

# Key Stage 1 Moderation using *Maths – No Problem!*

Date: 26.02.18

## Context:

Moderation is a key part of the KS1 assessment process and, as such, it is crucial that both practitioners and moderators alike have the same expectations and thereby come to the same conclusions. This is an issue that affects any school using *Maths No Problem!* at KS1.

Clear and specific moderation guidance, in relation to *Maths No Problem!*, is essential in securing judgements that are easily referenced and evidenced. This guidance is designed to enable schools to reach robust teacher assessment judgements and to provide a framework for discussion during internal and external moderation.

## DfE endorsement - *Maths No Problem!*:

- The use of well-designed and tested textbooks is critical for the successful implementation of teaching for mastery. A good textbook is both an aid for the teacher in planning lessons, and for the pupil during lessons and working on their own.
- In the 2017 spring term, publishers were invited to submit textbooks for review by an expert panel established by the DfE. The panel reviewed submissions against the published criteria.
- The panel concluded that the textbook *Maths No Problem!* (published by Maths No Problem) met the published criteria.

[\(http://www.mathshubs.org.uk/what-maths-hubs-are-doing/teaching-for-mastery/textbooks/\)](http://www.mathshubs.org.uk/what-maths-hubs-are-doing/teaching-for-mastery/textbooks/)

## Sources of evidence (see Appendix 1 for detailed notes):

- A. General guidance on evidence:
- i. The level of support must be clarified to demonstrate which pieces are independent (i.e. if a child has received adult support, this must be clearly signposted)
  - ii. Journals and Workbooks constitute evidence that is derived from normal classroom practise (replacing traditional maths books)
  - iii. At KS1, the exemplification materials show children have made use of concrete apparatus (which might include number lines, cubes, Numicon, Cuisenaire rods) to support their number work
  - iv. It is good practise to tabulate/track where evidence for each framework strand can be located
  - v. There are no stipulations in terms of quantity; however, it is best practise to have 3 pieces of evidence per ITAF strand
  - vi. When making a decision that a pupil consistently demonstrates the 'pupil can' statements within a standard, teachers are expected to exercise their professional judgement
- B. Evidence will come from four main sources for schools using *Maths No Problem!*:
1. **Journals**
  2. **SATs results**
  3. **Workbooks**
  4. **Other assessments**

# EXEMPLIFICATION

**WORKING AT** THE EXPECTED STANDARD

## STATEMENT

The pupil can partition two-digit numbers into different combinations of tens and ones. This may include using apparatus (e.g. 23 is the same as 2 tens and 3 ones which is the same as 1 ten and 13 ones).

### WORKBOOK: Chapter 1 (p14)

2 Complete the number bonds. (F)

(a) *Did in head*

46: 40 + 6, 30 + 16

46: 10 + 36, 20 + 26

(b)

72: 70 + 2, 60 + 12

72: 40 + 32, 20 + 52

(c)

69: 60 + 9, 50 + 19

69: 10 + 59, 40 + 29

Numbers to 100 Page 14

### JOURNAL

Date: 17/1/17

WALT: Partition two digit numbers into different combinations of tens and ones.

87: 80 + 7, 70 + 17

87: 60 + 27, 50 + 37

87: 40 + 47, 30 + 57

Date: 20.2.18

WALT: Partition two digit numbers into different combinations of tens and ones.

Partition 38 in 3 different ways

38 = 30 + 8 ✓

38 = 20 + 18 ✓

38 = 10 + 28 ✓

Target: I am learning about part part whole. Can you split the whole numbers into different parts? Can you find at least two ways?

## CONTEXT

For Workbook entries, the teacher observes pupils discussing the 'In Focus' task before independently completing the activities in the photo(s) above. Any adult support is clearly indicated on the piece of work.

Journaling activities are completed independently, either to extend from the Workbook, to consolidate learning or ensure prior learning evident in Workbook has been retained. Journals also provide the opportunity to draw upon a range of skills in different contexts, demonstrating their reasoning abilities. This includes the use of 'In Focus' tasks, 'Guided Practice' tasks and specifically designed reasoning and fluency tasks.

## STATEMENT

The pupil can add 2 two-digit numbers within 100 (e.g.  $48 + 35$ ) and can demonstrate their method using concrete apparatus or pictorial representations.

