Pippins Primary School Curriculum Overview 2023 - 2024

Subject: Maths

	Autumn	Spring	Summer
Reception	**Topic:** Match, sort and compare Talk about measure and patterns It's me 1,2,3 Circle and triangles 1,2,3,4,5 Shapes with 4 sides	**Topic:** Alive in 5 Mass and capacity Growing 6,7,8 Length, height and time Building 9 and 10 Explore 3-D shapes	**Topic:** To 20 and beyond How many now? Manipulate, compose and decompose Sharing and grouping Visualise, build and map Make connections
	Skills and Knowledge Match objects and pictures Identify a set Sort objects to a type Explore sorting techniques Create sorting rules Compare amounts Compare size, mass and capacity Explore simple patterns Copy and continue simple patterns Create simple patterns Find 1,2,3 Subitise 1, 2 and 3 Represent 1, 2 and 3 Find 1 more and find 1 less Composition of 1, 2 and 3 Identify and name circles and triangles Compare circles and triangles	**Skills and Knowledge** Introduce zero Find 0 to 5 Subitise 0 to 5 Represent 0 to 5 Find 1 more and find 1 less Composition of 0 to 5 Conceptual subitising to 5 Compare mass Find a balance Explore capacity Compare capacity Find 6, 7 and 8 Represent 6, 7 and 8 Find 1 more and 1 less Composition of 6, 7 and 8 Make pairs-odd and even Double to 8 (find and make a double)	**Skills and Knowledge** Build numbers beyond 10 (10 -13) Continue patterns beyond 10 (10-13) Build numbers beyond 10 (14-20) Continue patterns beyond 10 (14-20) Verbal counting beyond 20 Verbal counting patterns Add more How many did I add? Take away How many did I take away? Select shapes for a purpose Rotate shapes Manipulate shapes Explain shape arrangements Compose shapes Decompose shapes Copy 2-D shape pictures

	Shapes in the environment Describe position Find 4 and 5 Subitise 4 and 5 Represent 4 and 5 Find 1 more and 1 less Composition of 4 and 5 Composition of 1 - 5 Identify and name shapes with 4 sides Combine shapes with 4 sides Shapes in the environment My day and night	Combine 2 groups Explore length Compare length Explore height Compare height Talk about time Order and sequence time Find 9 and 10 Compare numbers to 10 Represent 9 and 10 Conceptual subitising to 10 1 more and 1 less Composition to 10 Bonds to 10 (2 parts) Make arrangements of 10 Bonds to 10 (3 parts) Doubles to 10 (find a double) Doubles to 10 (make a double) Explore even and odd Recognise and name 3-D shapes Find 2-D shapes within 3-D shape Find 3-D shapes in the environment Identify more complex patterns Copy and continue patterns Find patterns in the environment	Find 2-D shapes within 3-D shapes Explore sharing and begin to share Explore grouping and begin to group Even and odd sharing Play with and build doubles Identify units of repeating patterns Create own pattern rules Explore own pattern rules Replicate and build scenes and constructions Visualise from different positions Describe positions Give instructions to build Explore mapping Represent maps with models Create own maps from familiar places Create own maps and plans from story situations Deepen understanding Patterns and relationships

