Listerdale Junior Academy – Year 5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	We
Autumn Each week: M- Daily arithmetic -10 qus T- Number of the week W- Daily arithmetic- 10 qus Th- Number connections F – Daily arithmetic –10 qus Daily arithmetic to include all operations at the appropriate level Ensure differentiation takes place is needed	Number: Place Value *National Curriculum objectives* *1. Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit* *2. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000* *3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero* *4. Round up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000* *5. Solve number problems and practical problems that involve all of the above* *6. Read Roman numerals to 1000 and recognise years written in Roman numerals* Small Steps Week 1 ● Counting in 10s, 100s, 1,000s, 10,000s and 100,000s (forwards and backwards) ● Numbers to 1 million ● Compare and order numbers to 1 million x 2 Week 2 ● Round numbers to 1 million x 2 ● Negative numbers		Number: Addition and Subtraction *National Curriculum objectives* *1. Add and subtract whole numbers with more than 4 digits, including using formal written methods* *2. Add and subtract numbers mentally with increasingly large numbers* *3. Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy* *4. Solve multi-step problems in contexts, deciding which operations and methods to use and why* Small Steps Week 1 ● Add whole numbers numbers with more than 4 digits (column method) – 1 exchange ● Add whole numbers numbers with more than 4 digits (column method) – more than 1 exchange ● Subtract whole numbers numbers with more than 4 digits (column method) – 1 exchange ● Subtract whole numbers numbers with more than 4 digits (column method) – more than1 exchange Week 2 ● Mental addition and subtraction (with increasingly large numbers) ● Inverse operations (+ and -) ● Multi-step addition and subtraction problems x2 Link to money		Number: Multiplication and Division *National Curriculum objectives* *1. identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers* *2. Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers* *3. Establish whether a number up to 100 is prime and recall prime numbers up to 19* *4.. Multiply and divide numbers mentally drawing upon known facts* *5. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000* *6. Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)* *7. Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes* Small Steps Week 1 ● Multiples ● Factors and common factors ● Prime numbers ● Square numbers Week 2 ● Cube numbers ● Multiply by 10, 100, 1,000 ● Divide by 10, 100, 1,000 ● Multiples of 10, 100, 1,000	Statistics *National Curriculum objectives* *1. Solve comparison, sum and difference problems using information presented in a line graph* *2. Complete, read and interpret information in tables, including timetables.* Small Steps Week 1 ● Read and interpret line graphs ● Draw lone graphs ● Use line graphs to solve problems ● Timetables	Number: Fractions *National Curriculum objectives* *1. compare and order fractions whose denominators are all multiples of the same number* *2. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths* Small Steps Week 1 ● Equivalent fractions x 2 ● Compare and order fractions less than one ● Compare and order fractions greater than one	Number: Decimals *National Curriculum objectives* *1. Round decimals with two d.p to the nearest whole number and to one d.p* *2. Read, write, order and compare numbers with up to three decimal places* *3. use thousandths & relate them to tenths, hundredths & decimal equivalents* Small Steps Week 1 ● Rounding to 1 d.p ● Rounding to whole number ● Order and compare decimals 3 d.p ● use thousandths & relate them to tenths, hundredths & decimal equivalents	Geometry: Shape *National Curriculum objectives* *1. Identify 3-D shapes from 2-D representations* *2. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles* *3. Draw given angles, and measure them in degrees (o)* Small Steps Week 1 ● Properties of 2D and 3D shapes ● Identify angles ● Measure angles with protractor ● Draw angles with a protractor	Measurement: Perimeter and Area *National Curriculum objectives* *1. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres* *2.. Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes* Small Steps Week 1 ● Calculate and measure perimeter ● Area of rectangles (cm and m) ● Area of compound shapes (cm and m) ● Area of irregular shapes (cm and m)	Assessme
Spring Each week: M- Daily arithmetic -10 qus T- Number of the week W- Daily arithmetic- 10 qus Th- Number connections F – Daily arithmetic –10 qus Daily arithmetic to include all operations at the appropriate level Ensure differentiation takes place is needed	Number: Place value *National Curriculum objectives* *1.. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero* *2. Round up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000* *3. Solve number problems and practical problems that involve all of the above* Small Steps Week 1 ● Rounding to 1 million ● Negative numbers ● Roman numerals to 1,000 Reasoning and problem solving		Number: Multiplication and Division *National Curriculum objectives* *1.. Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers* *2.. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context* *3.. Solve problems involving addition, subtraction, multiplication and division and a combination of these, understanding the meaning of the equals sign* *4.. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates* Small Steps Week 1 ● Multiply 2/3/4 digits by 1 digit x 2 ● Multiply 2/3/4 digits by 2 digits x2 Week 2 ● Divide 2/3/4 digits by 1 digit x 2 ● Dived with remainders x 2		Number: Fractions *National Curriculum objectives* *1. compare and order fractions whose denominators are all multiples of the same number* *2. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths* *3. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number 4. Add and subtract fractions with the same denominator and denominators that are multiples of the same number* *5. