Stepping Stone Pathways

Writing:

Pathway One	Pathway Two	Pathway Three	Pathway Four
Year One	Year Two	Year Three & Four	Year Five & Six

Reading:

Pathway One	Pathway Two	Pathway Three	Pathway Four
Year One	Year Two	Year Three & Four	Year Five & Six

Maths:

Pathway One	Pathway Two	Pathway Three	Pathway Four	Pathway Five
Year One	Year Two	Year Three	Year Four	Year Five

Stepping Stones for 'Number' and 'Other'

Foundation Subjects:
Assessed in 'best fit' judgements against assessment criteria directly from the National Curriculum

Stepping Stone Assessment
Maths- Other
Pathway One

I can recognise and name common 3-D shapes (cuboids, (including cubes), pyramids and spheres)

I can describe position, direction and movement, including whole, half, quarter and three-quarter turns

I can measure and begin to record mass/weight

I can measure and begin to record capacity and volume

I can recognise and name common 2-D (rectangles, (including squares), circles and triangles)

I can compare, describe and solve practical problems for lengths and heights (i.e. Long/short, longer/shorter, tall/short, double/half)

I can measure and begin to record lenghts and heights

I can measure and begin to record time (hours, minutes, seconds)

I can tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

I can compare, describe and solve practical problems for mass/weight (i.e. heavy/light, heavier than, lighter than)

I can compare, describe and solve practical problems for time (i.e. quicker, slower, earlier, later)

I can recognise and know the value of different denominations of coins and notes

I can recognise and use language relating to dates, including days of the week, weeks, months and years

I can recognise, find and name a half as one of two equal parts of an object, shape or quantity

I can compare, describe and solve practical problems for capacity and volume (i.e. full/empty, more than, less than, half, half full, quarter)

I can sequence events in chronological order using language (i.e. before and after, next, first, today, yesterday, tomorrow, morning)

Name_____

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

Stepping Stone Assessment
Maths- Number
Pathway One

I can count in multiples of twos, fives and tens

Given a number, I can identify one more and one less

I can identify and represent numbers using objects and pictorial representations including the number line

I can use the language of: equal to, more than, less than (fewer), most and least to identify and represent numbers

I can solve one-step problems involving multiplication & division, by calculating the answer using concrete objects, pictorial representations and arrays with support of the teacher

I can count, read and write numbers to 100 in numerals

I can read and write numbers from 1 to 20 in numerals

I can solve one-step problems that involve addition and subtraction, using concrete and pictorial representations, and missing number problems such as 7 = X - 9

I can count to and across 100, forwards or backwards from any given number

I can read and write numbers from 1 to 20 in words

I can add and subtract one-digit and two-digit numbers to 20, including zero

I can count to and across 100, forwards or backwards, beginning with 0 or 1

I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs

I can represent and use number bonds

I can relate subtraction facts within 20

Name _____

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

Stepping Stone Assessment
Maths- Other
Pathway Two

I can compare and sort common 2-D and 3-D shapes and everyday objects.

I can order and arrange combinations of mathematical objects in patterns and sequences

I can choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm);) to the nearest appropriate unit, using rulers.

I can choose and use appropriate standard units to estimate and measure in mass (kg/g); using scales

I can identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]

I can use mathematical vocabulary to describe position, direction and movement, including movement in a straight line

I can choose and use appropriate standard units to estimate and measure in capacity (litres/ml) using measuring vessels.

I can choose and use appropriate standard units to estimate and measure in temperature (°C); using thermometers

I can identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces

I can distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).

I can compare and order lengths, mass, volume/capacity and record the results using >, < and =

I can identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line

I can recognise, find, name and write fractions ¼ 2/4 1/3 and ¾ of a length, shape, set of objects or quantity

I can solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change

I can recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value

I can compare and sequence intervals of time

I can write simple fractions for example, 1/2 of 6 = 3

I can recognise the equivalence of 2/4 and 1/2 .

I can know the number of minutes in an hour and the number

I can 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

I can find different combinations of coins that equal the same amounts of money

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

Name _____

Stepping Stone Assessment Maths- Number
Pathway Two

I can compare and order numbers from 0 up to 100; use <, > and = signs

I can solve problems with addition and subtraction:

I can use concrete objects and pictorial representations, including those involving numbers, quantities and measures

I can recall and use multiplication and division facts for for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers

I can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

I can identify, represent and estimate numbers using different representations, including the number line

I can use place value and number facts to solve problems.