	Autumn	Spring	Summer
Year 1	**Topic:** Number Geometry	**Topic:** Number Measurement	**Topic:** Number, Measurement, Statistics, Geometry
	Concept: Place Value (within 10) Addition and Subtraction (within 10) Shape	**Concept:** Place Value (within 20) Addition and subtraction (within 20) Place Value (within 50) Length and Height Mass and Volume	**Concept:** Multiplication and Division Fractions Position and Direction Place Value (within 100) Money Time
	Skills and Knowledge:	**Skills and Knowledge**	**Skills and Knowledge**
	Sort objects and count objects	Count within 20	Count in 2s, 5s and 10s
	Count objects from a larger group	Understand 10	Recognise equal groups
	Represent objects	Understand 11, 12 and 13	Add equal groups
	Recognise numbers as words	Understand 14, 15 and 16	Make arrays
	Count on from any number	Understand 17, 18 and 19	Make doubles
	Calculate one more	Understand 20	Make equal groups - grouping
	Count backwards within 10	1 more and 1 less	Make equal groups - sharing
	Know 1 less	The number line to 20	Recognise a half of an object or a shape
	Compare groups by matching	Use a number line to 20	Find a half of an object or a shape
	Understand fewer, more, same	Estimate on a number line to 20	Recognise a half of a quantity
	Understand less than, greater than, equal to	Compare numbers to 20	Find a half of a quantity
	Compare numbers	Order numbers to 20	Recognise a quarter of an object or a shape
	Order objects and numbers	Count from 20 to 50	Find a quarter of an object or a shape
	Read the number line	20, 30, 40 and 50	Recognise a quarter of a quantity
	Introduce parts and wholes	Count by making groups of tens	Find a quarter of a quantity
	Understand part-whole model	Groups of tens and ones	Describe turns
	Write number sentences	Partition into tens and ones	Describe position - left and right

	Fact families - addition facts Number bonds within 10 Systematic number bonds within 10 Number bonds to 10 Addition - add together Addition - add more Solve addition problems Find a part Subtraction - find a part Fact families - the eight facts Subtraction - take away/cross out (How many left?) Subtraction - take away (How many left?) Subtraction on a number line Add or subtract 1 or 2 Recognise and name 3-D shapes Sort 3-D shapes Recognise and name 2-D shapes Sort 2-D shapes Patterns with 2-D and 3-D shapes	The number line to 50 Estimate on a number line to 50 Find 1 more, 1 less Compare lengths and heights Measure length using objects Measure length in centimetres Understand heavier and lighter Measure mass Compare mass Understand full and empty Compare volume Measure capacity Compare capacity	Describe position - forwards and backwards Describe position - above and below Understand ordinal numbers Count from 50 to 100 Use tens to 100 Partition into tens and ones The number line to 100 1 more, 1 less Compare numbers with the same number of tens Compare any two numbers Recognise coins and notes Count in coins Describe time using before and after Know the days of the week Know the months of the year Know the hours, minutes and seconds Tell the time to the hour Tell the time to the half hour

	Autumn	Spring	Summer
Year 2	**Topic:** Number Geometry	**Topic:** Number Measurement	**Topic:** Number, Measurement, Statistics, Geometry
	Concept: Place Value Addition and Subtraction Shape	**Concept:** Money Multiplication and Division Length and Height Mass, Capacity and temperature	**Concept:** Fractions Time Statistics Position and Direction
	Skills and Knowledge Numbers to 20 Count objects to 100 by making 10s Recognise tens and ones Use a place value chart Partition numbers to 100 Write numbers to 100 in words Flexibly partition numbers to 100 Write numbers to 100 in expanded form Label 10s and 1s on the number line to 100 Estimate numbers on a number line Compare objects and numbers Order objects and numbers Count in 2s, 5s and 10s Count in 3s To know bonds to 10 Find fact families - addition and subtraction bonds within 20 Make bonds to 100 (tens) Add and subtract 1s Add three 1-digit numbers Add to the next 10 and across 10	**Skills and Knowledge** Count money in pence Count money in pounds (notes and coins) Choose notes and coins and make amounts Compare amounts Calculate with money Find ways to make a pound Find change To solve two-step problems Recognise equal groups Make and add equal groups Introduce the multiplication symbol Write multiplication sentences Use arrays Make equal groups by grouping and sharing Know the 2 times-table Divide by 2 Use doubling and halving Identify odd and even numbers Know the 10- times Divide by 10 Know the 5- times tables	**Skills and Knowledge** Introduction to parts and whole Equal and unequal parts Recognise a half Find a half Recognise a quarter Find a quarter Recognise a third Find a third Find the whole Unit fractions Non-unit fractions Recognise the equivalence of a half and two quarters Recognise three-quarters Find three-quarters Count in fractions up to a whole Identify O'clock and half past Read quarter past and quarter to Tell time past the hour Tell time past the hour

