Maths: Assessment and Essential Building Blocks

Children are assessed within lessons on a daily basis. Frequent opportunities are built into lessons to assess children's retention of previous objectives taught to ensure that the objectives are securely achieved (the daily number skills sessions are ideal opportunities for this assessment.)

Progress through objectives are recorded on data sheets termly. Analysis of this data is completed shortly after each data point and used to inform teaching and learning.

Evidence for assessment could also include:
- Children's work
- Marking codes and annotations
- Teacher/TA observation notes
- Photographs with annotations
- Audio recordings
- End of unit tasks

Essential Building Blocks

Knowledge of number facts and a fluency in using them is a vital part of Maths for each year group. Rapid recall of number facts can provide the basic knowledge required for most aspects of primary mathematics, including mental and written calculations, fractions, decimals and percentages and problem solving. Number facts learned in Maths can also be transferred to many other subjects across the curriculum and in 'real life' situations.

Year	Essential Building Blocks
EYFS	• Count reliably with numbers from 1 to 10 • Write numbers from 0-9 with correct formation • Recognise numbers 1-10 and place numbers in order • Say which number is one more or one less than a given number to 10 Count to over 100
1	• Count to and across 100, forwards and backwards from any number • Count on and back in 1s, 2s, 5s and 10s • Can double up to 10 + 10 • Read, write & order numbers from 0 to at least 100 • Say what is one more & one less than a given number to 100 • Add & subtract two numbers using the correct symbols within 20 • Know addition and subtraction facts to 20 & use bonds to at least 20
2	• Count to over 100 • Explain value of digits (to 3 digits)

	• Read, write & order numbers up to 100 • Count on and back in twos, threes & tens from any number • Know addition and subtraction facts to 20 & use all bonds to 10 • Know all number pairs to 100 using 'ten' numbers • Can double all numbers up to 10 and halve all even numbers up to 20 • Know x2, x5 and x10 and division facts
3	• Read, write and order numbers to 1000 and know value the of each digit • Count from 0 in multiples of 4, 8, 50 and 100 • Find 10 or 100 more or less than a given number • Know addition & subtraction facts to 20 • Add and subtract mentally up to 3-digit numbers • Add and subtract one digit and two-digit numbers using the column method • Know x2, x3, x4, x5, x8 and x10 (and division facts) • Do simple divisions, e.g., 27 divided by 5 • Find simple fractions, e.g., 1/2, 1/3, 1/4, 1/5, 1/10 of shapes & amounts • Count up and down in tenths • Use £. p and know value of amounts
4	• Read, write and order numbers to 10,000, and know value of each digit • Count in multiples of 6, 7, 9, 25 and 1000 • Count up and down in tenths and hundredths • Know all times tables to 12x12 (and division facts). New multiplication and division facts in Y4 are x6 x7 x9 x11 and x12 • Round numbers (up to 3 digits) to nearest 10, 100 or 1000 • Add and subtract mentally pairs of two-digit numbers • Multiply and divide 2-digit numbers by 10 or 100 • Divide (up to 4 digits) numbers by 10 or 100 • Multiply and divide numbers up to 100 by 2, 3, 4 or 5 and find remainders • Identify pairs of fractions that total 1 and equivalent fractions • Solve problems including fractions and decimals to 2.d.p
5	• Read, write and order numbers to 3dp; know value of each digit up to 1,000,000 • Multiply & divide positive integers up to 1,000,000 by powers of 10 • Order sets of positive and negative integers • Round numbers up to 1 000 000 to the nearest 10, 100, 1000, 10 000, 100 000 • Add and subtract whole numbers with more than 4 digits using formal column methods • Multiply numbers up to 4 digits by one- or two-digit numbers using formal written method • Divide numbers up to 4 digits by a one-digit number using formal method of short division. • Mentally add and subtract increasingly large numbers

	• Know all multiplication facts to 12x12 (& division facts) • Identify multiples and factor pairs of a number and identify common factors of 2 numbers • Find equivalent fractions • Recognise mixed numbers and improper fractions and convert from one form to the other.
6	• Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • Round any whole number to a required degree • Multiply numbers up to 4 digits by one- or two-digit numbers using formal written method • Divide numbers up to 4 digits by a one- or two-digits number using formal method of short division and long division and record the remainder as appropriate. • Use knowledge of order of operations to carry out calculations involving four operations. • Add, subtract, multiply and divide fractions • Use common factors to simplify fractions • Multiply or divide numbers by 10, 100, 1000 giving answers up to 3 decimal places. • Find a percentage of a given number.