

St Raphael's



Year 4

'Our Objectives'

A guide to what you should focus on when helping your child at home.'

Read, write and order numbers from 0 - 10 000

Writing a selection of these numbers on scrap bits of paper and jumbling them up for you and your child to order will help reinforce this key skill.

An idea!

Use playing cards and select 4 cards (discard anything 10 or higher) and see what numbers you can make using those.

Set a challenge: Using the cards you chose make the highest and lowest number. What is the difference?



Add and subtract mentally 2 digit numbers

Strategies could be to look for near doubles $45+47 = 45 +45 +2 = 92$

Another strategy is to look for near multiples of ten
 $36+29 = ?$ Your child starts at 36 then says 46..56..66...65. They have added 30 then took the one!

Children may also attempt to partition one of the numbers



$$\begin{array}{r} 43 - 20 = 23 \\ 23 - 7 = 16 \end{array}$$

Times Tables 1 to 12			
1 times table 1 x 1 = 1 2 x 1 = 2 3 x 1 = 3 4 x 1 = 4 5 x 1 = 5 6 x 1 = 6 7 x 1 = 7 8 x 1 = 8 9 x 1 = 9 10 x 1 = 10 11 x 1 = 11 12 x 1 = 12	2 times table 1 x 2 = 2 2 x 2 = 4 3 x 2 = 6 4 x 2 = 8 5 x 2 = 10 6 x 2 = 12 7 x 2 = 14 8 x 2 = 16 9 x 2 = 18 10 x 2 = 20 11 x 2 = 22 12 x 2 = 24	3 times table 1 x 3 = 3 2 x 3 = 6 3 x 3 = 9 4 x 3 = 12 5 x 3 = 15 6 x 3 = 18 7 x 3 = 21 8 x 3 = 24 9 x 3 = 27 10 x 3 = 30 11 x 3 = 33 12 x 3 = 36	4 times table 1 x 4 = 4 2 x 4 = 8 3 x 4 = 12 4 x 4 = 16 5 x 4 = 20 6 x 4 = 24 7 x 4 = 28 8 x 4 = 32 9 x 4 = 36 10 x 4 = 40 11 x 4 = 44 12 x 4 = 48
5 times table 1 x 5 = 5 2 x 5 = 10 3 x 5 = 15 4 x 5 = 20 5 x 5 = 25 6 x 5 = 30 7 x 5 = 35 8 x 5 = 40 9 x 5 = 45 10 x 5 = 50 11 x 5 = 55 12 x 5 = 60	6 times table 1 x 6 = 6 2 x 6 = 12 3 x 6 = 18 4 x 6 = 24 5 x 6 = 30 6 x 6 = 36 7 x 6 = 42 8 x 6 = 48 9 x 6 = 54 10 x 6 = 60 11 x 6 = 66 12 x 6 = 72	7 times table 1 x 7 = 7 2 x 7 = 14 3 x 7 = 21 4 x 7 = 28 5 x 7 = 35 6 x 7 = 42 7 x 7 = 49 8 x 7 = 56 9 x 7 = 63 10 x 7 = 70 11 x 7 = 77 12 x 7 = 84	8 times table 1 x 8 = 8 2 x 8 = 16 3 x 8 = 24 4 x 8 = 32 5 x 8 = 40 6 x 8 = 48 7 x 8 = 56 8 x 8 = 64 9 x 8 = 72 10 x 8 = 80 11 x 8 = 88 12 x 8 = 96
9 times table 1 x 9 = 9 2 x 9 = 18 3 x 9 = 27 4 x 9 = 36 5 x 9 = 45 6 x 9 = 54 7 x 9 = 63 8 x 9 = 72 9 x 9 = 81 10 x 9 = 90 11 x 9 = 99 12 x 9 = 108	10 times table 1 x 10 = 10 2 x 10 = 20 3 x 10 = 30 4 x 10 = 40 5 x 10 = 50 6 x 10 = 60 7 x 10 = 70 8 x 10 = 80 9 x 10 = 90 10 x 10 = 100 11 x 10 = 110 12 x 10 = 120	11 times table 1 x 11 = 11 2 x 11 = 22 3 x 11 = 33 4 x 11 = 44 5 x 11 = 55 6 x 11 = 66 7 x 11 = 77 8 x 11 = 88 9 x 11 = 99 10 x 11 = 110 11 x 11 = 121 12 x 11 = 132	12 times table 1 x 12 = 12 2 x 12 = 24 3 x 12 = 36 4 x 12 = 48 5 x 12 = 60 6 x 12 = 72 7 x 12 = 84 8 x 12 = 96 9 x 12 = 108 10 x 12 = 120 11 x 12 = 132 12 x 12 = 144

PLEASE SUPPORT US WITH THIS KEY OBJECTIVE!!!

