

Varied Fluency at St John's

'I WILL Shine'



Fluency, reasoning and problem-solving skills will lead to children becoming great mathematicians! The National Curriculum states all children should: become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately

We have designed our curriculum so it follows a 'spiral' approach and children will have the opportunity to revisit and build upon prior learning to encourage them to become more fluent. We also try to present learning in a variety of ways to offer 'varied practice' to the idea

Missing box

$$3 \times \underline{\quad} = 15$$

Using the
inverse

Starting with the
answer

Roman numerals
V multiplied by III

Missing
numbers in
sequences

Find the
possibilities:

True or
false?

Which is
the odd
one out?

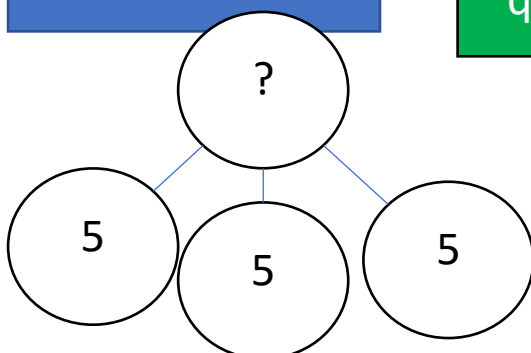
Spot the
mistake:

$$3 \times 2$$
$$6 \times 1$$

$$3 \times 2 = 6$$
$$3 \times 4 = 12$$

Conditions: Find all
the multiples of 3 that
are less than 20 and
are odd

Part-whole
(cherry diagram)



Match the
questions and

Bar model



Examples of varied fluency opportunities in the classroom

3

$\frac{25}{100}$
 $\frac{2}{10}$ $\frac{5}{100}$
 $\frac{73}{100}$
 $\frac{6}{10}$ and $\frac{7}{10}$ $\frac{3}{100}$

4 $\frac{88}{100}$		
4	$\frac{8}{10}$	$\frac{88}{100}$
4	$\frac{88}{100}$	

> < =
 Put the correct sign in each box.
 $10 + 5$ 10×5
 2×6 $6 + 6$

3)

64	65	66	67	68	69	70
74	75	76	77	78	79	80

Draw bar models for the following number sentence
 $15 + 6 = 21$ $18 + 5 = 23$

21	23
15	18
6	5

1) // + // = 10
 // + // = 11
 2) // = 5 + //
 // = 2 + //
 3) $25 = 14 + 11$
 $25 = 14 + 11$

I have a 28cm piece of string. I cut it
 How long is my piece of string now?

1) $7 + 3 = 10$ ✓
 $8 + 2 = 10$ ✓
 $7 + 1 = 10$ ✓

2) $10 = 4 + 6$ ✓
 $10 = 7 + 3$ ✓
 $10 = 9 + 1$ ✓

Handwritten calculations:

$400 + 600 = 1000$ ✓
 $1000 - 850 = 150$ ✓
 $670 + 330 = 1000$ ✓
 $100 = 1000 - 900$ ✓
 $6000 - 3800 = 2200$ ✓
 $5000 - 2800 = 2200$ ✓
 $10000 - 7800 = 2200$ ✓

Handwritten Roman numerals:

$220 = CCXX$
 $555 = DLV$
 $417 = CDXVII$
 $681 = LXXXI$

49	Forty nine
62	Sixty two
47	Forty seven
XCLII	

Handwritten calculations:

$6000 - 3800 = 2200$ ✓
 $5000 - 2800 = 2200$ ✓
 $10000 - 7800 = 2200$ ✓

800
0 + 10 + 10 + 10 + 10 + 10 + 10 + 10
0 + 20 + 20 + 0 + 0 + 0 + 0 + 0

 $2000 - 1800 = 200$ ✓
 $1000 - 700 = 300$ ✓
 30

6	6	6	6	6
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 $1000 - 700 = 300$ ✓
 $1000 - 700 = 300$ ✓

Match the Arabic number to the correct Roman numeral.

81	LXXXI
78	LXXVIII
34	LXXXIV
63	LXIII
74	LXXIV