# Record of Attainment - Maths

(Assessment tools to support the assessment process are noted in brackets)

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| **Pupil Name:**  | **Year Group:**  | **Age:** |
| **Assessor:** | **Role:** | **Date:** |
|  |  |
| **Colour coding:** | **PKSS 1** | **PKSS 2** | **PKSS 3** | **PKSS 4** | **PKSS 5(Y1)** | **PKSS 6 (Y2)** | **NCY3** | **NCY4** |
|  |  |  |  |  |  |  |
| **Key:** | **x** | no |  | **x√** | emerging |  | **√** | secure |

 **(Assessment Tool 1)**

| **Number**  | **PKSS** | **x** | **x√** | **√** | **Date Achieved** |
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| Distinguish between ‘one’ and ‘lots’, when shown an example of a single object and a group of objects | **PKSS1** |  |  |  |  |
| Demonstrate an understanding of the concept of 1:1 correspondence | **PKSS1** |  |  |  |  |
| Say the number names to 5 in the correct order (e.g. in a song or by joining in with the teacher) | **PKSS2** |  |  |  |  |
| Demonstrate an understanding of the concept of numbers up to 5 by putting together the right number of objects when asked | **PKSS2** |  |  |  |  |
| Copy and continue simple patterns using real-life materials (e.g. apple, orange, apple, orange, etc.) | **PKSS2** |  |  |  |  |
| Identify how many objects there are in a group of up to 10 objects, recognising smaller groups on sight and counting the objects in larger groups up to 10 | **PKSS3** |  |  |  |  |
| Demonstrate an understanding that the last number counted represents the total number of the count | **PKSS3** |  |  |  |  |
| Copy and continue more advanced patterns using real-life materials (e.g. apple, apple, orange, apple, apple, orange, etc.) | **PKSS3** |  |  |  |  |
| Use real-life materials (e.g. apples or crayons) to add and subtract 1 from a group of objects and indicate how many are now present | **PKSS3** |  |  |  |  |
| Read and write numbers in numerals from 0-9 | **PKSS4** |  |  |  |  |
| Demonstrate an understanding of the mathematical symbols of add, subtract and equal to | **PKSS4** |  |  |  |  |
| Solve number problems involving the addition and subtraction of single digit numbers up to 10 | **PKSS4** |  |  |  |  |
| Demonstrate an understanding of the composition of numbers to 5 and a developing ability to recall number bonds to and within 5 (e.g. 2+2=4 and 3+1=4) | **PKSS4** |  |  |  |  |
| Demonstrate an understanding of the commutative law (e.g. 3+2=5, therefore 2+3 =5) | **PKSS4** |  |  |  |  |
| Demonstrates an understanding of inverse relationships involving addition and subtraction (e.g. if 3+2=5, then 5-2=3) | **PKSS4** |  |  |  |  |
| Demonstrates an understanding that the number of objects changes when objects are added or taken away | **PKSS4** |  |  |  |  |
| Demonstrate an understanding that the number of objects remains the same when they are rearranged, providing nothing has been added or taken away | **PKSS4** |  |  |  |  |
| Count to 20, demonstrating that the next number in the count is one more and the previous number is one less | **PKSS4** |  |  |  |  |
| Read and write numbers in numerals up to 100 | **PKSS5** |  |  |  |  |
| Partition a two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources to support them | **PKSS5** |  |  |  |  |
| Add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required, explaining their method verbally, in pictures or using apparatus (e.g. 23 + 5; 46 + 20; 16 –5; 88 – 30) | **PKSS5** |  |  |  |  |
| Recall at least four of the six number bonds for 10 and reason about associated facts (e.g. 6 + 4 = 10, therefore 4 + 6 = 10 and 10 – 6 = 4) | **PKSS5** |  |  |  |  |
| Count in twos, fives and tens from 0 and use this to solve problems | **PKSS5** |  |  |  |  |
| Read scales in divisions of ones, twos fives and tens | **PKSS6** |  |  |  |  |
| Partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus | **PKSS6** |  |  |  |  |
| Add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. 48+35; 72-17) | **PKSS6** |  |  |  |  |
| Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships. | **PKSS6** |  |  |  |  |
| Recall multiplication and division facts for 2, 5, and 10 use them to solve simple problems, demonstrating an understanding of commutativity as necessary. | **PKSS6** |  |  |  |  |