### WORKBOOK: Chapter 2 (p42-5)

Also see: Ch 2 p35-41, Ch 10 p23-6

### JOURNAL

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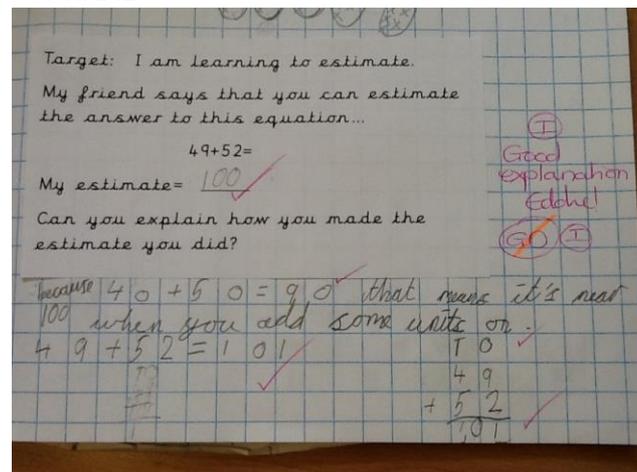
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## STATEMENT

The pupil can use estimation to check that their answers to a calculation are reasonable (e.g. knowing that  $48 + 35$  will be less than 100).

WORKBOOK: no specific evidence

JOURNAL



Target: I am learning to estimate.

My friend says that you can estimate the answer to this equation...

$$49 + 52 =$$

My estimate = 100 ✓

Can you explain how you made the estimate you did?

because  $40 + 50 = 90$  that means it's near 100 when you add some units on:

$$49 + 52 = 101$$

$$\begin{array}{r} 49 \\ + 52 \\ \hline 101 \end{array}$$

Good explanation Ectoh!

## CONTEXT

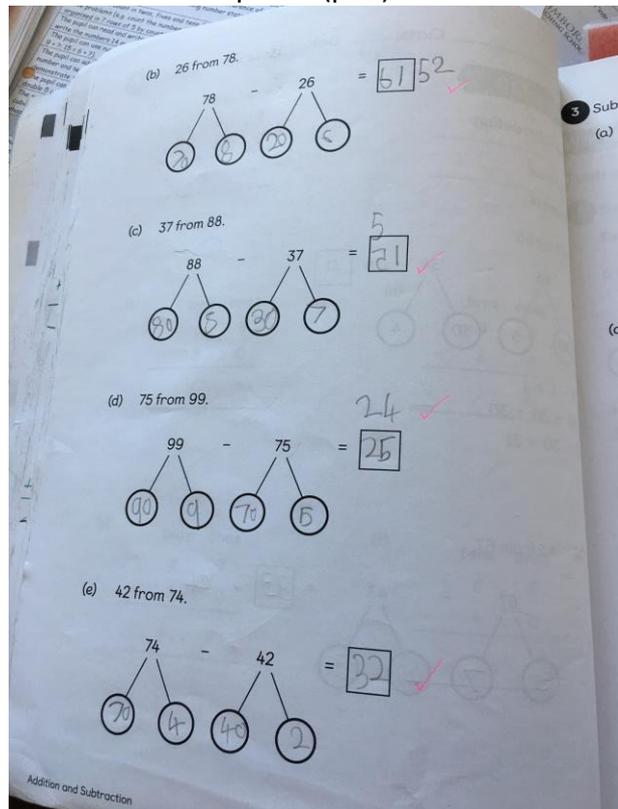
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## STATEMENT

The pupil can subtract mentally a two-digit number from another two-digit number when there is no regrouping required (e.g.  $74 - 33$ ).

