Brushwood Junior School

Arithmetic Progression Map

<table>
<tr><th colspan="2">Lower Key Stage 2</th></tr>
<tr><td>Year 3
Counting/place value
Recall number bonds to 100.
Randomly recall the 1, 2, 3, 4, 5, 8 and 10x tables.
Count from 0 in multiples of 4 and 8.
Count from 0 in multiples of 50 and 100.
Count forward and backwards in 10s and 100s from any number.
Compare and order numbers up to 100.
Recognise the place value of each digit in 3 digit numbers.
*This understanding should also be applied to number sums.</td><td>Year 4
Counting/place value
Count from 0 in multiples of 10, 25, 50, 100 and 1000.
Count forwards and backwards in 100 from any number.
Random recall of all times tables.
Count backwards through zero to include negative numbers.
*This understanding should also be applied to number sums.</td></tr>
<tr><td>4 operations
To be able to double and half up to 3 digit numbers.
To apply place value knowledge to known additive and multiplicative number facts.
To be able to add and subtract up to 3 digit numbers.
To understand the inverse relationship between addition and subtraction.
To be able to solve missing number problems involving addition and subtraction.</td><td>4 operations
To be able to add any 2-digit number by partitioning or counting on.
To be able to add and subtract up to 4 digit numbers.
To be able to multiply and divide whole numbers by 10 and 100.
To be able to multiply a 2 or 3 digits by 1 digit.
To solve division problems, involving remainders.
To be able to solve missing number problems involving addition and subtraction. For example, using function machines.</td></tr>
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Upper Key Stage 2

Year 5

Counting/place value

- To secure fluency in multiplication table facts and corresponding division facts.
- Count forward or backwards in steps of powers of 10 for any given numbers up to 1million.
- Count up in tenths, hundredths and thousandths.
- To apply place-value knowledge to known additive and multiplicative number facts.

*This understanding should also be applied to number sums.

4 operations

- To be able to double and half numbers.
- To understand square and cube numbers.
- To apply place value knowledge to known additive and multiplicative number facts.
- To add and subtract up to 5 digit numbers.
- To be able to solve missing number problems involving addition and subtraction.
- To multiply and divide whole numbers by 10, 100 and 1000.
- To multiply and divide any whole number with up to 4 digits by any one-digit number.

Year 6

Counting/place value

- To secure fluency in multiplication table facts, and corresponding division facts, through continued practice.
- To understand place value of numbers up to 10 million.
- Multiplying and dividing by powers of 10.
- To be able to order and compare decimals.

*This understanding should also be applied to number sums.

4 operations

- To understand prime numbers.
- To apply place value knowledge to known additive and multiplicative number facts.
- To be able to add and subtract up to 5 digit numbers.
- To understand the inverse relationship between addition and subtraction.
- To solve missing number problems involving addition and subtraction.
- To understand and apply the commutative property of multiplication.
- Multiply and divide whole numbers by 10, 100 and 1000
- Long multiplication