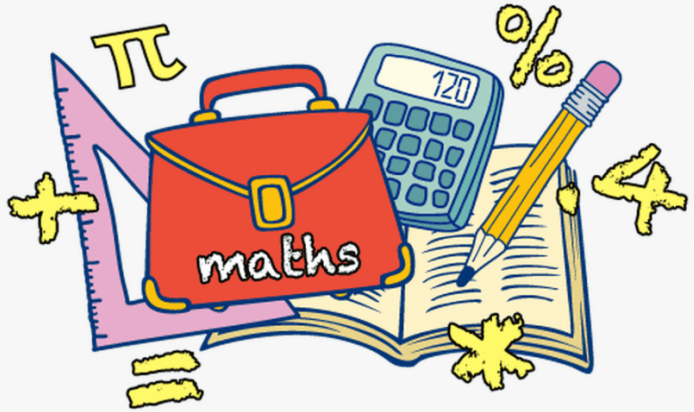
Year 6
Maths Workshop



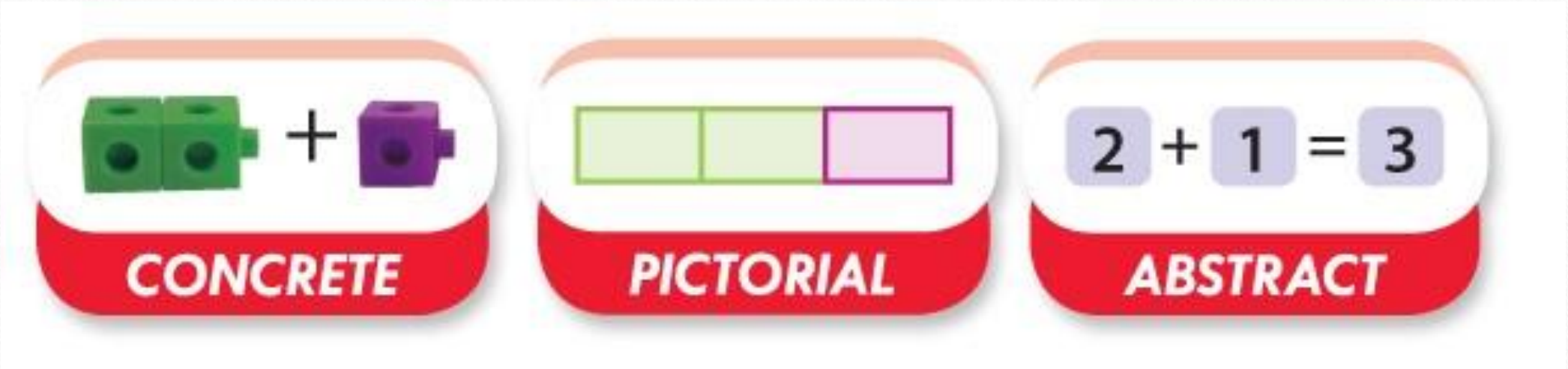
Thursday 10th November

Our Aims

- To outline the teaching methods, resources and philosophies we use at Five Ways for mathematics.
- To give an overview of the Year 6 maths curriculum and how that feeds into the SATS requirements.
- To share ideas and resources to enable you to support your child for the year ahead.