### WORKBOOK: Chapter 2 (p58)



(b) 26 from 78.  $78 - 26 = 52$

(c) 37 from 88.  $88 - 37 = 51$

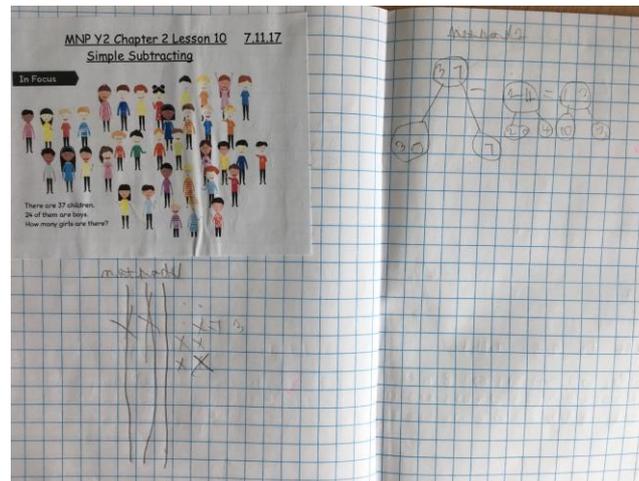
(d) 75 from 99.  $99 - 75 = 24$

(e) 42 from 74.  $74 - 42 = 32$

Each problem is solved using a tree diagram to decompose the numbers. For example, for (b), 78 is decomposed into 70 and 8, and 26 into 20 and 6. The calculation shows 70 minus 20 equals 50, and 8 minus 6 equals 2, resulting in 52.

Also see: Ch 2 p57, Ch 10 p35-

### JOURNAL



MNP Y2 Chapter 2 Lesson 10 7.11.17  
Simple Subtracting

In Focus  
There are 37 children.  
24 of them are boys.  
How many girls are there?

Handwritten tree diagram for 37 - 24 = 13.

## CONTEXT

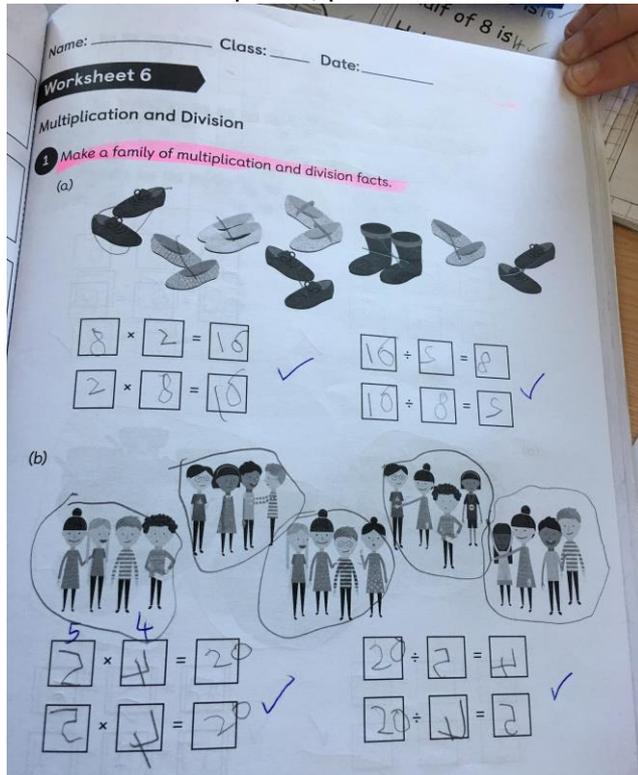
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## STATEMENT

The pupil can recognise the inverse relationships between addition and subtraction and use this to check calculations and work out missing number problems (e.g.  $\Delta - 14 = 28$ ).

### WORKBOOK: Chapter 4, p131



Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Worksheet 6**  
Multiplication and Division

1 Make a family of multiplication and division facts.

(a)

*(Illustration of shoes)*

$$\begin{array}{l} 8 \times 2 = 16 \\ 2 \times 8 = 16 \end{array} \quad \begin{array}{l} 16 \div 8 = 2 \\ 16 \div 2 = 8 \end{array}$$

