Perryfields Infant School

KS1 MATHS Coverage

Year 1

Half term + block	Key knowledge	Key skills
Autumn 1 Place value	• Which signs represent equal, more than, less than. • Understand more, most, less, least, fewer, fewest, forwards, backwards in relation to numbers 0-10.	• Count forward **and back** in 1s to 10. • Read and write numbers to 10. • Identify one more or less within 10. • Count a given number of objects within 10. • Place numbers 0-10 on a number line.
Addition	• Number bonds to 10 – focus on addition. • How to read an addition number sentence in words.	• Read, write and solve number problems involving + and = • Add single digit numbers. • Solve one step addition and missing number problems within 10.
Autumn 2 Subtraction	• Number bonds to 10 - focus on subtraction. • How to read a subtraction number sentence in words.	• Read, write and solve number problems involving - and = • Subtract single digit numbers. • Solve one step subtraction and missing number problems.
Shape	• Names of common 2D shapes: rectangle, square, circle, triangle. • Names of common 3D shapes: cube, cuboid, sphere, pyramid.	• Recognise and name common 2D shapes. • Recognise and name common 3D shapes.
Place value	• Which way round the numbers in a two digit (teen) number are placed. • Understand more, most, less, least, fewer, fewest, forwards, backwards in relation to numbers 0-20	• Count forward and back in 1s to 20. • Read and write numbers to 20. • Identify one more or less within 20. • Count a given number of objects within 20.

	• *Odd and even numbers (relate to Numicon pieces)*	• Place numbers 0-20 on a number line.
Spring 1 Addition and subtraction	• Number bonds to 20 (and how they relate to number bonds to 10) • How to read a number sentence where the answer is written at the start of the sentence.	• Read, write and solve number problems involving + - and = including where the answer is written first. • Add and subtract one and two digit numbers within 20. • Solve one step addition, subtraction and missing number problems.
Place value	• Begin to understand that the two digits represent tens and ones and that more tens means the number is bigger. • The fact that the tens digits increase in ones in just the same as the ones digits do. • Difference between teen and –ty numbers. • Understand more, most, less, least, fewer, fewest, forward, backwards in relation to numbers 0-50.	• Count forward and back in 1s to 50. • Read and write numbers to 50. • Identify one more or less within 50. • Represent numbers to 50 using objects. • Place numbers 0-50 on a number line.
Spring 2 Place value and calculation	• The patterns of the ones digit when counting in 2s, 5s and 10s.	• Maintain understanding of counting and ordering numbers to 50. • Count in 2s, 5s and 10s.
Length	• Meaning of words related to length – long/ short, longer/ shorter, taller/ shorter. • How to measure accurately.	• Measure and record lengths. • Compare and describe lengths.
Multiplication and division	• Multiplication means lots of or groups of. • Division means shared between or split into groups of. • Arrays can represent multiplying or dividing.	• Count in 2s. 5s and 10s. • Solve one step problems involving multiplication. • Solve one step problems involving division.
Summer 1 Fractions	• That halves and quarters are equal parts of a whole. • How ½ and ¼ are written.	• Recognise half as one of two equal parts. • Recognise a quarter as one of four equal parts.

Weight	• Meaning of words related to weight – heavy/ light, heavier/ lighter, balanced.	• Measure and record mass. • Compare and describe masses.
Capacity (could be covered after fractions)	• Meaning of words related to capacity and volume – full/ empty, more than/ less than, half full.	• Measure and record capacity. • Compare and describe capacity.
Position and direction	• Right and left. • Need to count from the NEXT square/ count the steps. • Concept of a quarter/ right angle turn.	• Describe direction (right, left) and movement (forward, backwards, turn). • Describe size of turn (whole, half quarter, three quarters).
Summer 2 Place value	• The order of the numbers 50-100. • With bigger numbers, you can represent tens with one shape and ones with another.	• Count to and across 100, forwards and backwards, starting from different places. • Count, read and write numbers to 100. • Identify one more or one less within 100. • Represent numbers to 100. • Place numbers to 100 on a number line.
Money	• The fact that not all values can be made with one coin – know which exist. • Relative values of different coins (order). • The fact that adding coins is like adding numbers. • Notation for pounds and pence/ pennies.	• Recognise different denominations of coins and notes. • Make exact sums of money using coins.
Time	• Vocabulary related to passage of time – earlier, later, before, after, longer, shorter. • Names of days and months, in order. • Which hand points to the hour and which to the minutes. • Where the long hand is at o'clock and half past. • Where the short hand is at half past.	• Sequence events in chronological order. • Use language relating to dates, including days, months and years. • Read the time to the hour and half hour. • Draw the time to the hour and half hour. • Compare and describe times. • Begin to measure and record time.

	• There are 60 minutes in an hour and 60 seconds in a minute.	

Year 2

Half term + block	Key knowledge	Key skills
Autumn 1 Place value	• Place value is the value given to a digit depending on which column it is in. • When comparing two digit numbers, one looks at the number of tens first. • Partitioning means chopping numbers into parts. • Number bonds are pairs of numbers making a total.	• Recognise the place value of each digit in a 2 digit number. • Compare and order numbers. • Partition numbers into tens and ones. • Partition numbers into different combinations of tens and ones. • Recall all number bonds to and within 10. • Calculate number bonds to and within 20, using knowledge of bonds to and within 10.
Addition	• Methods – use fingers and count on for single digits, only change the tens when adding a multiple of ten, sticks and dots to add two digits. • = means “is the same as” and shows balance. It can have calculations on both sides. • When adding positive numbers, the answer will be the biggest number.	• Add one digit to two digits - revision. • Add multiple of 10 to two digits - revision. • Add any two digit numbers, explaining/ showing method. • Use reasoning about addition to solve more complex problems and explain reasoning (eg. what happens when you add two odd numbers; balancing equations) (GD)
Autumn 2 Subtraction	• Methods – count back if subtracting a single digit, only change the tens when subtracting a multiple of 10, blank number line to subtract 2 two digit numbers. • When subtracting positive numbers, the starting number must be the biggest. • Subtraction can be solved by counting forward.	• Subtract one digit from 2 digits – revision • Subtract multiple of 10 from two digits – revision • Subtract any two digit numbers, explaining/ showing method. • Solve unfamiliar word problems with addition and/or subtraction, involving 2 steps (GD).