	Subtract across 10 and subtract from 10 Subtract a 1-digit number from a 2-digit number (across a 10) Find 10 more, 10 less Add and subtract 10s Add two 2-digit numbers (not across a 10) and then add 2-digit numbers (across a 10) Subtract two 2-digit numbers (not across a 10) and then (across a ten) Compare number sentences Solve missing number problems Recognise 2-D and 3-D shapes Count sides and vertices on 2-D shapes Draw 2-D shapes Find lines of symmetry on shapes Use lines of symmetry to complete shapes Sort 2-D shapes Count faces, edges and vertices on 3-D shapes Sort 3-D shapes Make patterns with 2-D and 3-D shapes	Divide by 5 Practice 5- and 10- times tables Measure in centimetres Measure in metres Compare lengths and heights Order lengths and heights Use four operations with lengths and heights Compare mass Measure in grams Measure in kilograms Four operations with mass Compare volume and capacity Measure in millilitres Measure in litres Four operations with volume and capacity Read temperature Compare mass Measure in grams and kilograms Use four operations with volume and capacity Read temperature	Tell the time to 5 minutes Know how many minutes in an hour Know how many hours in a day Make tally charts Read tables Read block diagrams Draw pictograms (1-1) Interpret pictograms Draw pictograms (2, 5 and 10) Interpret pictograms (2, 5 and 10) Using language of position Describe movement and turns Shape patterns with turns

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	**Topic:** Number	**Topic:** Number	**Topic:** Number Measures	**Topic:** Number Measures	**Topic:** Number Measures	**Topic:** Geometry Statistics Consolidation
	Concept: Place Value Addition and Subtraction	**Concept:** Multiplication and Division Length and perimeter	**Concept:** Multiplication and Division Length and Perimeter	**Concept:** Fractions Mass and Capacity	**Concept:** Fractions Money Time	**Concept:** Shape Graphs
	Skills and Knowledge Represent and partition numbers to 100 Use a number line to 100 Understand the value of hundreds Partition numbers to 1,000 Understand place value of hundreds, tens and ones Find 1, 10 or 100 more or less Estimate on a number line to 1,000	**Skills and Knowledge** Apply number bonds within 10 Add and subtract 1s, 10s and 100s Spot the patterns Add and subtract 1s across a 10 Add and subtract 10s across a 100 Add 2-digit and 3-digit numbers Subtract a 2-digit number from a 3-digit number Complements to 100	**Skills and Knowledge** Multiples of 10 Reasoning about multiplication Multiply a 2-digit number by a 1-digit number - no exchange and with exchange Link multiplication and division Divide a 2-digit number by a 1-digit number - no exchange - flexible partitioning - with remainders Scaling quantities	**Skills and Knowledge** Understand the denominators of unit fractions Compare and order unit fractions Understand the numerators of non-unit fractions Understand the whole Compare and order non-unit fractions Count in fractions on a number line	**Skills and Knowledge** Add and subtract fractions Partition the whole Find unit and non-unit fractions from a set of objects Reasoning with fraction of amounts Convert pound and pence Add and subtract money Calculate change Learn Roman numerals to 12	**Skills and Knowledge** Turns and angles Right angles Compare angles Measure and draw accurately Understand the meaning of horizontal and vertical Understand parallel and perpendicular Recognise and describe 2-D shapes Draw polygons