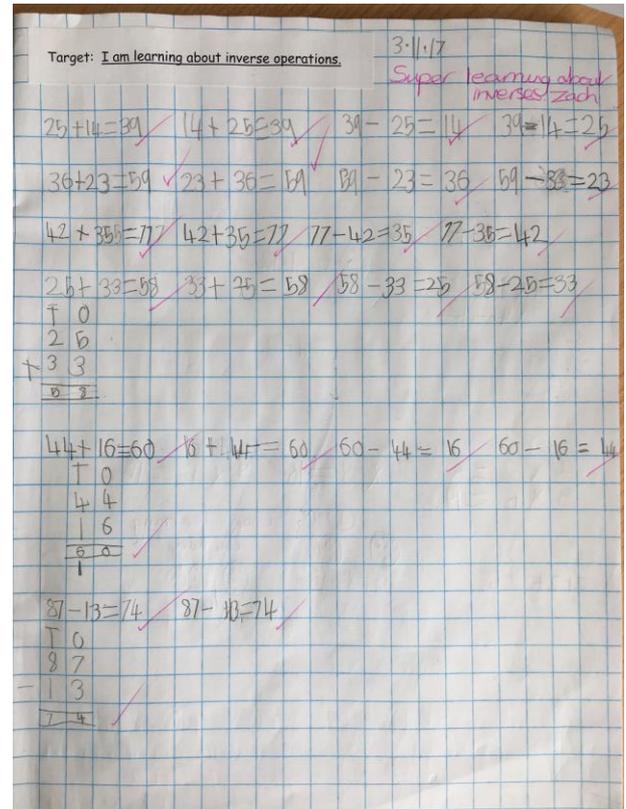
(b)

*(Illustration of people)*

$$\begin{array}{l} 2 \times 4 = 20 \\ 2 \times 4 = 20 \end{array} \quad \begin{array}{l} 20 \div 2 = 4 \\ 20 \div 4 = 2 \end{array}$$

Also see: Ch 4 p133

### JOURNAL



Target: I am learning about inverse operations. 3.11.17

*Super learning about inverse zach*

$25 + 14 = 39$  ✓  $14 + 25 = 39$  ✓  $39 - 25 = 14$  ✓  $39 - 14 = 25$  ✓  
 $36 + 23 = 59$  ✓  $23 + 36 = 59$  ✓  $59 - 23 = 36$  ✓  $59 - 36 = 23$  ✓  
 $42 + 35 = 77$  ✓  $42 + 35 = 77$  ✓  $77 - 42 = 35$  ✓  $77 - 35 = 42$  ✓  
 $25 + 33 = 58$  ✓  $33 + 25 = 58$  ✓  $58 - 33 = 25$  ✓  $58 - 25 = 33$  ✓

$\begin{array}{r} 70 \\ 25 \\ + 33 \\ \hline 03 \end{array}$

$44 + 16 = 60$  ✓  $16 + 44 = 60$  ✓  $60 - 44 = 16$  ✓  $60 - 16 = 44$  ✓

$\begin{array}{r} 70 \\ 44 \\ + 16 \\ \hline 00 \end{array}$

$87 - 13 = 74$  ✓  $87 - 13 = 74$  ✓

$\begin{array}{r} 74 \\ 87 \\ - 13 \\ \hline 74 \end{array}$

## CONTEXT

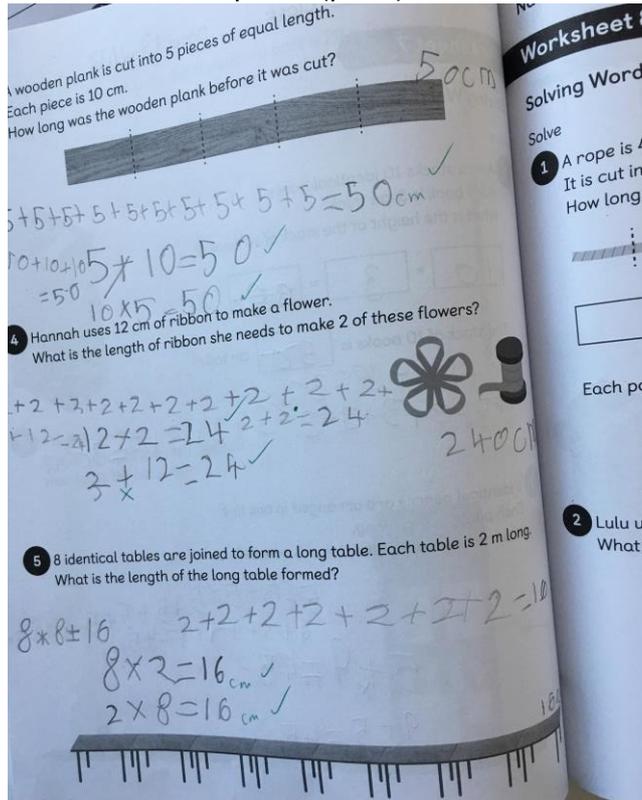
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## STATEMENT

The pupil can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables to solve simple problems, demonstrating an understanding of commutativity as necessary (e.g. knowing they can make 7 groups of 5 from 35 blocks and writing  $35 \div 5 = 7$ ; sharing 40 cherries between 10 people and writing  $40 \div 10 = 4$ ; stating the total value of six 5p coins).

