Identify regions on a Venn diagram using intersect, union and complement notation
	List outcomes systematically
	Use the product rule for counting
Measures	Understand and use compound measures to calculate speed
	Draw and interpret distance time graphs
	Calculate speed from a distance time graph
Inequalities	Solve linear inequalities with an unknown on one side
	Solve linear inequalities with an unknown on both sides including simple double inequalities
Assessment	Revision Lesson
	Pentecost Assessment
	Marking Lesson
Transformations	Identify line symmetry and rotational symmetry in a 2D shapes
	Reflect shapes in the axes of a graph
	Reflect shapes in lines such as $x = 2$ and $y = -3$
	Reflect objects in the lines $y = x$ and $y = -x$

Transform

Rotate shapes about any point

Translate a shape by a vector

Add and subtract vectors and multiply vectors by a scalar, in both diagrammatic and column form

Enlarge a shape by a positive scale factor (including fractions) from a centre

E INCLUDED IN PREVIOUS LESSON NOT ON OWN