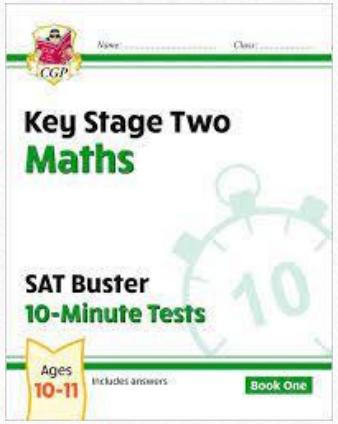
Our Maths Philosophy

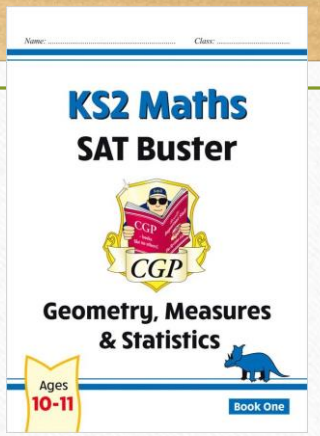
- CPA model



- Power of the brain – revisit, revisit, revisit…

TIMES TABLES ROCK STARS





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Spelling frame

Yearly overview

The yearly overview provides suggested timings for each block of learning, which can be adapted to suit different term dates or other requirements.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number **Place value**		Number **Addition, subtraction, multiplication and division**					Number **Fractions A**		Number **Fractions B**		Measurement **Converting units**
Spring	**Ratio**		**Algebra**		Number **Decimals**		Number **Fractions, decimals and percentages**		Measurement **Area, perimeter and volume**		**Statistics**	
Summer	Geometry **Shape**				Geometry **Position and direction**		Themed projects, consolidation and problem solving					

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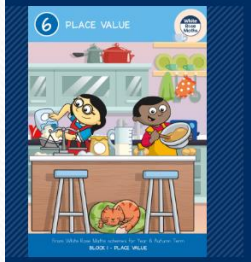
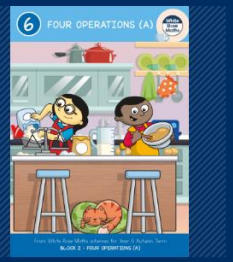
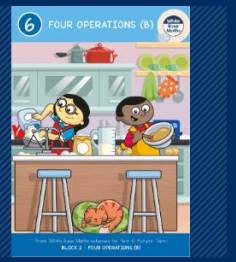
Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6



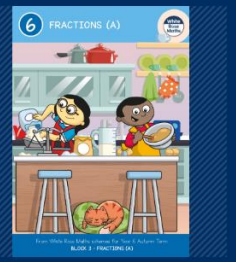
Autumn Block 1
Place value



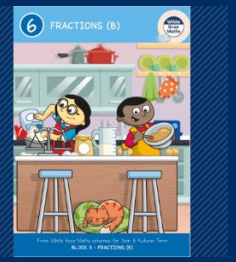
Autumn Block 2a
Four operations (a)



Autumn Block 2b
Four operations (b)



Autumn Block 3a
Fractions (a)



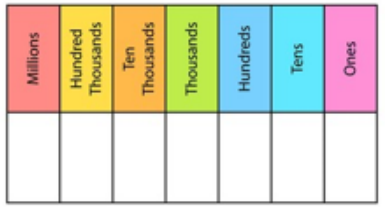
Autumn Block 3b
Fractions (b)

Number Match up Game

Place Value knowledge:

- What digit is in the ten thousands column?
- What digit is in the ones column?
- What digit is in the tens column?
- What digit in in the hundred thousands column.

Place Value Chart



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What would the number be rounded to the nearest:

- 10?
- 100?
- 100?
- 10 000?
- 100 000?

Read the number out loud in words.

- Find two cards to make this work:

  ? > ?

- Find 3 cards to make this work:
  ? < ? > ?

- Order all the cards in descending order.
- Order all the cards in ascending order.

- What would the number be if I added 5000? etc
- What would the number be if I subtracted 5000? etc
- What would double/halve the number be?
- What do I need to add to my number to total 1million?

- Is the number divisible by 2,3,4,5,10? How do you know?

Five hundred and twelve thousand, four hundred and ninety-seven

512, 497

Number of the Day Maths Fluency

write it:

_____

_____

Multiple of:

2 × ☐ 3 × ☐ 4 × ☐ 5 × ☐ 6 × ☐ 7 × ☐

8 × ☐ 9 × ☐ 10 × ☐ 11 × ☐ 12 × ☐

× 10 = _____

× 100 = _____

× 1000 = _____

$\frac{1}{2}$ = _____

$\frac{3}{4}$ = _____

$\frac{7}{10}$ = _____

Round to:

the nearest 10: _____

the nearest 100: _____

the nearest 1000: _____

Today's Number Is...

÷ 10 = _____

÷ 100 = _____

÷ 1000 = _____

Label the number line and show today's number.