### WORKBOOK: Chapter 5 (p175)



Worksheet 5 Solving Word Problems

1 A wooden plank is cut into 5 pieces of equal length. Each piece is 10 cm. How long was the wooden plank before it was cut?

$5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 50 \text{ cm}$

$5 \times 10 = 50$

2 Hannah uses 12 cm of ribbon to make a flower. What is the length of ribbon she needs to make 2 of these flowers?

$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 24$

$3 \times 4 = 12$

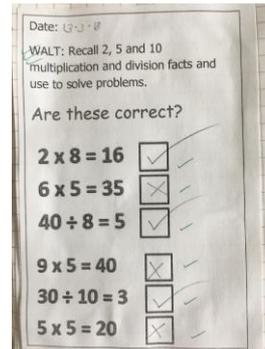
3 8 identical tables are joined to form a long table. Each table is 2 m long. What is the length of the long table formed?

$8 \times 2 = 16$

$2 \times 8 = 16$

Also see: Ch5 p177, Ch6 p205-7, Ch 6 Review, Ch15 p168-170

### JOURNAL



Date: 13-3-18

WALT: Recall 2, 5 and 10 multiplication and division facts and use to solve problems.

Are these correct?

$2 \times 8 = 16$

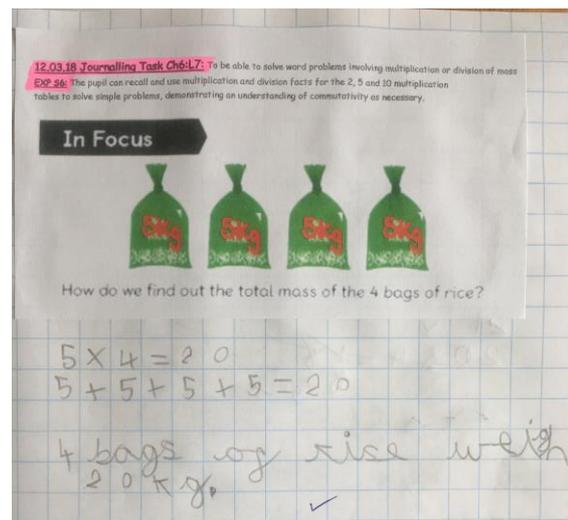
$6 \times 5 = 35$

$40 \div 8 = 5$

$9 \times 5 = 40$

$30 \div 10 = 3$

$5 \times 5 = 20$



12.03.18 Journaling Task Ch6-17: To be able to solve word problems involving multiplication or division of mass

EXE-56: The pupil can recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables to solve simple problems, demonstrating an understanding of commutativity as necessary.

**In Focus**

How do we find out the total mass of the 4 bags of rice?