I can apply my increasing knowledge of mental and written methods

I can recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot

I can each partition each digit in a two-digit number (tens, ones)

I can read and write numbers to at least 100 in numerals and in words

I can recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100

I can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot

I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

I can count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward

I can add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones

I can add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers

I can interpret and construct simple pictograms, tally charts, block diagrams and simple tables

I can solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

I can ask and answer questions about totalling and comparing

categorical data

I can add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and tens

I can add and subtract numbers using concrete objects, pictorial representations, and mentally, including: adding three one-digit numbers

Name _____

Stepping Stone Assessment
Maths- Other
Pathway Three

I can compare and order unit fractions, and fractions with the same denominators

I can solve problems that involve all of the above

I can compare durations of events [for example to calculate the time taken by particular events or tasks]

I can draw 2-D shapes and make 3-D shapes using modelling materials

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines

I can add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7}$ +, $\frac{1}{7}$ = , $\frac{6}{7}$]

I can interpret and present data using bar charts, pictograms and tables

I can recognise 3-D shapes in different orientations and describe them

I can identify whether angles are greater than or less than a right angle

I know the number of seconds in a minute and the number of days in each month, year and leap year

I can recognise and show, using diagrams, equivalent fractions with small denominators

I can solve one-step and two-step questions [i.e, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables

I can recognise angles as a property of shape or a description of a turn

I can recognise that four make a complete turn

I can recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators

I can use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight

I can identify right angles

I can recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators

I can measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

I can estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours

I can recognise that two right angles make a half-turn

I can recognise that three make three quarters of a turn

I can count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

I can measure the perimeter of simple 2-D shapes

I can add and subtract amounts of money to give change, using both £ and p in practical contexts

I can tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks

Name _____

Stepping Stone Assessment
Maths- Number
Pathway Three

I can identify, represent and estimate numbers using different representations

I can read and write numbers up to 1000 in numerals and in words

I can solve number problems and practical problems involving these ideas

I can solve problems using more complex addition and subtraction.

I can recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables

I can compare and order numbers up to 1000

I can add and subtract numbers mentally, including: a three-digit number and ones

I can solve problems including place value

I can write and calculate mathematical statements for multiplication and division

I can recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

I can add and subtract numbers mentally, including: a three-digit number and tens

I can solve problems using number facts

I am beginning to multiply two-digit numbers by one-digit numbers, using a formal written method

I can solve problems, including missing number

I can find 10 or 100 more or less than a given number

I can add and subtract numbers mentally, including: a three-digit number and hundreds

I can estimate the answer to a calculation and use inverse operations to check answers

I can solve problems, including missing number problems, involving multiplication and division

I can count from 0 in multiples of 4, 8, 50 and 100

I can subtract numbers with up to three digits

I can add numbers with up to three digits

I can use formal written methods of columnar addition

I can use formal written methods of columnar subtraction

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

I can solve problems, including positive integer scaling problems and correspondence problems

Name _____

Stepping Stone Assessment
Maths- Other
Pathway Four

I solve problems involving fractions to calculate and divide quantities.

I recognise and write decimal equivalents of any number of tenths and hundredths.

I can compare and classify geometric shapes based on their properties and sizes

I can identify acute and obtuse angles up to two right angles by size

I can identify lines of symmetry in 2-D shapes presented in different orientations

I can add and subtract fractions with the same denominator

I can recognise decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$

I solve problems involving converting time for example, hours to minutes

I can draw a shape with a specific line of symmetry

I can count up and down in tenths and hundredths

I can round decimals with one decimal place to the nearest whole number.

I can identify ones, tenths and hundredths when dividing a one or two digit number by 10 and 100.

I can read, write and convert time between analogue and digital 12- and 24- hour clocks

I can describe positions on a 2-D grid as co-ordinates in the first quadrant.

I can recognise and show families of equivalent fractions

I can compare numbers with the same number of decimal places up to two decimal places

I can measure and calculate perimeter of a rectangle in cm and m.

I can estimate, compare and calculate different measures, including money in pounds and pence.

I can describe movements between positions, using appropriate vocabulary, such as left/right, up/down.

I solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other tables,

I solve measure and money problems involving fractions and decimals to two decimal places

I can convert between different units of measure, for example, kilometre to metre, hour to minute

I can find the area of rectilinear shapes by counting squares

I can plot specified points and draw sides to complete a given polygon.

I can interpret and present discrete and continuous data using bar charts and time graphs.

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

Name _____

Stepping Stone Assessment Maths- Number
Pathway Four

I recognise the place value of each digit in a four-digit number.

I can subtract numbers with up to 4 digits using a formal written method.

I can count backwards through zero to include negative numbers.

I can identify, represent and estimate numbers using different representations.

I can add numbers with up to 4 digits using the column method.

I can estimate and use inverse operations to check answers to a calculation.

I solve number and practical problems that involve all of the above.

I can find 1000 more or less than a given number.

I can order and compare number beyond 1000.

I can round any number to the nearest 10, 100 and 1000.

I can recall multiplication and division facts for times tables up to 12 x 12.

I solve problems involving multiplying and adding, using the correct methods to multiply two-digit numbers by one digit.

I can count in multiples of 6, 7, 9, 25 and 1000.

I solve addition and subtraction two-step problems in contexts.

I can read Roman numerals to 100 (I to C)

I can recognise and use factor pairs and commutativity in mental calculations.

I can multiply two-digit and three-digit numbers by a one-digit number using a written layout.

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

I know that the number system changed over time to include the concept of zero and place value.

I can use place value, known and derived facts to multiply and divide mentally, including multiplying and dividing by 0 and 1.

