Howbridge Church of England Junior School

Progression in number facts and mental calculations

	KS1 Skills		Year 3	Year 4	Year 5	Year 6
	Stage 1	**Stage 2**				
Number facts	Number bonds to 10 and 20 and related subtraction facts. Adding and subtracting zero.	Addition and subtraction facts to 20 to derive facts to 100 (eg, 7+3=10 so 70+30 =100, 100-70=30 etc) Add/subtract a 2-digit no & 1s; 2-digit no & 10s; 2-digit no & 100s. *(By end of Year 2 handle numbers up to 100)*	Add and subtract 3 digit no & 1s; 3 digit no & 10s; 3 digit no and 100s *(Year 3 handle numbers up to 1000)*	Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying 3 numbers together Add and subtract increasingly large numbers *(Year 4 handle numbers beyond 1000)*	Recall prime numbers up to 19 Increasingly large numbers eg, 12,462-2300 = 10,162 Add and subtract increasingly large numbers *(Year 5 handle numbers up to 1,000,000!)*	Perform mental calculations, including with mixed operations and large numbers Understand mental calculations with increasingly large numbers and more complex calculations *(Year 6 handle numbers up to 10,000,000!)*

	KS1 Skills		Year 3	Year 4	Year 5	Year 6
	Stage 1	**Stage 2**				
Counting	To and across 100, forwards and backwards, from 0 or 1 Count in 2s, 5s, 10s	In steps of 2, 3 and 5 from 0 Recognise odd and even nos	From 0 in multiples of 4, 8, 50 and 100	In multiples of 6, 7, 9, 25 and 1,000 Backwards through 0 to include negative numbers	Forwards or backwards in steps of powers of 10 for any given number up to 1,000,000	
Multiplication and related division facts	Doubles and halves of numbers within 10	2, 5 and 10x tables Doubles and halves of numbers bridging 10	3, 4 and 8x tables Use doubling to connect 2x, 4x and 8x tables	Multiplication tables up to 12x12 (therefore, the remaining 6x 7x, 9x, 11x, 12x facts) Extend to 3-digit nos to derive facts, eg 600÷3=200 – derived from 2x3=6)	Multiply and divide drawing upon known facts Apply all multiplication tables and related division facts frequently, commit them to memory and use them confidently to make larger calculations	Use all multiplication tables to calculate mathematical statements Recall and use equivalences between simple fractions, decimals and percentages

John Harlow.

With Support from NCTEM, Matrix Hub and the National Curriculum