	• Subtraction is the inverse of addition – same numbers appear in a different order.	
Money	• Equivalence of coins eg. 50p = 5 x 10p • £1 = 100p • To give change, count on to the next 10, then on in 10s. • Giving change is recorded as subtraction. • £ go before the number, p goes after. • If there is £ sign, there must be 2 digits after the decimal point and no p.	• Make sums of money using coins – revision. • Use different coins to make the same amounts. • Begin to find change.
Multiplication	• X can be read as lots of or show how many times a group of a given size is made. • Multiplication is the same as repeated addition of the same number. • The ones number can indicate which times table is being used. • The answer must be the biggest number.	• Recall multiplication facts for 2s, 5s and 10s. • Use multiplication facts for 2s, 5s and 10s to solve simple problems. • Make deductions outside known facts (GD).
Spring 1 Division	• ÷ can be read as shared between or made into groups of. • The answer is either the number of groups or the number in a group. • Division is the inverse of multiplication. • The answer must be smaller than the start number.	• Recall division facts for 2s, 5s and 10s. • Use division facts from 2s, 5s and 10s to solve problems.
Statistics	• The scale is like counting in 1s, 2s, 5s or 10s. • If any of the numbers on the scale are 5s, the scale is in 1s or 5s. If any are 4/6/8, the scale is probably 2s. • If not all the numbers appear, count on in steps of a given size until you land on a number and see if it is the same	• Read scales in divisions of 1s and 10s. • Read scales in divisions of 2s and 5s. • Read scales where not all numbers are marked and estimate points between (GD). • Solve word problems using statistics.

	as the one you have said. • How many more/ find the difference means count on or take away.	
Spring 2 Shape	• Meaning of sides, symmetry (2d) • Meaning of faces, edges, vertices/ vertex, apex (3d) • Additional 2D shapes: quadrilateral, pentagon, hexagon, octagon. Teach that a square is a type of rectangle. • Additional 3D shapes: prism, hemisphere. • Not all shapes have to be regular. • May need to use the words opposite and parallel.	• Name 2D shapes - revision. • Describe number of sides of 2D shapes. • Describe lines of symmetry of 2D shapes. • Name 3D shapes - revision. • Describe number of vertices of 3D shapes. • Describe number of edges of 3D shapes. • Describe number and shape of faces of 3D shapes. • Compare properties of shapes (GD).
Fractions	• Meaning of fractions – equal parts of a whole. • Meaning of numerator and denominator and what they show. • The line can be read as “parts out of every” or just “out of” (1/2 means one out of two and ¾ means 3 parts out of every four). This way, children will be able to find fractions where there are more pieces than the denominator. • Half of all even numbers 20 and below and half of all multiples of 10. • How to find half of other numbers by splitting numbers eg. ½ of 38 = ½ of 30 + ½ of 8.	• Identify 1/2 of a number or shape and know that parts must be equal. • Identify 1/3 of a number or shape and know that parts must be equal. • Identify ¼ of a number or shape and know that parts must be equal. • Identify 2/4 of a number or shape and know that parts must be equal. • Identify 3/4 of a number or shape and know that parts must be equal.
Length and height	• 1m = 100cm • Measuring skills – which end of the ruler to start etc. • Suitable units to measure different size objects. • How to estimate based on something they know.	• Estimate, measure and record lengths to nearest cm or m. • Compare and order lengths.

Summer 1 Time	• How to compare lengths of time where some are given in hours and some in minutes. • That in digital time the hours go first but in spoken times they go after the minutes. • That spoken times are "to" the next hour if the long hand is more than half way round. Digital times are always past the hour. • Equate quarter hours to quarter cakes etc.	• Read the time to the nearest 15 minutes. • Draw the time to the nearest 15 minutes. • Read and draw times to 5 minutes (GD). • Compare times using correct vocabulary – longer/ shorter, earlier/ later.
Weight	• 1kg = 1000g • That half of 100g = 50g, half of 500g = 250g • Suitable units to measure different size objects. • How to estimate based on something they know.	• Estimate, measure and record mass to the nearest 100g/kg • Compare and order masses.
Position and direction	• Meaning of clockwise (right) and anti-clockwise (left). • Revise Y1 learning on right/left, where to count from, size of turn, combining movement and turn.	• Describe position, direction and movement of a single object. • Describe position, direction and movement of shapes in a pattern.
Summer 2 Capacity	• 1litre = 1000ml • That half of 100ml = 50ml and half of 500ml = 250ml • How to estimate capacity based on something they know.	• Estimate, measure and compare capacity/ volume to the nearest 100ml/ litre. • Compare and order capacity.
Temperature	• That temperature is measured in degrees. • *Look at outdoor thermometers and discuss negative numbers.*	• Read a temperature scale. • Use terms hotter/ colder correctly.
Investigations and problems	• That ideas should be tested with different numbers. • How to develop a system to find all solutions. • How to test using the inverse and knowledge about the size and	• Find more than one solutions to a problem. • Choose the appropriate strategy and operation to solve a word problem. • Use the inverse. • Generalise beyond known facts (GD).

	relative position of numbers. • Which words indicate which operations.	