| Identify ¼, 1/3, ½, 2/4, 3/4 of number or shape, and know that all parts must be equal parts of the whole | **PKSS6** |  |  |  |  |
| **(Assessment Tool 6)** |
| Count from 0 in multiples of 4, 8, 50 and 100  | **NCY3** |  |  |  |  |
| Find 10 or 100 more or less than a given number | **NCY3** |  |  |  |  |
| Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) | **NCY3** |  |  |  |  |
| Compare and order numbers up to 1,000 | **NCY3** |  |  |  |  |
| Read and write numbers up to 1,000 in numerals and in words | **NCY3** |  |  |  |  |
| Identify, represent and estimate numbers using different representations | **NCY3** |  |  |  |  |
| Add and subtract numbers mentally, including:* + a three-digit number and 1s
	+ a three-digit number and 10s
	+ a three-digit number and 100s
 | **NCY3** |  |  |  |  |
| Add and subtract numbers with up to 3 digits, using formal written methods of column addition and subtraction. | **NCY3** |  |  |  |  |
| Estimate the answer to a calculation and use inverse operations to check answers. | **NCY3** |  |  |  |  |
| Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. | **NCY3** |  |  |  |  |
| Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | **NCY3** |  |  |  |  |
| Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods | **NCY3** |  |  |  |  |
| Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects | **NCY3** |  |  |  |  |
| 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. | **NCY3** |  |  |  |  |
| Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. | **NCY3** |  |  |  |  |
| Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. | **NCY3** |  |  |  |  |
| Recognise and show, using diagrams, equivalent fractions with small denominators. | **NCY3** |  |  |  |  |
| Add and subtract fractions with the same denominator within one whole, for example,$ \frac{5}{7}$ + $\frac{1}{7}$ =$\frac{6}{7}$. | **NCY3** |  |  |  |  |
| Compare and order unit fractions, and fractions with the same denominators. | **NCY3** |  |  |  |  |
| Count in multiples of 6, 7, 9, 25 and 1,000 | **NCY4** |  |  |  |  |
| Find 1,000 more or less than a given number | **NCY4** |  |  |  |  |
| Count backwards through 0 to include negative numbers | **NCY4** |  |  |  |  |
| Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) | **NCY4** |  |  |  |  |
| Order and compare numbers beyond 1,000 | **NCY4** |  |  |  |  |
| Round any number to the nearest 10, 100 or 1,000Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value | **NCY4** |  |  |  |  |
| Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. | **NCY4** |  |  |  |  |
| Estimate and use inverse operations to check answers to a calculation. | **NCY4** |  |  |  |  |
| Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. | **NCY4** |  |  |  |  |
| Recall multiplication and division facts for multiplication tables up to 12 × 12. | **NCY4** |  |  |  |  |
| Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers. | **NCY4** |  |  |  |  |
| Recognise and use factor pairs and commutativity in mental calculations. | **NCY4** |  |  |  |  |
| Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. | **NCY4** |  |  |  |  |
| Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | **NCY4** |  |  |  |  |
| Recognise and show, using diagrams, families of common equivalent fractions. | **NCY4** |  |  |  |  |
| Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10. | **NCY4** |  |  |  |  |
| Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. | **NCY4** |  |  |  |  |
| Add and subtract fractions with the same denominator. | **NCY4** |  |  |  |  |
| Recognise and write decimal equivalents of any number of tenths or hundreds | **NCY4** |  |  |  |  |
| Recognise and write decimal equivalents to $\frac{1}{4} \frac{1}{2} $ $\frac{3}{4} $ . | **NCY4** |  |  |  |  |
| Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. | **NCY4** |  |  |  |  |
| Round decimals with 1 decimal place to the nearest whole number | **NCY4** |  |  |  |  |
| Compare numbers with the same number of decimal places up to 2 decimal places | **NCY4** |  |  |  |  |
| Solve simple measure and money problems involving fractions and decimals to 2 decimal places. | **NCY4** |  |  |  |  |

