Dilton Marsh
Church of England
Primary School

Learning together.
Growing together.

Some Year 4
Key Skills To Help Your
Child With Maths

<u>Introduction</u>

At Dilton Marsh Church of England Primary School we follow the new mathematics curriculum. In addition to knowing and applying basic mathematics skills, students are required to reason, think independently, solve problems using different strategies, and effectively communicate their methods. Parents help at home is essential in helping children develop and strengthen these skills.

Here are some suggestions for parents helping at home:
- Let your children know you believe they can be successful in math.
- Encourage and support risk taking and celebrate perseverance.
- Encourage your children to solve problems with you.
- Help them identify different methods or strategies to use in finding solutions and resist the temptation to provide the answer or method. There is usually more than one way to solve a problem, and simpler strategies are often effective.
- Provide opportunities for your children to explain and justify their thinking.
- Connect mathematics to real life experiences. Emphasising the mathematics around us helps to make mathematics education relevant.
- Ask good questions of your children about their homework and be good listeners when your children respond.
- Encourage children to estimate answers before working out the answer.

Good questions, and equally important, good listening can help children make sense of mathematics, build their confidence, and encourage mathematical thinking and communication. A good question opens up a problem and supports different ways of thinking about it. Some questions to try while helping a child might include:
- What do you already know about this?
- What do you need to find out?
- How might you begin?
- How can you organise your information?
- Can you draw a picture to explain your thinking?
- Are there other possibilities?
- What would happen if ...?
- What do you need to do next?

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- Tell and write the time from 12-hour and 24-hour clocks
- Dividing numbers or quantities by 10
- Using Roman numerals from I to XII

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- Counting up and down in tenths
- Money Decimals
- Converting between units of measure
- Negative Numbers
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<u>Step 1</u>

Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, ones):

Place Value Chart for 4 digit Numbers			
Thousands	Hundreds	Tens	Ones
1	4	8	9

Remember each time you move column the number becomes 10 times bigger.

Count from 0 in multiples of 6, 7, 9 and 25:

Children in Year Four need to be confident to count on in groups of 6, 7, 9 and 25. Use games, counting sticks, hoops or anything else you can think of to help them learn this skill.

Write simple fractions for example, 1⁄2 of 6 = 3:

Have even numbers of objects.

Discuss the idea you share them between 2 when halving.

The children can repeat activity with any even number

Recognise the equivalence of 2⁄4 and 1⁄2:

Use cakes/pizza's. Cut them into halves.

Then into quarters. Look at how 2/4 is equal to ½ in size.

You could look at sharing counters into 2, and then into 4.

How many of the piles (when split into 4 groups) have the same number of counters as

Addition:

Children must be able to add using the column method:

123
+ 459
2

Add the right-hand column of digits. If the sum is bigger than ten, then carry that digit to the next colum to the left -- that digit will be added to the next column.

123
+ 459
82

Add the next column of digits (moving left). Make sure to add the carry (if there was one).

123
+ 459
582

Add the next column of digits (moving left).

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Subtraction:

Using the same column method children should be able to subtract to two given numbers.

654
− 368
6

Subtract the right-hand column of digits. If the top digit (part of the minuend) is smaller than the digit you are subtracting (in the subtrahend), you will have to "borrow" ten from the digit to the left, decreasing that digit by one.

654
− 368
86

Subtract the next column of digits (moving left). If the top digit (part of the minuend) is smaller than the digit you are subtracting (in the subtrahend), you will have to "borrow" ten from the digit to the left, decreasing that digit by one.

654
− 368
286

Subtract the next column of digits (moving left).