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams* Small Steps Week 1 ● Improper fractions to mixed numbers ● Mixed numbers to improper fractions ● Add fractions (inc within 1) ● Subtract fractions (inc within 1) Week 2 ● Add 3 or more fractions ● Add mixed numbers x 2 ● Subtract mixed number ● Subtract – breaking the whole Week 3 ● Multiply unit and non-unit fractions by integer ● Multiply mixed numbers by integer x 2 ● Calculate fractions of a quantity ● Fraction of an amount	Number: Decimals and Percentages *National Curriculum objectives* *1.. Read and write decimal numbers as fractions [for example, 0.71 = 100 71]* *2. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents* *3. Round decimals with two d.p to the nearest whole number and to one d.p* *4. Read, write, order and compare numbers with up to three decimal places* *5. Solve problems involving number up to three decimal places* *6. Recognise the % symbol and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal* *7. Solve problems which require knowing percentage and decimal equivalents of and those fractions with a denominator of a multiple of 10 or 25* Small Steps Weeks 1 ● Equivalent FDP ● Decimals as fractions ● Rounding decimals to 2 D.P ● Ordering decimals Week 2 ● Decimals as fractions ● Understand percentages ● Percentages as fractions and decimals	Number: Addition and Subtraction *National Curriculum objectives* *1. Add and subtract whole numbers with more than 4 digits, including using formal written methods.* *2. Add and subtract numbers mentally with increasingly large numbers* *3.Solve multi-step problems in contexts, deciding which operations and methods to use and why* Small Steps Week 1 ● Adding four digits by more than 1 dgit ● Subtract four digits by more than 1 digit Reasoning and problem solving	Measurement: Time *(Previous years NC objective re-cap)* Small Steps Week 1 ● Telling the time (begin at o'clock and move to minute) ● Converting between analogue and digital Drawing and reading time	Measurement: Perimeter and Area *National Curriculum objectives* *1. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres* *2.. Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes* Small Steps Week 1 ● Calculate perimeter ● Calculate area of compound shape ● Area of irregular shapes ● Reasoning and problem solving	Assessme

Summer Each week: M- Daily arithmetic -10 qus T- Number of the week W- Daily arithmetic- 10 qus Th- Number connections F – Daily arithmetic –10 qus Daily arithmetic to include all operations at the appropriate level Ensure differentiation takes place is needed	Number: Place value *National Curriculum objectives* *1. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero* *2. Round up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000* *3.. Solve number problems and practical problems that involve all of the above* Small Steps Week 1 ● Rounding to 1 million ● Negative numbers ● Roman numerals to 1,000 ● Reasoning and problem solving	Number: Decimals *National curriculum objectives* *1. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents* *2. Round decimals with two d.p to the nearest whole number and to one d.p* *3. Read, write, order and compare numbers with up to three decimal places* *4.. Solve problems involving number up to three decimal places* Small Steps Week 1 ● Adding decimals with the same number of decimal places and adding decimals with different number of decimal places ● Adding wholes and decimals ● Complements to one Week 2 ● Subtracting decimals with the same number of decimal places and subtracting decimals with different number of decimal places ● subtracting wholes and decimals ● Complements to one ● Decimal sequences Link complements to one to money – making £1	Number: Multiplication and division *National Curriculum objectives* *1.Solve problems involving number up to three decimal places* *2,multiply and divide mentally drawing upon known facts* Small Steps Week 1 ● Multiplying decimals by 10, 100, 1,000 ● Dividing decimals by 10, 100, 1,000 ● Multiply 4 digit by 2 digit ● Mental multiplication and division with known facts	Geometry: Properties of Shape *National Curriculum objectives* *1. Identify 3-D shapes from 2-D representations* *2. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles* *3. Draw given angles, and measure them in degrees (o)* *4. Identify: angles at a point and one whole turn (total 360o)angles at a point on a straight line and 2 1 a turn (total 180o) other multiples of 90o* *5. Use the properties of rectangles to deduce related facts and find missing lengths and angles* *6. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.* Small Steps Weeks 1 ● Identify angles and measure with a protractor ● Compare and order angles ● Drawing lines and angles accurately ● Calculating angles - straight line Week 2 ● Calculating angles around a 360 point ● Triangles and Quadrilaterals ● Calculating lengths and angles in shapes ● Parallel and perpendicular lines (re-cap) – can embed as a statter ● Regular and irregular polygons	Geometry: Position and Direction *National Curriculum objectives* *1. Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed* Small Steps Week 1 ● Position in the first quadrant ● Translation ● Translation with coordinates Week 2 ● Lines of symmetry ● Complete a symmetric figure ● Reflection ● Reflection with coordinates	Measurement: Covering Units *National Curriculum objectives* *1. Convert between different units of metric measure* *2. Understand and use approximate equivalences between metric units and common imperial units* *6. Solve problems involving converting between units of time* Small Steps Week 1 ● Mass conversion (ml, l, g, kg) ● Distance conversion (mm, cm, m, km) ● Kg to lb and inches to cm ● Lb to grams Week 2 ● Recap time to nearsest minute and 24 hour clock ● Converting units of time ● Timetables Check money – £/ps	Measurement: Volume *National Curriculum objectives* *1. Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]* Small Steps Week 1 ● What is volume? ● Compare volume ● Estimate volume ● Estimate capacity	Assessme

Any spare weeks in any term = gap analysis