	Compare and order numbers to 1,000 Count in 50s Apply number bonds within 10 Add and subtract 1s, 10s and 100s Spot the patterns Add and subtract 1s across a 10 Add and subtract 10s across a 100 Add and subtract two numbers (no exchange)	Estimate answers Use Inverse operations Measure in metres and centimetres Measure in centimetres and millimetres Know equivalent lengths (metres, centimetres and mm) Compare, add and subtract lengths	Measure in millimetres, metres and centimetres Know the equivalent lengths Compare lengths Add and subtract lengths Measure and calculate perimeter	Equivalent fractions on a number line and as bar models Use scales Measure mass in grams and kilograms Compare mass Add and subtract mass Measure capacity and volume in millilitres and litres Find equivalent and Compare capacity and volume Add and subtract capacity and volume	Tell the time to 5 minutes and 1 minute Read time on a digital clock Use a.m. and p.m. Solve problems with years, months and days Solve problems with days and hours Find the start and end time with hours and minutes Calculate durations Know units of times	Recognise and describe 3-D shapes Make 3-D shapes Interpret and draw pictograms Interpret and draw bar charts Collect and represent data Understand two-way tables

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4	**Topic:** Number	**Topic:** Number Measures	**Topic:** Number Measures	**Topic:** Number	**Topic:** Geometry Number	**Topic:** Number Measurement
	Concept: Place Value Addition and Subtraction	**Concept:** Area Multiplication and Division	**Concept:** Multiplication and Division Length and	**Concept:** Fractions Decimals	**Concept:** Decimals Money Time	**Concept:** Shape Statistics Position and Direction
	Skills and Knowledge Represent numbers to 1,000 and 10,000 Partition numbers to 1,000 and then 10,000 Use a number line to 1,000 and then 10,000 Represent and partition numbers to 10,000 Find 1, 10, 100, 1,000 more or less Estimate on a number line to 10,000 Compare numbers to 10,000	**Skills and Knowledge** Understand what is area. Count squares to calculate area Make rectilinear shapes Compare areas Know multiples of 3 Multiply and divide by 6, 7 and 9 6 times-table and division facts Know 11 times-table and division facts	**Skills and Knowledge** Find and use factor pairs Multiply and divide by 10 and 100 Use informal written methods for multiplication Multiply and divide a 2-digit number by a 1-digit number Divide a 3 digit by 1-digit number Solve correspondence problems	**Skills and Knowledge** Understand the whole Count beyond 1 Partition a mixed number Number lines with mixed numbers Compare and order mixed numbers Understand improper fractions Convert mixed numbers to improper fractions Equivalent fractions on a number line	**Skills and Knowledge** Make a whole with tenths and hundredths Partition and flexibly partition decimals Compare decimals Order decimals Round to the nearest whole number Halves and quarters as decimals Write money using decimals Write money using decimals	**Skills and Knowledge** Understand angles as turns Identify angles Compare and order angles Name and identify triangles Name and identify quadrilateral Name and identify polygons Draw and identify polygons with lines of symmetry Complete a symmetric figure

	Order numbers to 10,000 Read and write Roman numerals Round to the nearest 10, 100 and 1000 Add and subtract 1s, 10s, 100s and 1,000s Add up to two 4-digit numbers – no exchange Add two 4-digit numbers – one exchanges Add two 4-digit numbers – more than one exchange Subtract two 4-digit numbers – no exchange Subtract two 4-digit numbers – one exchanges Subtract two 4-digit numbers – more than one exchange Efficient subtraction	Know 12 times-table and division facts Multiply by 1 and 0 Divide a number by 1 and itself Multiply three numbers	Measure in kilometres and metres Understand how to calculate perimeter on a grid, rectangle, rectilinear shapes Calculate perimeter of regular and irregular polygons	Add and two or more fractions Add fractions and mixed numbers Subtract two fractions Subtract from whole amounts Subtract from mixed numbers Tenths and fractions and decimals Tenths on a place value chart and a number line Divide a 1-digit and 2-digit number by 10 Hundredths on a place value chart hundredths as fractions and decimals Divide a 1- or 2-digit number by 100	Compare amounts of money Estimate with money Calculate with money Solve problems with money Know the years, months, weeks and days Compare hours, minutes and seconds Convert between analogue and digital times Convert to and from the 24-hour clock	