$5 \times 4 = 20$

$5 + 5 + 5 + 5 = 20$

4 bags of rice weigh 20 kg ✓

## CONTEXT

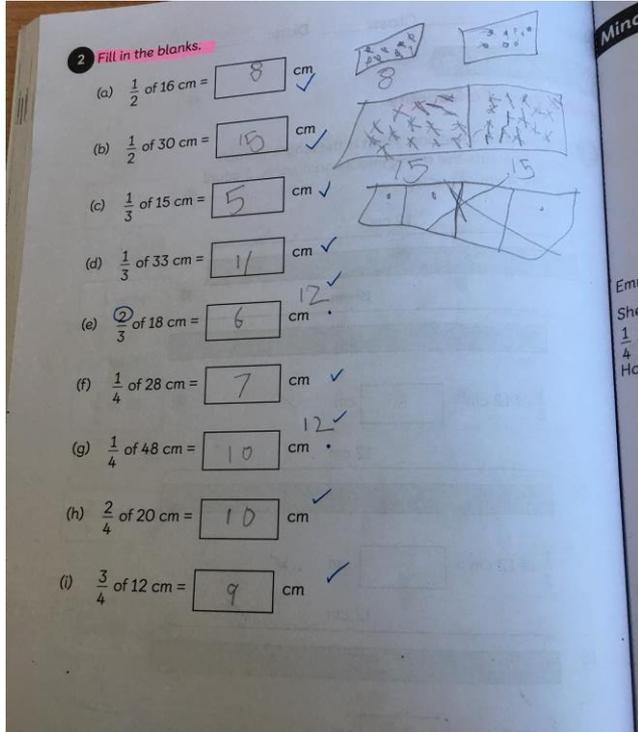
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## STATEMENT

The pupil can identify  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$  and knows that all parts must be equal parts of the whole.

### WORKBOOK: Chapter 13 (p122)



2 Fill in the blanks.

(a)  $\frac{1}{2}$  of 16 cm = 8 cm ✓

(b)  $\frac{1}{2}$  of 30 cm = 15 cm ✓

(c)  $\frac{1}{3}$  of 15 cm = 5 cm ✓

(d)  $\frac{1}{3}$  of 33 cm = 11 cm ✓

(e)  $\frac{2}{3}$  of 18 cm = 12 cm ✓

(f)  $\frac{1}{4}$  of 28 cm = 7 cm ✓

(g)  $\frac{1}{4}$  of 48 cm = 12 cm ✓

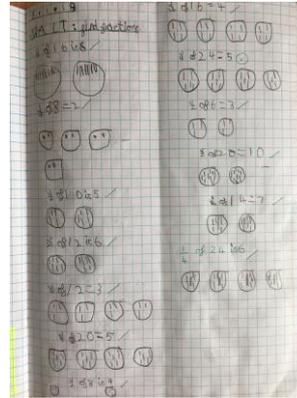
(h)  $\frac{2}{4}$  of 20 cm = 10 cm ✓

(i)  $\frac{3}{4}$  of 12 cm = 9 cm ✓

Diagrams include a circle divided into 8 parts, a rectangle divided into 3 parts, and a rectangle divided into 4 parts.

Also see: Ch 13 p95-6, p97-8, p124,  
Ch 13 Review

### JOURNAL



Year 2 In focus task

1.  $\frac{1}{2}$  of 16 = 8 ✓

2.  $\frac{1}{2}$  of 30 = 15 ✓

3.  $\frac{1}{3}$  of 15 = 5 ✓

4.  $\frac{1}{3}$  of 33 = 11 ✓

5.  $\frac{2}{3}$  of 18 = 12 ✓

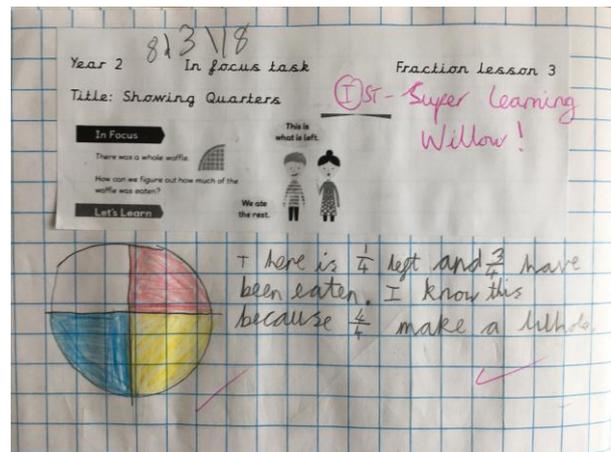
6.  $\frac{1}{4}$  of 28 = 7 ✓

7.  $\frac{1}{4}$  of 48 = 12 ✓

8.  $\frac{2}{4}$  of 20 = 10 ✓

9.  $\frac{3}{4}$  of 12 = 9 ✓

Diagrams include a circle divided into 8 parts, a rectangle divided into 3 parts, and a rectangle divided into 4 parts.



Year 2 8/3/18 In focus task Fraction lesson 3

Title: Showing Quarters

In Focus: There was a whole waffle. How can we figure out how much of the waffle was eaten? Let's Learn.