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Step 2

Tell and write the time from 12-hour and 24-hour clocks:

Activity	Monday	Tuesday	Wednesday	Thursday	Friday
Wake up	**7.35 am**				
Brush teeth					
Leave for school					

Key words: AM, PM, analogue, quarter to, quarter past, minute, hour, second, midday, midnight, morning, afternoon
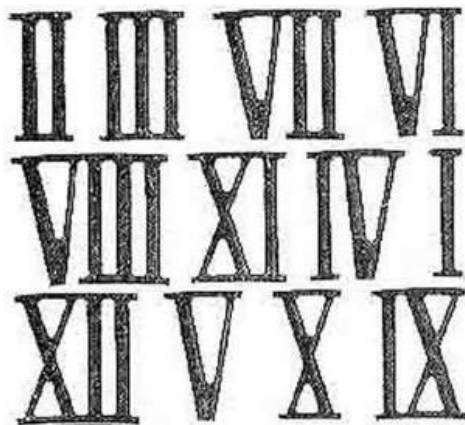
Divide numbers or quantities by 10:

Th	H	T	U	. Tths	Thths
		3	2	.	

10 ÷ →

Th	H	T	U	. Tths	Thths
			3	. 2	

32 ÷ 10 =

Use Roman numerals from I to XII:

II III VII VI
VIII XI IV I
XII V X IX

<u>Step 3</u>

Count up and down in tenths:

7.9 + 0.1 = 8.0, NOT 7.10
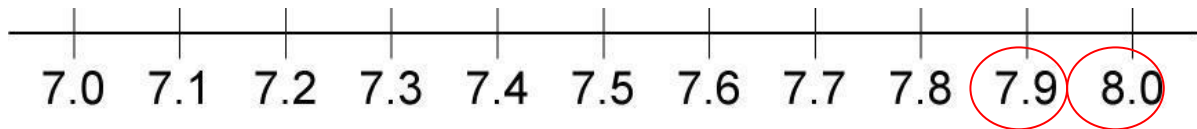
When counting up in tenths, it's important for your child to understand that 10 tenths is the same as 1, so after reaching 9 tenths, the next tenth added will create another whole, therefore the unit number will increase by 1.

Money Decimals:

Children need to be able to recognise and understand pounds and pence. For example: £2.34. They need to know that the 2 represents £2.00, the 0.30 is 30 pence and 0.04 is 4 pence.
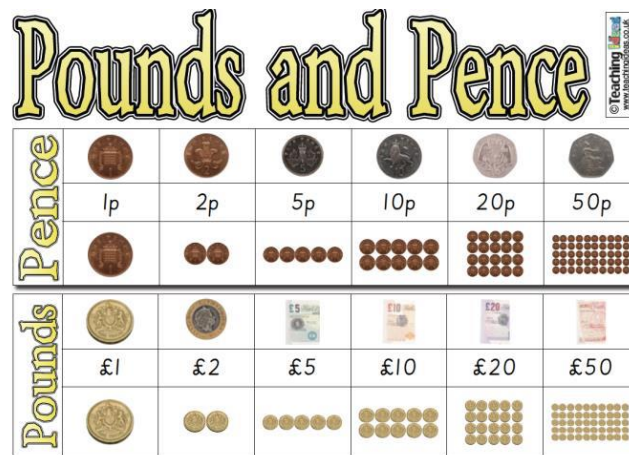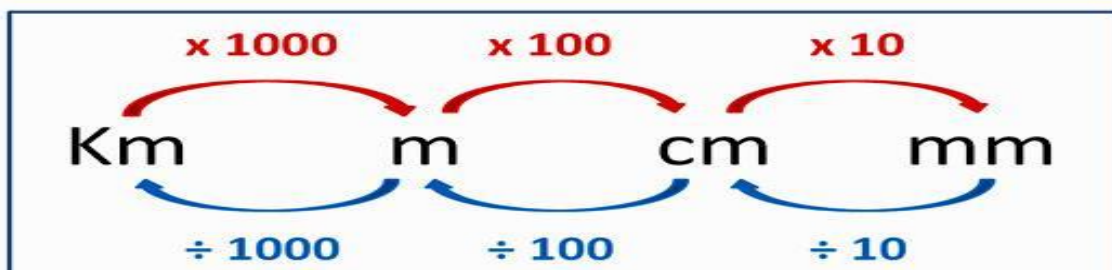

You can practise this daily with children in the shops or with the change in your wallet.