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	**Topic:** Number	**Topic:** Number	**Topic:** Number	**Topic:** Number Measurement	**Topic:** Geometry Number	**Topic:** Number Measurement
	Concept: Place Value Addition and Subtraction	**Concept:** Multiplication and Division Fractions	**Concept:** Multiplication and Division Fractions Decimals and percentages	**Concept:** Decimals and Percentages Perimeter & Area Statistics	**Concept:** Shape Position and direction Decimals	**Concept:** Decimals Negative numbers Converting units Volume
	Skills and Knowledge: Read, understand, write, order and compare numbers up to 1 000 000. Find powers of 10 and 10/100/1000/ 10,000/ 100,000 more or less Number line to 1, 000, 000 Solve roman numerals to 1, 000 Rounding to the nearest 10, 100, 1000, 10,000 and 100,000. Add and subtract	**Skills and Knowledge:** Multiply and divide mentally using known facts. Identify multiples and factors and use these terms with understanding. Find common factors of two whole numbers Identify prime numbers and explain how they are different from composite numbers	**Skills and Knowledge:** Use a formal written method for multiplication and division up to four digits and with remainders. (Multiply 4-digit by 2-digit and divide 4-digit by 1-digit) Understand the relationship between multiplication and division and use the inverse to check answers. Multiply proper fractions and mixed numbers by whole numbers supported by concrete/pictorial	**Skills and Knowledge:** Recognise and use thousandths and relate them to tenths, hundredths and other decimal equivalences Read, write, order and compare decimal up to three places. Round decimals up to two places to the nearest whole number and one decimal place. Recognise the per cent symbol and understand that	**Skills and Knowledge:** Measure and draw given angles and measure them in degrees accurately Know and identify the features of triangle, rectangle and regular polygons. Identify angles at a point, around a point, on a straight line and in a triangle. Know the difference between regular and irregular polygons. Use the properties of rectangles to find	**Skills and Knowledge:** Solve problems involving numbers up to three decimal places. Solve problems which require knowing percentage and decimal equivalence e.g. ½, ¼, 1/5 To understand negative numbers and solve problems Convert between different unit of metric measure e.g. km and m, l and ml etc. Understand how to

	mentally using increasingly larger numbers. Using a formal written method to add and subtract numbers with more than four digits. Solving multi-step problems using rounding, inversion and estimation to check reliability and accuracy of answers.	Understand the meaning of square and cube numbers and be able to use their notations. Multiply and divide whole numbers by 10, 100 and 1000. Use knowledge of multiples of 10, 100 and 1000 to answer related questions. Identify, name and write equivalent fractions. Compare and order fractions greater and less than 1 Add and subtract fractions with the same denominator Add 3 or more fractions by finding a common denominator Add and subtract fractions to a mixed number including two mixed numbers	resources. Multiply unit and non-unit fractions by an integer Multiply mixed numbers by integers Calculations fractions of quantity Find fractions of an amount Read and write decimal numbers as fractions.	percent relates to number or parts per hundred. Write percentages as a fraction (out of 100). Measure and calculate perimeter of rectilinear shapes and apply this knowledge to calculate unknown side lengths. Find the area of rectangles, compound shapes and irregular shapes. Read, interpret and draw bar charts and line graphs as well as two-way tables Solve comparison, sum and difference problems using bar charts and line graphs. Complete, read and interpret information in tables, including timetables.	missing lengths and angles in shapes Identify 3D shapes, including cubes and cuboids using knowledge of 2D shapes. Read, write and plot co-ordinates in the first quadrant Identify, describe and represent the position of a shape following a reflection or translation. Adding (crossing the whole) and subtracting decimals including with the same number of decimal places To complete decimal sequences Multiplying and dividing decimals by 10, 100 and 1000.	use equivalences between metric units and common imperial units such as inches, pounds and pints. Solve problems involving converting between units of time. To know what the volume (cubes/ cuboids) and to compare and estimate volume including finding the capacity.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6	**Topic:** **Number**	**Topic:** **Number** **Measurement**	**Topic:** **Number**	**Topic:** **Number** **Measure**	**Topic:** **Geometry**	**Topic:** **Consolidation** **SATS**
	Concept: **Place Value** **Addition** **Subtraction** **Multiplication** **Division**	**Concept:** **Fractions** **Converting Units**	**Concept:** **Ratio** **Algebra** **Decimals**	**Concept:** **Fraction, decimals and percentages** **Area, perimeter and volume** **Statistics**	**Concept:** **Shape** **Position and Direction**	**Concept:** **Revision of topics**
	Skills and Knowledge: Read, write, order and compare numbers up to 10,000,000. Find powers of 10 Compare and order any digit and determine the value of each digit. Rounding whole numbers to a required degree of accuracy.	**Skills and Knowledge** Find equivalent and common factors to simplify fractions and common multiples to find equivalences. Compare and order fractions, including fractions > 1 Add and subtract fractions with different denominators and mixed fractions.	**Skills and Knowledge** Use ratio language – ‘For every’ Use objects and diagrams to compare ratios and fractions. Use the colon notation as the ratio symbol, and link the language ‘for every Begin to calculate ratios to find both a part and a whole. Enlarge shapes using scale factors	**Skills and Knowledge** Convert fraction to percentage using equivalent fraction to ensure denominator is 100 Find common equivalent fraction, percentage and decimals Convert between fractions, percentages and decimals to compare and order	**Skills and Knowledge** Measure with a protractor Draw lines and angles accurately To know the total angles on a straight line To know angles around a point equal to 360 ˚ Recognise that vertically opposite angles share a vertex	**Skills and Knowledge** Investigations and Problem solving Across a range of topics Develop calculator skills