<, > or =

$12^2 \times 14 \times 10$ ☐ today's number

Subtract 1784:

_____

Add 6719:

_____

Nearest prime number:

_____

1 979 + 100 =

2 123 × 2 =

3 6.1 + 0.3 =

4 24 × 3 =

5 1,034 + 586 =

6 48 ÷ 6 =

7 472 – 9 =

8 2.5 + 0.05 =

9 5 × 4 × 7 =

10 $\frac{4}{5} - \frac{1}{5} =$

11 630 ÷ 9 =

12 1.28 × 100 =

13 $4^2 =$

14 50,000 – 500 =

15 100 × 100 =

16 1,440 ÷ 12 =

17 20% of 1,500 =

18 1.52 × 6 =

19 $\frac{1}{9} + \frac{4}{9} =$

20 5,756 + 8,643 =

21 7,505 ÷ 5 =

22 12 – 6.01 =

23

$$\begin{array}{r} 54 \\ \times\ 23 \end{array}$$

Show your method

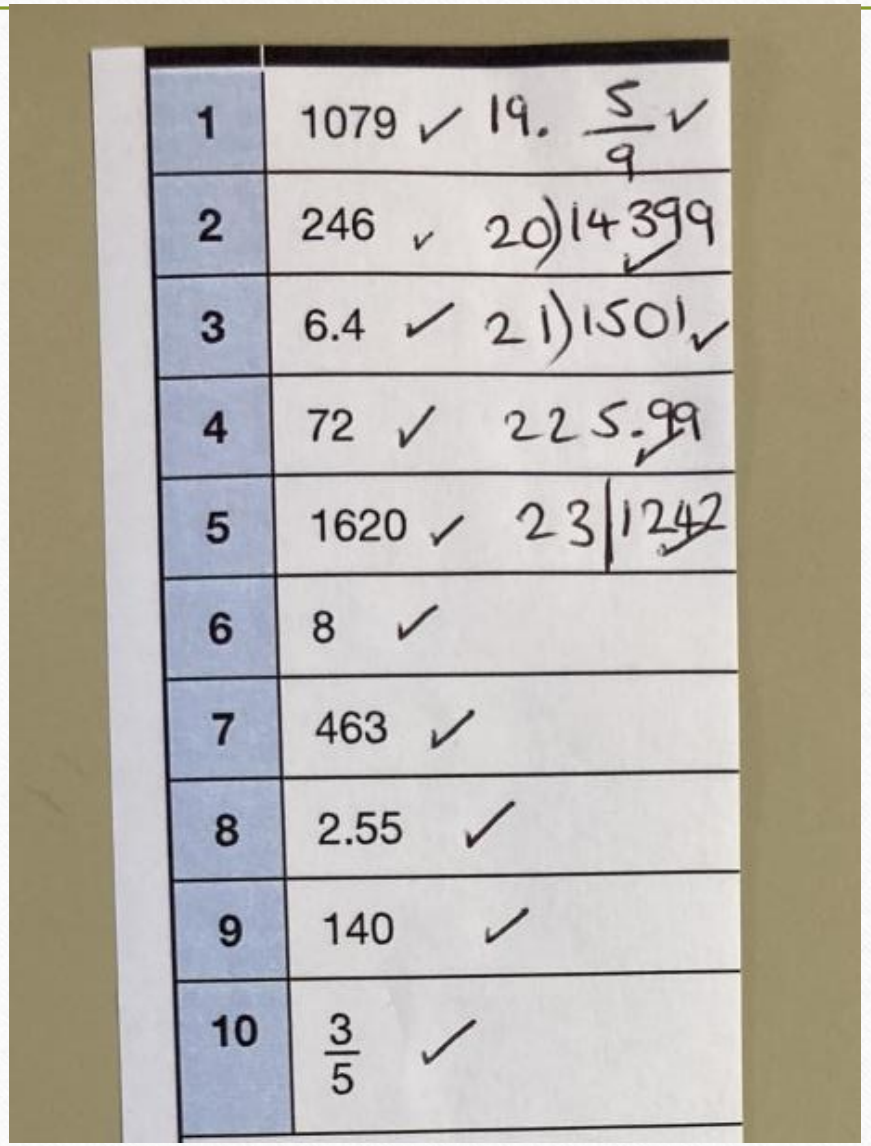
2019 national curriculum tests

Key stage 2

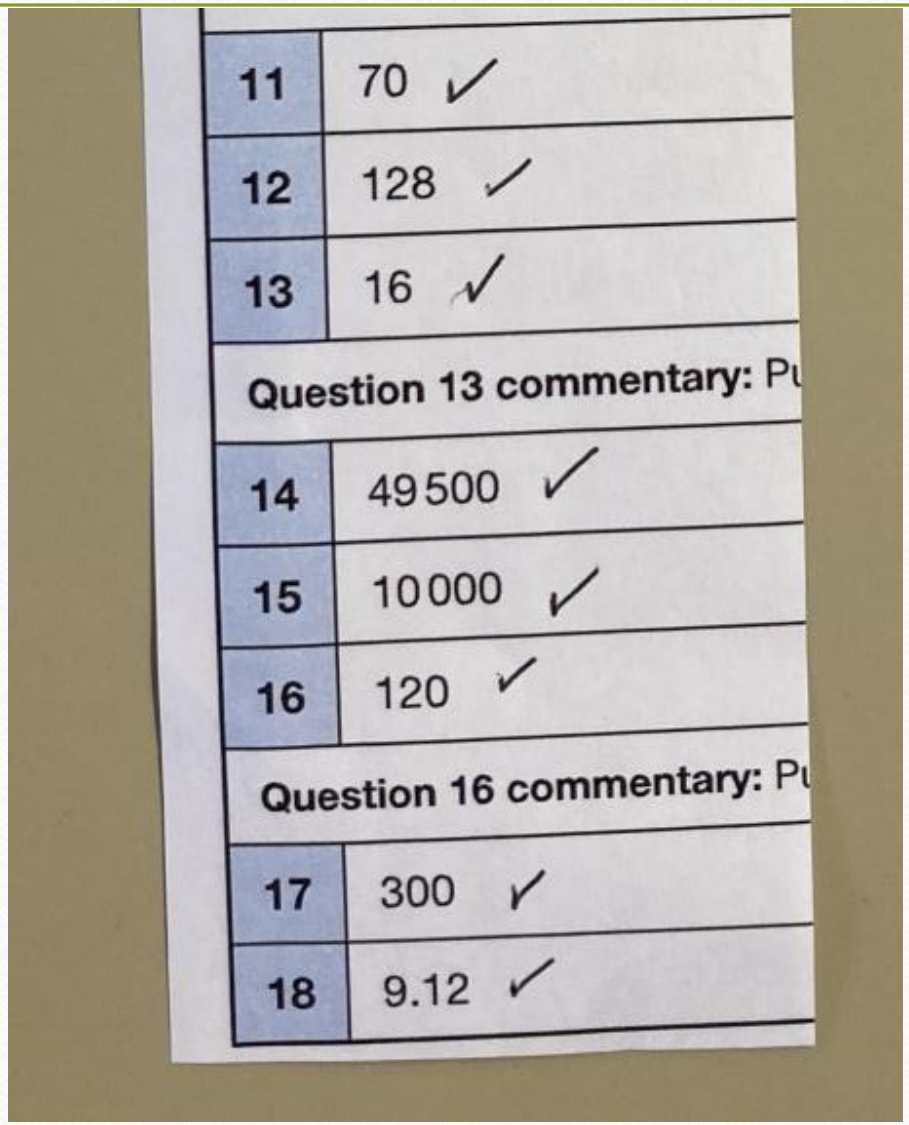
Mathematics

Paper 1: arithmetic

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
School name						
DfE number						



1	1079 ✓ 19. $\frac{5}{9}$ ✓
2	246 ✓ 20)14399 ✓
3	6.4 ✓ 21)1501 ✓
4	72 ✓ 225.99 ✓
5	1620 ✓ 23|1242
6	8 ✓
7	463 ✓
8	2.55 ✓
9	140 ✓
10	$\frac{3}{5}$ ✓



11	70 ✓
12	128 ✓
13	16 ✓
Question 13 commentary: Pu	
14	49 500 ✓
15	10 000 ✓
16	120 ✓
Question 16 commentary: Pu	
17	300 ✓
18	9.12 ✓

2016 national curriculum tests

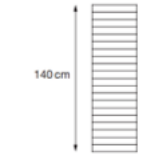
Key stage 2

Mathematics

Paper 2: reasoning

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
School name						
DfE number						

13 A stack of 20 identical boxes is 140 cm tall.



Not actual size

Stefan takes **three** boxes off the top.

