The Maths Curriculum at Bernards Heath Infant School

During Year 1 we teach skills and knowledge in Maths to prepare the children for lifelong learning, to achieve economic wellbeing and to enable them to make a positive contribution as an adult. Every child is taught to challenge themselves in order to succeed. The challenges in each lesson are presented to children allowing them to choose learning that grows their brain. Teachers and teaching assistants support children and carefully monitor the choices they make throughout each lesson. Our belief in establishing a 'Growth Mindset' is embedded in every classroom. The information below outlines the expectations for key skills and knowledge as well as the context including the experiences children have to acquire these. The National Curriculum has a focus on making sure that the children are explicitly taught basic principles and that they have a broad and balanced curriculum with plenty of opportunities to apply what they have learnt.

Subject: Maths	
The Year 1 Learner	Context – What this looks like in the classroom:
Working mathematically By the end of Year 1, children begin to solve simple problems involving addition and subtraction in familiar contexts such as going shopping and by using a range of hands-on equipment, symbols, images and pictures. They begin to use what they know to tackle problems that are more complex and provide simple reasons for their opinions.	Examples of problems Year 1 children will encounter include "3 divers were swimming under water and 1 more came along, how many divers altogether?" "I found three 2p's, a 5p and a 10p. How much money have I found?" Some of the equipment children use to solve problems: number cards and number lines, coins, counters and cubes. Children are encouraged to draw pictures to help them find the answer e.g. drawing the 3 divers and then 1 more.
Number **Counting and understanding numbers** Children will identify and represent numbers using objects, pictures and models, such as the number line, and use 'equal to', 'more than', 'less than' (fewer), 'most' and 'least.' Children will accurately count from 1 to 100 and then across the 100 boundary e.g. 74 to 104. Speed and fluency increase with understanding of the pattern of counting e.g. 30, 31, 32... 40, 41, 42... 50, 51, 52. They count, read, write and order numbers in numerals up to 100 and from 1 to 20 in words. When given a number, they can identify one more and one less. They can count in multiples of twos, fives and tens.	In Year 1 we frequently practise counting on and back in different multiples e.g. marching and counting in 10's, counting to 100, counting our feet in 2's. When learning how to order numbers to 100 we look at number lines and 100 squares. We use blank 100 squares and work out "Where would all the multiples of 10 go?" Children would work out the position of 10, 20, 30 and so on, learning the sequence and the pattern.

Calculating Children will understand addition and subtraction facts for different numbers e.g. all the addition and subtraction sentences for 5: 1+4, 2+3, 3+2, 4+1 within 20, including zero. They will demonstrate an understanding of multiplication and division through grouping and sharing using hands-on resources, pictorial representations and arrays (where objects or pictures are arranged in rows and columns).They understand doubling and halving small quantities. **Fractions** Through play and hands-on resources, children will find and name half and one quarter of objects, shapes and quantities. **Measurement** Children will begin to measure using non-standard units (finger widths, blocks etc.) moving to standard units of measure (e.g. cm) using tools such as a ruler, weighing scales and containers. They will begin to record and compare measurements such as lengths and heights, mass and weight, capacity and volume using language such as long / short; heavy / light; full / half-full / empty. They will tell the time to the hour, half past the hour and be able to sequence events in chronological order using precise language (for example, before and after, next, first, today etc.). Children will recognise and know the value of different denominations of coins and notes.	To learn more about how we teach Calculation see our Calculation Policy. Resources used to teach fractions include clocks, games and iPad apps. Children need to be secure with fractions of shape and objects before they can progress to fractions of quantities/numbers. In the classroom children will have opportunities to: pour water for a group of friends, making sure each cup is half full. Make a play-dough pizza and cut it into halves and quarters. Fold paper shapes into halves and quarters. Colour half of a square in blue and half in red. Share the segments of their satsuma between 2 and 4 friends, does it share equally? Exploring different methods and solving problems involving measure. How many LEGO bricks long is your shoe? How many cubes tall is your teacher? Now try using blocks. Could you use a metre stick? How? Investigate juice cartons and yoghurt pots. How many ml of liquid is in each container? Which container holds the most liquid? Order your day at school. What happens first? What time is lunchtime? Find me all the coins worth more than 5p. Make 27p in 3 different ways.

Geometry Children will recognise and name common 2-D shapes, e.g. rectangles (including squares), circles and triangles, and 3-D shapes, e.g. cuboids (including cubes, pyramids and spheres) in different orientations and sizes. They will describe position, direction and movement, including whole, half and three quarter turns.	Shape walks around school. Find shape and pattern in our environment – look at the windows, bricks and tiles. What can you see? Make a shape picture e.g. a house. Label all the shapes you have used. Sort shapes into categories such as all 4 sided shapes together, shapes with curved sides. Program the BeeBots (programmable robots) through a maze, working out which route to take. Working with a partner, one person wears a blindfold whilst the other directs them "4 steps forwards, half turn".
Statistics In preparation for Year 2, children will begin to compare, sort and classify information, including through cross curricular links e.g. science – sorting materials into groups according to their properties. They will also begin to construct simple pictograms and tables.	Looking at a line of pebbles and a line of sticks, which group has the most? How many more pebbles than sticks are there? Now let's collect some leaves. What do you notice? Draw a picture to show the information you have gathered. Create a bar graph to show the number of sticks, pebbles and leaves collected on the field today. Compare your graph with your partners. What have you found out?