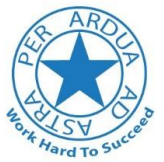


Our Mathematics curriculum aims to ensure all pupils:

- Our Maths curriculum aims to ensure that all pupils:
- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.



	Autumn 1		Autumn 2
Weeks 1-2 Place Value	- To read and write seven-digit numbers - To identify the value of each digit in a seven-digit number - To use the value of the digits to compare and order numbers - To round any whole number to the required degree of accuracy - To perform mental calculations, including with mixed operations and large numbers - To use negative numbers in context, and calculate intervals across zero - To use and apply place value knowledge to solve problems-assessment task - To understand and use Roman numerals	Week 1 - Simplify, compare and order equivalent fractions Week 2 - Addition and subtraction of fractions	- To use common factors to simplify fractions - To use common multiples to express fractions in the same denomination - To generate and describe linear number sequences (with fractions) - To compare and order fractions using the denominator - To compare and order fractions using the numerator To add fractions with different denominations and mixed numbers, using the concept of equivalent fractions To add fractions using part- whole models and bar models To subtract fractions using the concept of equivalent fractions To use addition and subtraction of fractions to solve problems
Weeks 3-4 Addition and Subtraction	- To add a multiple of 10, 100 or 1000, 10 000, 100 000 from a six- or seven-digit number - To add six- seven-digit numbers using the formal written method of columnar addition - To add numbers with up to two decimal places using the formal written method of columnar addition - To practise addition for larger numbers, including both mental and written methods - To subtract a multiple of 10, 100 or 1000, 10 000, 100 000 from an even six- or seven-digit number - To subtract six- seven-digit numbers using the formal written method of columnar subtraction - To subtract numbers with up to two decimal places using the formal written method of columnar subtraction - To practise subtraction for larger numbers, including both mental and written methods	Weeks 3 - Multiplication and division of fractions Week 4 - Fractions of amounts	- To multiply fractions by whole numbers, writing the answer in its simplest form - To multiply fractions by fractions, writing answers in the simplest form - To divide proper fractions by whole numbers - To use four operations with fractions To work out fractions of an amount To find the whole amount from a fraction To solve problems that involve adding, subtracting, multiplying and dividing fractions
Weeks 5-6 Multiplication and division	- To identify common factors and common multiples - To recognise prime and square numbers - To make a reasonable estimate of the answer to a calculation and use this to check the answer - To use a written method to calculate multiplication of $TO \times TO$ - To use a written method to calculate multiplication of $HTO \times TO$ - To use a written method to calculate multiplication of $ThHTO \times O$	Week 5/6 Algebra	- To find a rule using simple formulae- one step function - To find a rule using simple formulae - two step/ linear equations - To form expressions - To substitute and express missing number problems algebraically - To create formulae - To form equations - To solve one step equations - To solve two step equations



	To use the formal written method of short division to calculate $\text{ThHTO} \div 0$, $\text{ThHTO} \div 11$ and $\text{ThHTO} \div 12$ To use factors to solve division calculations To use the formal written method of short division To use and apply knowledge of four operations to solve problems		To find pairs of values – 1 To find pairs of values - 2
Week 7 Prime, square and cube numbers BODMAS	To identify prime numbers To explore the relationship between square and cube numbers To use their knowledge of the order of operations to carry out calculations involving the four operations To use BODMAS to solve problems and end of unit test	Week 7 End of unit/term assessments Tangram investigation	To consolidate understanding of topics this term To complete assessments To investigate Christmas tangrams



	Spring 1		Spring 2
Week 1 Measurement- converting units	To read, write and recognise metric measures of length, mass and capacity To convert between units of length, mass and capacity To calculate with metric measures using conversion skills To calculate and convert between units of time To solve problems with time including calculating average speed To convert between miles and kilometres To understand imperial measure and convert between metric and imperial	Week 1/2 Measurement Area and perimeter	To find and draw shapes that have the same area To be able to calculate the area and perimeter of shapes including compound shapes To address misconceptions of reasoning papers To find the area of a triangle by counting squares To use formula to calculate the area of a right angled triangle To be able to calculate the area of different triangles To calculate the area of parallelograms To count cubes to calculate volume To use formula to calculate the volume of a cuboid
Weeks 2/3 Decimals	To identify the value of each digit in numbers given to 3 decimal places To multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. To divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. To multiply 1 digit numbers with up to 2 decimal places by integers. To divide numbers with up to 2 decimal places by integers. To solve problems which require answers to be rounded to specified degrees of accuracy. To recall and use equivalences between simple fractions and decimals in different contexts. To convert fractions to decimals and vice versa To be able to use division to convert fractions to decimals	Weeks 3/4 Properties of shape 2d and 3d and surface area Angles	To recognise and label the properties of 2d and 3d shape To use knowledge of shapes and measure to draw shapes accurately To recognise 3d shapes from nets To draw nets of 3D shapes To measure with a protractor To recognise and label a range of angles To calculate angles around a point and on a straight line To calculate angles vertically opposite angles To calculate angles in a triangle To explore the interior angles of quadrilaterals To explore the interior angles of regular polygons
		Week 5 Geometry- position and direction	To describe positions on the full coordinate grid (all four quadrants) To draw and translate simple shapes on the coordinate plane To reflect shapes across the axes



Weeks 4/5 Percentages	- To be able to convert fractions to percentages - To be able to convert between fractions, decimals and percentages - To be able to order fractions, decimals and percentages - To solve problems involving the calculation of percentages - To use fractions to find percentages of amounts -1% 10% 25% 50% - To use fractions to find percentages of amounts- compound percentages e.g. 15%, 20% and 35% - To use percentages to find missing value - To understand percentage increase and decrease		
Week 6 Ratio and proportion	- To use correct ratio language - To use the ratio symbol - To recognise ratio as fractions - To calculate ratio - To use scale factors to draw shapes - To calculate scale factors of shapes - To solve ratio and proportion problems		



	Summer 1		Summer 2
Week 1 Statistics Circles/pie charts	To be able to Illustrate and name parts of circles- radius, diameter and circumference and know that the diameter is twice the radius. To be able to read and interpret pie charts To use percentages to understand pie charts To construct pie charts and use them to solve problems	Week 1 Money	To know that money, and ways to pay, have developed in many different forms throughout history e.g. barter, coins, notes etc To understand the history of currency and coinage
Week 2 Statistics	To be able to calculate the mean as an average. To be able to read and interpret line graphs To be able to draw line graphs To be able to interpret and construct line graphs and use them to solve problems.	Week2 Money	To know how to manage a budget To understand gambling and the linked dangers
Weeks 3-5 Mock SATs weeks And SATs week		Week 3-6 Investigations Amusement Park Project	To reason and problem solve using all 4 operations To be able to use the correct mathematical vocabulary for running a business To use and apply money skills to context of amusement park