Clifton Primary School

A Parent's Guide to Mathematics in the Curriculum

Year 5

Children's numeracy skills can be greatly boosted by help at home, in the same way that regular help with spelling and reading can nurture their literacy skills. Parents are often nervous to help in maths however, worried they may confuse their child by teaching them 'different' methods ("we didn't do it like this in my day…"!).

At Clifton Primary School, we aim to teach children to work with number in lots of different ways. We know that what works for one child will not always make sense to another and that by giving them a range of different methods, they will be well equipped to select one which works for them. So please, be encouraged to talk about maths with your child. You never know, they may even teach you a new thing or two!
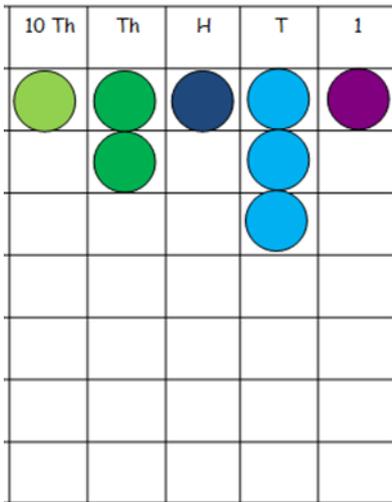
We hope you and your child enjoy this guide.

Rachel Wilkes, Head Teacher

Column addition

Add the digits in each column, starting with the column on the right.
If the sum of the digits in a column is more than 9, carry the 1 into the column to the left.

	1	2	4	3	1				1	2	4	3	5
+	5	3	5	4	8			+	5	3	5	4	8
	6	5	9	7	9				6	5	9	8	3

This picture represents the number 12,131 + 30.

10 Th	Th	H	T	1
🟢	🟢	🔵	🔵	🟣
	🟢		🔵	
			🔵	

To add 30, the tens digit will change.

12,131 + 30 = 12,161

To work out 15792 + 300 =
The tens and ones stay the same. 15792
Add three onto the other digits. 15792 + 300 = 16092

To work out 5634 + 199 =
Add 199, add 200 and take away 1.
5634 + 200 = 5834
5834 − 1 = 5833

Try at Home!
Spot the mistakes. Solve them correctly. What did they do wrong?

	3	2	4	0	3
+	2	3	5	6	9
	5	5	9	8	1
				2	

	5	6	4	5	2
+	2	3	4	5	7
	7	9	8	0	9

	3	2	4	1	2
+	2	3	5		
	5	5	9	1	2

	5	3	5	6	8				5	3	5	⁵6̸	¹8
-	1	2	4	3	1			-	1	2	4	3	9
	4	1	1	3	7				4	1	1	2	9

Column subtraction - Subtract the digits in each column, starting with the column on the right.
If the lower digit is higher than the upper digit, borrow 1 from the column to the left.

This picture represents the number 52,542 – 300.

To take away 300, the hundreds digit will change.

52,542 – 300 = 52,242

10 Th	Th	H	T	1
●	●	●	●	●
●	●	●	●	●
●		●	●	
●		●	●	
●		●		

To work out 16292 - 300 =

The tens and ones stay the same. 16292
Take away three from the other digits. 16292 - 300 = 15992

To work out 5634 - 1999 =
Take away 2000 and add 1.
5634 + 2000 = 7634
7634 – 1 = 7633

Try at Home!
Missing number problems such as:

$$7\_3$$
$$-\ \_85$$
$$\overline{45\_}$$

$$6\_\_$$
$$-\ \_74$$
$$\overline{297}$$

Short multiplication

THT1s X 1s

2741 × 6 becomes

```
    2  7  4  1
×          6
─────────────
 1  6  4  4  6
    4  2
```

Answer: 16 446

Long multiplication

T1s X T1s

```
       2
    2  4
×   1  6
────────
 2  4  0
 1  4  4
────────
 3  8  4
```

HT1s X T1s

```
    1  2
    1  2  4
×      2  6
───────────
 2  4  8  0
    7  4  4
───────────
 3  2  2  4
 1     1
```

ThHT1s x T1s

```
  2  3  1
  1 3 4 2
×    1 8
────────────
 1 3 4 2 0
 1 0 7 3 6
────────────
 2 4 1 5 6
      1
```

You can use your knowledge of one multiplication table fact to give the answer to 10 other calculations.

5 x 6 = 30

so

5 × 60 = 300
5 × 600 = 3000
5 × 0.6 = 3
50 × 0.6 = 30
500 × 0.6 = 300
0.5 × 0.6 = 0.3
0.05 × 0.6 = 0.03
0.05 × 0.06 = 0.003

Try at Home!

3 x 10 =

0.3 x 10 =

0.03 x 10 =

0.05 x 10 =

0.05 x 100 =

0.5 x 100 =

5 x 100 =

9 x 100 =

9 x 1000 =

0.9 x 1000 =

0.09 x 1000 =

1.09 x 1000 =

Begin with divisions that divide equally with no remainder. In this question start with 8 ÷ 4 = 2. Then 7 ÷ 4 = 1 r 3. The remainder (3) moves into the 1s column, to make 32. Finally 32 ÷ 4 = 8

```
    2  1  8
          3
 4  8  7  2
```

Move onto divisions with a remainder.

```
       8  6   r  2
          3
 5  4  3  2
```

Mental Division Strategies

You can use your knowledge of one multiplication table fact applied to division to give the answer to 10 other division calculations.

e.g. 30 ÷ 5 = 6 or 30 ÷ 6 = 5

so

300 ÷ 5 = 60
300 ÷ 60 = 5
3000 ÷ 5 = 600
3000 ÷ 50 = 60
3000 ÷ 500 = 6
3000 ÷ 600 = 500
3 ÷ 6 = 0.5
0.3 ÷ 6 = 0.05

Try at Home!

30 ÷ 10 =

3 ÷ 10 =

0.3 ÷ 10 =

500 ÷ 100 =

50 ÷ 100 =

5 ÷ 100 =

9000 ÷ 1000 =

900 ÷ 1000 =

90 ÷ 1000 =

95 ÷ 1000 =

Fractions

Children should be able to compare and order fractions whose denominators are multiples of the same number

Use < > or = to make the
statement below correct

$$\frac{3}{4} \qquad \frac{9}{12}$$

Order these fractions

$$\frac{2}{5}, \ \frac{5}{15}, \ \frac{3}{10}$$

Fill in the missing fraction

$$\frac{1}{3} = \frac{2}{\ } = \frac{3}{9}$$

$\dfrac{17}{20}$	$\dfrac{17}{32}$	$\dfrac{2}{16}$
$\dfrac{10}{28}$	$\dfrac{2}{4}$	$\dfrac{20}{36}$
$\dfrac{18}{44}$	$\dfrac{35}{48}$	$\dfrac{5}{8}$
$\dfrac{2}{12}$	$\dfrac{22}{40}$	$\dfrac{23}{24}$

Children should be able to recognise, find and write fractions of a discrete set of objects.

Useful Websites

- ictgames.com
- www.woodlands-junior.kent.sch.uk – Woodlands resources for maths.
- topmarks.com
- kidsmathgamesonline.com
- bbc.co.uk/skillswise/maths
- http://www.mathschamps.co.uk/