Know by heart multiplication and division facts for all tables up to 12x.

(division fact means that once your child knows that $2 \times 4 = 8$ they can use this to answer $8 \div 2 = 4$)

Explain the value of digits to 10 000

7452 is partitioned as shown below.

Place Value	Thousands	Hundreds	Tens	Ones
Number	7	4	5	2
Digit Value	7000	400	50	2

Multiply and divide 1 and 2 digit numbers by 10 and 100

We don't encourage the children to 'just add zero's' as this causes problems for a lot of children when they move up to higher Key Stage 2 and they have to calculate using decimals.

Instead use a place value chart and move the digits to the left once when x10 or twice when x100

This is reversed when dividing, the digits move the same amount of times but this time to the right as the number gets smaller when you divide.

TH	H	T	U
8	5	8	0
	8	5	8

The 0 goes past the decimal point and into the tenths column, as it is a zero it doesn't need writing as 858.0 is the same as 858.

e.g. $8580 \div 10 = 858$

Subtract up to 3 digit numbers using a more formal written method.

e.g. $92-38=54$

Use expanded method as an introduction to decomposition:

$$\begin{array}{r} 90 \ 2 \\ - 30 \ 8 \\ \hline \end{array} \rightarrow \begin{array}{r} 80 \ 12 \\ - 30 \ 8 \\ \hline 50 \ + \ 4 = 54 \end{array}$$

This method is the step before the more formal written method and helps children understand what is happening when they take a ten from the 'tens column' and put it into the units.

Add larger numbers that will give answers over 1000.

This example shows the method that will be applied to calculations where the answer may go over 1000. This then leads to the more formal method that will be further developed in Year 5.

$358 + 73 = 431$

either

$300 + 50 + 8$
 $+ \quad 70 + 3$
 $300 + 120 + 11 = 431$

or

358
 $\underline{73}$
 11
 120
 $\underline{300}$
 431

358
 $+ 73$
 $\underline{431}$
 11

Develop the 'Grid' method to multiply larger numbers.

Children must be confident partitioning numbers in order to then be able to use this method effectively.

HTU x U

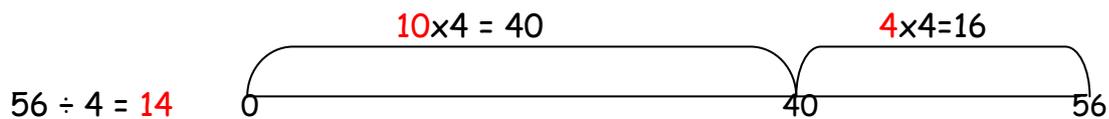
$123 \times 3 = 369$

	H	T	U
X	100	20	3
3	300	60	9

$300 + 60 + 9 = 369$

Use times tables facts to work out division with remainders.

Linking the fact $9 \times 3 = 27$ to answer $270 \div 9 = 30$ then using this to answer questions such as $276 \div 9 = 30$ remainder 6.



Then the more formal 'bus stop' or 'box' method may be introduced

$$\begin{array}{r} 14 \\ 6 \overline{) 84} \\ \underline{60} \\ 24 \\ \underline{24} \\ 0 \end{array}$$

$84 \div 6 = 14$

$1 \times 6 = 6$
 $2 \times 6 = 12$
 $3 \times 6 = 18$
 $4 \times 6 = 24$

6 goes into 80 10 times (so a 1 goes above the 8 in the tens column)

The 20 that is left over goes in the units to make 24. $24 \div 6 = 4$ so a 4 goes above in the units column giving an answer of 14.

If in this example the number being divided was 88 then at the end you would have 4 left over, this is the remainder and the answer would be written as 14r4.