	Use negative numbers in context and calculate intervals across zero. Add and subtract any integer Find common factors, multiples including prime, square and cube numbers Multiply multi-digit numbers using the formal written method up to 4 by 2 digit Use short and long division including with remainders Solve multi-step problems with the four operations To use order of operations	To solve multi-step problems with fractions Multiply integers with fractions Multiply simple pairs of proper fractions, writing the answer in its simplest form. Divide fractions by integers Find fraction of amounts including finding the whole To convert and calculate with metric measures including miles and kilometres To convert between imperial measures	Find scale factors when given similar shapes Solve ratio and proportion problems Find and solve one and two step rules and equations To form expressions and using the concept of substitution Understand place value up to 3 decimal places Multiply and Divide whole numbers and decimals by 10,100 and 1000 Multiply and Divide decimals by integers Apply understanding of division to solve problems using division up to 2 decimal places.	Find percentage of an amount starting with 50%, 25%, 10% and 1% only and then building onto multiples of 10% and 5% Use inverse to find missing values when solving a percentage problem Find and draw rectilinear shapes that have the same area. Calculate area and perimeter of rectilinear shapes Explore that shapes with the same area can have the same or different perimeters. Work out the area of different triangles by counting. Use the formula, base × perpendicular height ÷ 2 to	Explore interior angles of a triangle which add up to 180 degrees. Find missing angles in right angle triangles and isosceles triangles Explore angles in quadrilateral that add up to 180 Explore angles in polygons Draw shapes accurately Identify nets of 3D shapes Describe positions on the full coordinate grid. Describe positions on a four-quadrant grid. Draw and translate simple shapes on the coordinate plane and reflect them in the axes.	

			Convert a decimal to a fraction and simplify Convert fraction to decimal finding the equivalent fraction where the denominator is 10, 100 1000, so you are able to divide. Understand the fraction line is same a division.	calculate the area of a variety of triangles Find the area of a parallelogram. Find volume of cuboids by counting cubes and using formula ($l \times w \times h$) Read and interpret line graphs Draw Line graphs Solve problems using line graphs Label parts of a circle Read and Interpret pie charts Draw Pie charts using knowledge of angles Find the mean using formula Mean = Total ÷ number of items.		