**(Assessment Tool 2)**

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| **Measurement -Time** | **PKSS** | **x** | **x√** | **√** | **Date Achieved** |
| Use vocabulary such as ‘before', ‘after', ‘next’ and times of the day e.g. afternoon, lunchtime, home time. \* | **PKSS1** |  |  |  |  |
| Show awareness of time, through some familiarity with names of the days of the week and significant times in their day, such as meal times, bed times [for example, ordering events in their day on a visual daily timetable, understanding and using names of days of the week, ‘no school on Saturday or Sunday, swimming on Wednesday’] \* | **PKSS3** |  |  |  |  |
| Join in saying the days of the week, know some of the days’ names | **PKSS4** |  |  |  |  |
| Aware of the use of a clock and tell the time to the hour (analogue clock) | **PKSS4** |  |  |  |  |
| Know in order the days of the week and months of the year | **PKSS5** |  |  |  |  |
| Tell the time to the hour and half hour and draw hands on clock face | **Y1** |  |  |  |  |
| Read the time on a clock to the nearest 15 minutes and know quarter past and quarter to the hour | **PKSS6** |  |  |  |  |
| Read hours and half hours on a digital clock | **Y2** |  |  |  |  |
| **\***Please note that these are not taken from the PKSS document, however they are a natural progression to the other standards in this area of maths.**(Assessment Tool 3)** |
| **Measurement - Money** | **PKSS** | **x** | **x√** | **√** | **Date Achieved** |
| Demonstrate an understanding of the concept of transaction (e.g. by exchanging a coin for an item) | **PKSS1** |  |  |  |  |
| Recognise the different denominations of coins | **PKSS5** |  |  |  |  |
| Recognise symbol for pence (p) and for £ | **PKSS6** |  |  |  |  |
| Use different coins to make the same amount | **PKSS6** |  |  |  |  |
| Use different coins to give change from 10p and 20p | **PKSS6** |  |  |  |  |
| **(Assessment Tool 4)** |
| **Measurement - Length, Weight, Capacity** | **PKSS** | **x** | **x√** | **√** | **Date Achieved** |
| Use vocabulary such as ‘big’, ’small’ ‘tall’, ‘long’, ‘short’, ‘heavy’, ‘light’, ‘wide’, ’narrow’ | **PKSS1** |  |  |  |  |
| Find big and small objects on request [for example, from a choice of two objects, identifying the ‘big’ and ‘small’] | **PKSS1** |  |  |  |  |
| Order two/three items by length or height | **PKSS4** |  |  |  |  |
| Put 3 objects in order of their weight | **PKSS4** |  |  |  |  |
| Order two items by capacity, estimate which container holds the greater volume | **PKSS4** |  |  |  |  |
| Aware of hot and cold – can name some hot and cold objects | **PKSS4** |  |  |  |  |
| Measure and begin to record  | **PKSS5****(Y1)** |  |  |  |  |
| Begin to use a ruler and draw lines along a straight edge | **PKSS5** |  |  |  |  |
| Use terms: full, empty, holds, more/less than, half full | **PKSS5** |  |  |  |  |
| 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  | **PKSS6****(Y2)** |  |  |  |  |
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| measuring scales  |  |  |  |  |
| thermometers |  |  |  |  |
| measuring vessels (capacity) |  |  |  |  |

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| **(Assessment Tool 5)** |
| **Geometry - Properties of Shape** | **PKSS** | **x** | **x√** | **√** | **Date Achieved** |
| Sort 3 colours e.g. red, yellow, green bricks | **PKSS1** |  |  |  |  |
| Sort objects according to a stated characteristic (e.g. group all the small balls together, sort the shapes into triangles and circles). | **PKSS2** |  |  |  |  |
| Find some shapes in a picture\* | **PKSS3** |  |  |  |  |
| Recognise some common 2-D shapes and find them when asked | **PKSS4** |  |  |  |  |
| Sort different objects by size and shape | **PKSS4** |  |  |  |  |
| Name some common 2-D and 3-D shapes from groups or pictures of the shapes (e.g. triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres). | **PKSS5** |  |  |  |  |
| Describe shapes by the numbers of faces, edges and corners | **PKSS5** |  |  |  |  |
| Name and describe properties of 2D and 3D shapes, including number of sides, vertices edges, faces and lines of symmetry | **PKSS6** |  |  |  |  |
| Sort and compares common 2D and 3D shapes | **PKSS6** |  |  |  |  |
| Identify right angles in 2D shapes | **PKSS6** |  |  |  |  |

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