**Alder Brook Stage 2 Progression Map**

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| **Domain** | **National Curriculum attainment target** |
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| **Number –Number and place value** | Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward |
| Recognise the place value of each digit in a two-digit number (tens, ones) |
| Identify, represent and estimate numbers using different representations, including the number line |
| Compare and order numbers from 0 up to 100; use <, > and = signs |
| Read and write numbers to at least 100 in numerals and in words |
| Use place value and number facts to solve problems |
| **Number –Addition and subtraction** | Solve problems with addition and subtraction:* using concrete objects and pictorial representations, including those involving numbers, quantities and measures
* applying their increasing knowledge of mental and written methods
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| Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 |
| Add and subtract numbers using concrete objects, pictorial representations and mentally, including:* a two-digit number and ones
* a two-digit number and tens
* two two-digit numbers
* adding three one-digit numbers
 |
| Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot |
| Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems |
| **Number –****Multiplication and division** | Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers |
| Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs |
| Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot |
| Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts |
| **Number –Fractions** | Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity |
| Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ |
| **Measurement** | 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, scales, thermometers and measuring vessels |
| Compare and order lengths, mass, volume/capacity and record the results using >, < and = |
| Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value |
| Find different combinations of coins that equal the same amounts of money |
| Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change |
| Compare and sequence intervals of time |
| 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 |
| Know the number of minutes in an hour and the number of hours in a day |
| **Geometry –Properties of shapes** | Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line |
| Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces |
| Identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid] |
| Compare and sort common 2-D and 3-D shapes and everyday objects |
| **Geometry –Position anddirection** | Order and arrange combinations of mathematical objects in patterns and sequences |
| Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) |
| Understand what algorithms are; how they are implemented as programs on Beebots. That technology will follow unambiguous instructions.  |
| Create and debug simple programs using Beebots.  |
| Use logical reasoning and vocabulary to describe the path/route of a Beebot  |
| **Statistics** | Interpret and construct simple pictograms, tally charts, block diagrams and simple tables |
| Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity |
| Ask and answer questions about totalling and comparing categorical data |