Name _____

Stepping Stone Assessment
Maths- Number
Pathway Five

I can solve number problems and practical problems that involve all of the above

I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals

I can add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)

I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

I can recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})

I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000

I can add and subtract numbers mentally with increasingly large numbers

I can 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

I can solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes

I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero

I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy

I can multiply and divide numbers mentally drawing upon known facts

I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign

I can count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000

I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

I can 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

I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

I can read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit

I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers

I can establish whether a number up to 100 is prime and recall prime numbers up to 19

I can know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

Name _____

Stepping Stone Assessment
Maths- Other
Pathway Five

I can read and write decimal numbers as fractions [for example, 0.71 =]

I can recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents

I can 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

I can estimate volume [i.e. using 1 cm3 blocks to build cuboids (including cubes)] and capacity [i.e. using water]

I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams

I can round decimals with two decimal places to the nearest whole number and to one decimal place

I can solve problems involving converting between units of time

I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

I can solve problems involving converting between units of time

I can 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

I can add and subtract fractions with the same denominator and denominators that are multiples of the same number

I can read, write, order and compare numbers with up to three decimal places

I can use all four operations to solve problems involving measure [i.e. length, mass, volume, money] using decimal notation, including scaling

I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [i.e. + = = 1]

I can solve problems involving number up to three decimal places

I can understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints

I can identify 3-D shapes, including cubes and other cuboids, from 2-D representations

I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles

I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths

I can recognise the per cent 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

I can convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)

I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles

I can use the properties of rectangles to deduce related facts and find missing lengths and angles

I can compare and order fractions whose denominators are all multiples of the same number

I can solve problems which require knowing percentage and decimal equivalents of ½, ¼, ⅓, ⅔, ⅘ and those fractions with a denominator of a multiple of 10 or 25

I can complete, read and interpret information in tables, including timetables

I can draw given angles, and measure them in degrees (o)

I can identify other multiples of 90o

I can solve comparison, sum and difference problems using information presented in a line graph

I can identify angles at a point and one whole turn (total 360o)

I can identify angles at a point on a straight line and a turn (total 180o)

Name _____

Stepping Stone Assessment
Maths- Other Pathway Six

I can find pairs of numbers that satisfy an equation with two unknowns

I can express missing number problems algebraically

I can generate and describe linear number sequences

I can use simple formulae

I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

I can solve problems involving similar shapes where the scale factor is known or can be found

I can solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison

I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts

I can enumerate possibilities of combinations of two variables

I can interpret and construct pie charts and line graphs and use these to solve problems

I can calculate and interpret the mean as an average

I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate

I can use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places

I can recognise, describe and build simple 3-D shapes, including making nets

I can draw 2-D shapes using given dimensions and angles

calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3]

I can calculate the area of parallelograms and triangles

I can recognise when it is possible to use formulae for area and volume of shapes

I can recognise that shapes with the same areas can have different perimeters and vice versa

I can convert between miles and kilometres

I can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons

I can illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius

I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

I can describe positions on the full coordinate grid (all four quadrants)

I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

Name _____

Stepping Stone Assessment
Maths- Number and Fractions   Pathway Six

Orange – Aut 1
Green – Aut 2
Pink – Spr 1
Blue – Spr 2
Yellow – Sum 1
Purple – Sum 2

I can divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division

I can compare and order fractions, including fractions > 1

I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

I can multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication

I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination

I can multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, × =

I can interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context

I can solve number and practical problems that involve all of the below

I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

I can divide proper fractions by whole numbers [for example, + 2 =

I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

I can use negative numbers in context, and calculate intervals across zero

I can divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context

I can associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example,]

I can solve problems which require answers to be rounded to specified degrees of accuracy

I can solve problems involving addition, subtraction, multiplication and division

I can round any whole number to a required degree of accuracy

I can perform mental calculations, including with mixed operations and large numbers

I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

I can identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

I can use written division methods in cases where the answer has up to two decimal places

I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit

I can identify common factors, common multiples and prime numbers

I can use their knowledge of the order of operations to carry out calculations involving the four operations

I can multiply one-digit numbers with up to two decimal places by whole numbers

Name _____

I can statements!
Pathway One

- ❖ I can say a sentence before I write it.
- ❖ I can sit correctly, holding a pencil comfortably.
- ❖ I can write simple sentences which make sense.
- ❖ I can re-read what I have written to check it makes sense.
- ❖ I can use full stops.
- ❖ I can use question and exclamation marks correctly.
- ❖ I can use capital letters at the start of sentences.
- ❖ I can use capital letters for names, people, places, the days of the week and 'I'.
- ❖ I can use 'and' to join sentences and ideas.
- ❖ I can use my sounds to help me spell words.
- ❖ I can use finger spaces between my words.
- ❖ I can spell high frequency words correctly.
- ❖ I can write my letters neatly.

a b c d e f g h i j k l m n o p q r s t u v w x y z

Barnfield
Setting the standard
Vale Academy

My Maths Stepping Stone Target

I can...

Autumn 1

I can...

I can...

I can...

I can...

I can...

My Literacy Stepping Stone Target