How tall is the stack now?

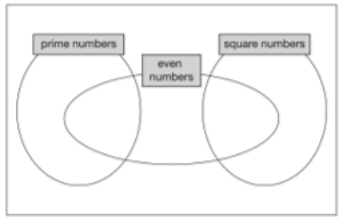
Show your method

cm

2 marks

5 Write each number in its correct place on the diagram.

16 17 18 19



2 marks

9

6 pencils cost **£1.68**

3 pencils and 1 rubber cost **£1.09**

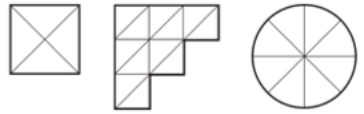
What is the cost of **1 rubber**?

Show your method

2 marks

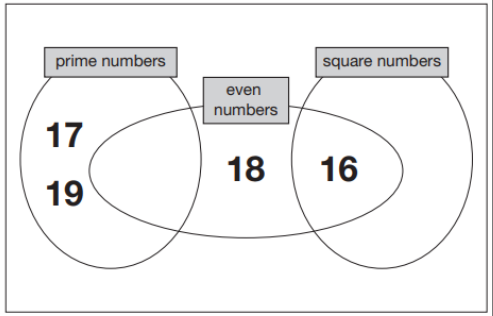
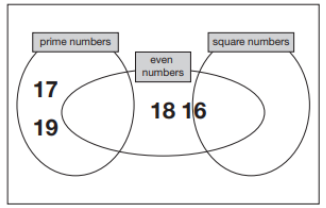
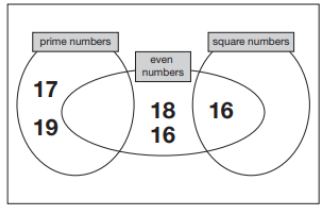
10 Each diagram below is divided into equal sections.

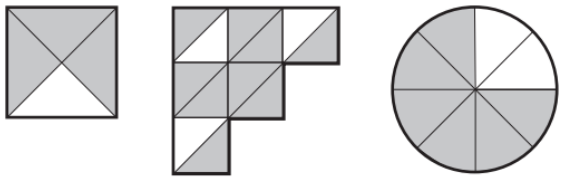
Shade three-quarters of each diagram.



2 marks

9	Award **TWO** marks for the correct answer of 25p If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g. • 168 ÷ 2 = 84 109 – 84 **OR** • 168 ÷ 6 = 28 3 × 28 = 84 109 – 84	**Up to 2m**	Accept for **TWO** marks, an answer given in the acceptable notation (see page 10 for guidance). Answer need not be obtained for the award of **ONE** mark. Accept for **ONE** mark an answer of 0.25p **OR** £25p **OR** £25 as evidence of an appropriate method.

5	Award **TWO** marks for all four numbers placed correctly as shown:  If the answer is incorrect, award **ONE** mark for three numbers placed correctly.	**Up to 2m**	Accept alternative unambiguous indications, e.g. lines drawn from the numbers to the appropriate regions of the diagram. **Do not** accept numbers written in more than one region, e.g.  **OR** 

10	Award **TWO** marks for all three diagrams completed to show three-quarters shaded, e.g.  If the answer is incorrect, award **ONE** mark for two diagrams correct.	**Up to 2m**	Accept alternative unambiguous indications of parts shaded.

13	Award **TWO** marks for the correct answer of 119 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g. • 140 ÷ 20 = 7 3 × 7 = 21 140 – 21 **OR** • 140 ÷ 20 = 7 20 – 3 = 17 17 × 7	**Up to 2m**	Answer need not be obtained for the award of **ONE** mark.

Why did the obtuse angle jump in the pool?

Because it was over 90 degrees.