Autumn 1	Autumn 2

Place Value:
• Compare and order numbers from 0 up to 100, use < , > and = signs.
• Identify and represent numbers using a range of pictorial representations including the number-line. (*Deepen understanding of the relationship between the concrete and ordinal for numbers up to 100. E.g. '43 is four tens and three ones' (using concrete objects) and also '43 is three more than 40' (position on a number-line)*
• Count in steps of 10 and 2 from any number, forward or backward. *(Given a number, identify one/ten more and one/ten less bridging through tens and through one hundred)*
• Use place value and number facts (including number bonds) to solve problems involving one/ten more and one/ten less.
• Read and write numbers to at least 100 in numerals and words
 	
Addition and Subtraction:
• Solve a range of addition and subtraction problems that involve:
  • 2 digit + / - single digit (no bridging) e.g. 25 + 4
  • 2 digit + / - 10 (e.g. 64 – 10)
 	
Measurement (Money):
• Find different combinations of coins that equal the same amounts of money.
• Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.
• Use coins to count in 2ps, 5ps and 10ps.
• Solve problems in a practical context involving addition and subtraction of money of the same unit.
• Solve problems with addition and subtraction, applying their increasing knowledge of mental recall of number bonds to 20.
• Add and subtract numbers using concrete objects, pictorial representations and mentally, including a 2-digit number and tens.
 	
Addition and Subtraction:
Recall addition and subtraction facts to *10 with a focus on subitising*
	Addition and Subtraction:
	• Recall addition and subtraction facts to *10 and then* 20 fluently.
	• Solve a range of addition and subtraction problems that involve:
	  - 2 digit + / - single digit (no bridging) e.g. 25 + 4
	• Add / subtract within 20
	  - Write the associated subtraction facts (17 – 4 = 13, 17 – 13 = 4).
	Emphasise mental fluency – recall and use of known facts. Missing number problems that use number bonds to ten and twenty e.g. 25 + ? = 29 / ? = 20 – 8 / 10 + 2 > 3 + ?
	
	Multiplication and Division:
	• Count reliably in 2s, 5s and 10s from zero
	• Link counting in 2s, 5s ,10s to grouping objects and to the pattern of numbers on a number-line.
	• Solve problems involving groups of 2, 5 and 10 objects using pictorial recording.
	• Draw arrays. Notice commutativity. Record pictorially, then abstract.
	• Recognise odd and even numbers.
	
	Geometry:
	• Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line
	• Identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid.
	
	Measurement (Money):
	• Find different combinations of coins that equal the same amounts of money.
	• Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.
	• Use coins to count in 2ps, 5ps and 10ps.
	• Solve problems in a practical context involving addition and subtraction of money of the same unit.
	• Solve problems with addition and subtraction, applying their increasing knowledge of mental recall of number bonds to 20.
	• Add and subtract numbers using concrete objects, pictorial representations and mentally, including a 2-digit number and ones
	• Add three one-digit numbers.
	
	Mega Maths: *(Revisit Fluency with mental strategies using number facts to 20, Positioning on the number line and Place Value in Aut 2)*

