Helping your child with maths

Year 2

At the heart of the teaching of maths at Drayton Community Infant School are the 3 aims of the National Curriculum:

- **Fluency** – varied and frequent practise of the fundamentals of maths, developing conceptual understanding and being able to recall and apply knowledge rapidly and accurately.
- **Reasoning** – following lines of enquiry, recognising relationships and generalising, developing arguments, explaining workings out and justifying and proving using mathematical language.
- **Problem solving** – applying maths to a variety of problems, including word problems and those in the context of real life, using systems and finding all possibilities.

Calculation policy

Please see the school's calculation policies on addition, subtraction, multiplication and division for further information on how these concepts are taught:

www.draytoninfantschool.org.uk

Year 2 programme of study

- 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)
- 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
- solve problems with addition and subtraction
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100, add and subtract numbers, including: a two-digit number and ones, a two-digit number and tens, two two-digit numbers and adding three one-digit numbers
- 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
- recognise, find, name and write fractions 1/3 ¼ 2/4 and 3/4 of a length, shape, set of objects or quantity, write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of 2/4 and 1/2.
- 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, 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
- 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.
- identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line, and of 3-D shapes, including the number of edges, vertices and faces, identify 2-D shapes on the surface of 3-D shapes, compare and sort common 2-D and 3-D shapes and everyday objects.
- order and arrange combinations of mathematical objects in patterns and sequences, use mathematical vocabulary to describe position, direction and movement.
- 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

Useful maths websites

http://mathszone.co.uk

http://www.topmarks.co.uk/maths-games

http://www.bbc.co.uk/bitesize/ks1/maths

http://www.snappymaths.com

http://www.ictgames.com

http://www.educationcity.com/uk/families/free-trial

http://www.coolmath-games.com

http://nrich.maths.org/primary-lower

http://www.activityvillage.co.uk/dice-games

http://www.mathschamps.co.uk/games5-7

- Please ensure you have appropriate security settings on your device as websites may have pop-ups.

The CPA approach

Concrete – give your child objects to help them count and calculate. Use real-life objects in context to make the learning more meaningful. Using concrete objects helps children to visualise.

Pictorial – your child may wish to draw pictures to help them. This could simply be drawing dots in groups to aid multiplication or division, for example.

Abstract – Children move to being able to calculate in their heads. They may choose to write their working out, or use empty number lines. Ask your child to talk about their mental working out: "Tell me how you reached your answer", "convince me your answer is correct", "show me how I could work that out like you".

Take turns to count in 2s, 5s 10s or 3s, as far as you can go. The person who says the final number is the winner.

Practise bouncing or throwing a ball to each other. Counting in 2s, 5s 10s or 3s. Say a number each time you catch the ball. What is the highest number you can get to? Can you do this backwards‹

Use 2 sets of number cards numbered 0-20. Play games such as pairs or snap. Win the pair if they are doubles, or if they total 20, or if they are both even, for example.

In the house or when you are out play shape hunts. How many different shapes can you find? Are they 2D or 3D? Describe a shape you can see for your child to guess.

In real and play situations use objects and toys to practise counting, adding, subtracting, multiplying, doubling and halving.

When cooking together, help your child to measure liquid in millilitres and weigh dry ingredients in grams.

Talk about the days of the week and months of the year. Ask questions such as what day was yesterday?, what day will it be in 2 more days?, what month will it be after this one?

Encourage your child to look at the clock (analogue and digital) during specific times of the day eg lunchtime or bedtime.

Make obstacle or orienteering courses or treasure hunts and direct each other through them, for example go over, make a half turn clockwise.

Make maths fun!