Converting measures:

Converting LENGTH Units

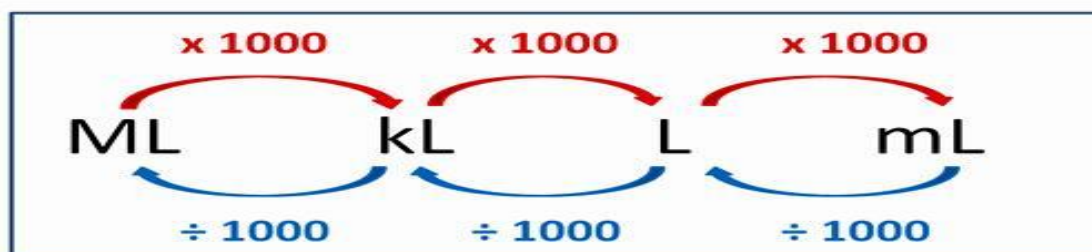It is easiest to use a conversion look-up diagram like the one below.

x 1000	x 100	x 10
Km → **m**	→ **cm**	→ **mm**
÷ 1000	÷ 100	÷ 10

5km = ? m   **Need to x 1000**   5 x 1000 = 5000m ✓

120cm = ? m   **Need to ÷ 100**   120 ÷ 100 = 1.2m ✓

Converting CAPACITY Units

The Volume of Liquids and Solids is usually measured as a "Capacity".

In the Metric System, Capacity is based on the Litre or "L" unit.

x 1000	x 1000	x 1000
ML → **kL**	→ **L**	→ **mL**
÷ 1000	÷ 1000	÷ 1000

CAPACITY conversions use 1000's, and usually create fairly large results.

32ML = ? L   Need to x 1000 twice   32 x 1000 x 1000 = 32 000 000 L ✓

Converting MASS Units

The Mass for weighing objects in Metric Units is similar to Capacity for Volumes.

In the Metric System, Mass is based on the Gram or "g" unit.

x 1000	x 1000	x 1000
tonne → **kg**	→ **g**	→ **mg**
÷ 1000	÷ 1000	÷ 1000
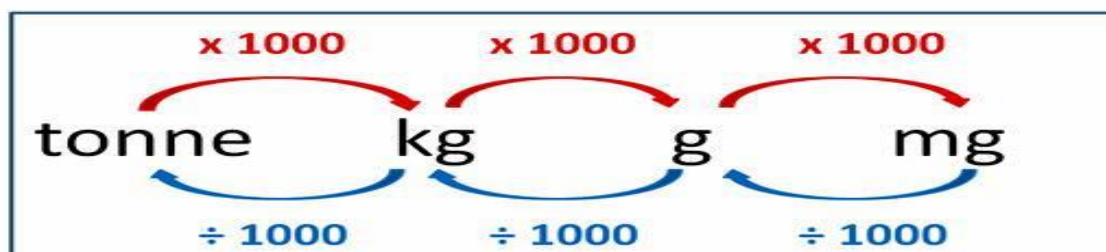
Mass conversions use 1000's, and usually create fairly large results.

1.6 tonne = ? kg   Need to x 1000   1.6 x 1000 = 1600 kg ✓

Negative Numbers:

Children need to be able to count through zero into negative numbers. One way you can do this is to ask children to calculate temperature increases and decreases.
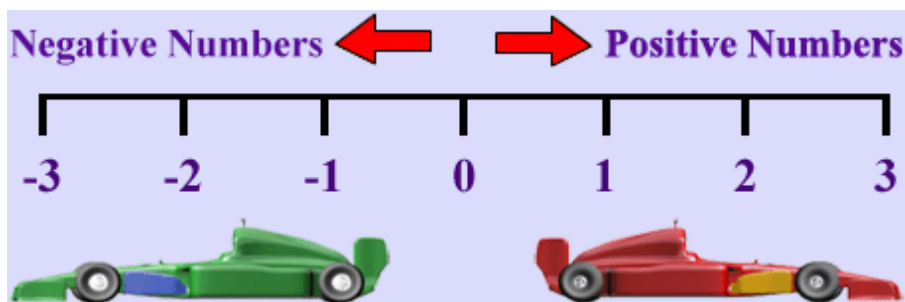
Times tables:

By the end of Year four children should know all the multiplication facts up to 12 x 12.