Spring 1	Spring 2
Measures (length and mass / Money): • Find different combinations of coins that equal the same amounts of money • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • Compare and order lengths, mass, volume/capacity and record the results using >, < and = • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) **Addition and Subtraction:** • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones (bridging – Encourage the move from pictorial to abstract) - a two-digit number and tens • Use pictorial representation of tens and ones to record addition and subtraction number sentences; 2-digit number to add or subtract ones. (begin bridging) • Solve one-step problems that involve addition and subtractions of 2-digit numbers and ones, using concrete objects and pictorial representations (begin bridging). • Recall addition and subtraction facts to *10 and then* 20 fluently. • Applying their increasing knowledge of mental and written methods • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot **Fractions:** • Recognise, name and write a half as one of two equal parts of a quantity • Recognise, find, name and write fractions as equal parts of a shape (link to symmetry and folding). Focus on 1/2, 1/4, 2/4 = 1/2 • Tell and write the time to quarter past/to. **Measures (Time):** • Know the number of minutes in an hour and the number of hours in a day. • *Link counting in 5s to counting in minutes on a clock face.* • Tell and write the time to five minutes, including quarter past/ to the hour and draw the hands on the clock face to show these times **Shape:** • Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces (*Revisit Fluency with mental strategies using number facts to 20, Multiplication and Division, Money and Geometry throughout Mega Maths in Spring 1)*	**Addition and Subtraction:** • Applying their increasing knowledge of mental and written methods • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • **A**dding three one-digit numbers **Statistics:** • Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • Construct simple pictograms and tally charts. **Multiplication and Division (inc. doubling and halving):** • Count forward and back in 2s, 5s, 10s and 3s • Develop the concept of sharing and grouping into different sized groups (not just 2s) • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables • Doubling and halving: Write simple fractions e.g. 1/2 of 6 = 3 • Solve problems involving multiplication using materials, arrays, repeated addition, mental methods • Calculate mathematical statements for multiplication within the multiplication tables and write them using the multiplication (×) and equals (=) signs • Show that multiplication of two numbers can be done in any order (commutative) and that division cannot • Solve problems involving division using materials, arrays and mental methods **Measures (length and mass):** • Choose and use appropriate standard units to estimate and measure mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels **Position and Direction:** • Order and arrange combinations of mathematical objects in patterns and sequences • Use mathematical vocabulary to describe position, direction and movement including movement in a straight line • Distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) (*Revisit Fluency with mental strategies using number facts to 20, Geometry, Fractions, Money, Measures: length, mass and time throughout Mega Maths in Spring 2)*

Summer 1	Summer 2
Number and Place Value: • Count in steps of 2, 10, 5 and 3 • Compare and order numbers from 0 up to 100; use < , > and = signs • Read and write numbers to at least 100 in numerals and in words • Use place value and number facts (including number bonds) to solve problems **Fractions:** • Recognise, find, name and write fractions 1 / 3 , 1 / 4 , 2 / 4, 3 / 4 of a length, shape, set of objects or quantity • Write simple fractions e.g. 1 / 2 of 6 = 3 and recognise the equivalence of 2 / 4 and 1 / 2. • Pupils should count in fractions up to 10, starting from any number and using the1/2 and 2/4 equivalence on the number line (Non Statutory Guidance) **Addition and Subtraction:** • Recall and use addition and subtraction facts to 20 fluently and use related facts up to 100. • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - two two-digit numbers • Applying their increasing knowledge of mental and written methods • Adding three one-digit numbers • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot **Geometry (Shape):** • Identify and describe properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • Compare and sort common 2-D and 3-D shapes and everyday objects **Measures (Time):** • Compare and sequence intervals of time • Know the number of minutes in an hour and the number of hours in a day. • Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. (*Revisit Fluency with mental strategies using number facts to 100, Multiplication and Division, Geometry: Position and Direction, Statistics throughout Mega Maths in Summer 1)*	**Multiplication and Division:** • Recall and use multiplication and division facts for the 2, 10 and 5 multiplication tables • Show that multiplication of two numbers can be done in any order (commutative) • Calculate mathematical statements for multiplication and write them using the multiplication (×) sign and division statements using division (÷) equals (=) signs • Count in steps of 3 from 0 • Show that division of one number by another cannot be done in any order **Addition and Subtraction:** Solve problems with addition and subtraction: Using measures • Derive and use related facts up to 100 • Add and Subtract two two-digit numbers • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. Solve problems with addition and subtraction: Using quantities **Measures (application of knowledge – word problems)** • Compare and order lengths, mass, volume/capacity and record the results using >, < and = • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels **Money:** • Find different combinations of coins that equal the same amounts of money • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change • Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value **Statistics:** • Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity • Interpret and construct simple pictograms, tally charts, block diagrams and simple tables • Ask and answer questions about totalling and comparing categorical data (*Revisit Fluency with mental strategies using number facts to 100, Fractions, Measures: Length, Mass and Capacity, Geometry: 2D/3D Shape, Add/Sub with Measures including Time and Money throughout Mega Maths in Summer 2)*