This is what is left: Willow!

We ate the rest.

There is a drawing of a waffle divided into four quadrants (red, blue, yellow, green).

There is  $\frac{1}{4}$  left and  $\frac{3}{4}$  have been eaten. I know this because  $\frac{3}{4}$  make a whole.

## CONTEXT

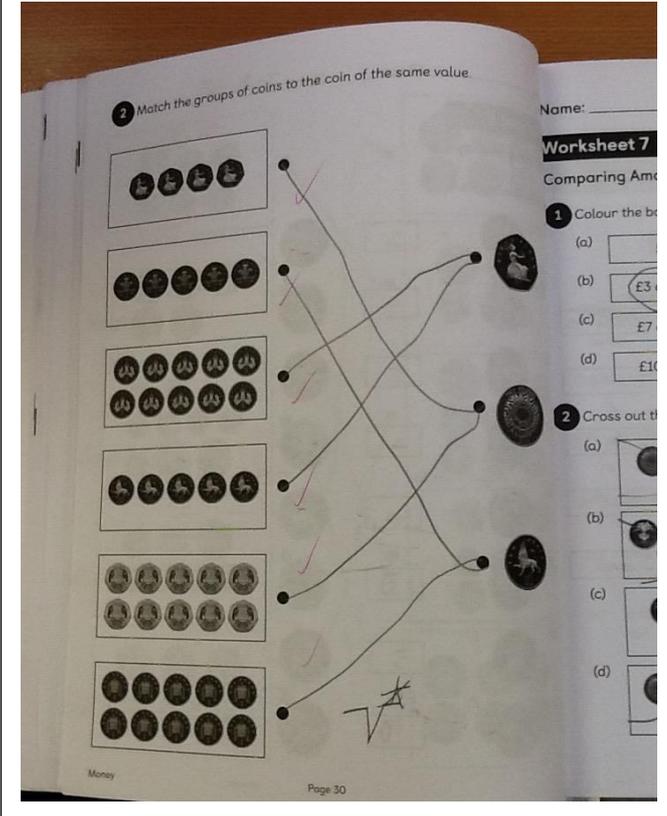
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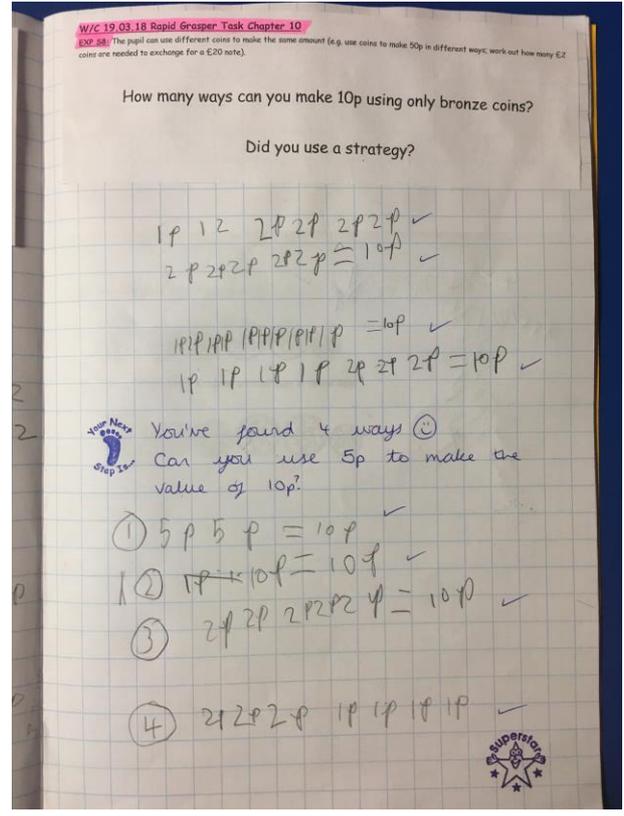
## STATEMENT

The pupil can use different coins to make the same amount (e.g. pupil uses coins to make 50p in different ways; pupil can work out how many £2 coins are needed to exchange for a £20 note).

### WORKBOOK: Ch 10 p30



### JOURNAL



## CONTEXT

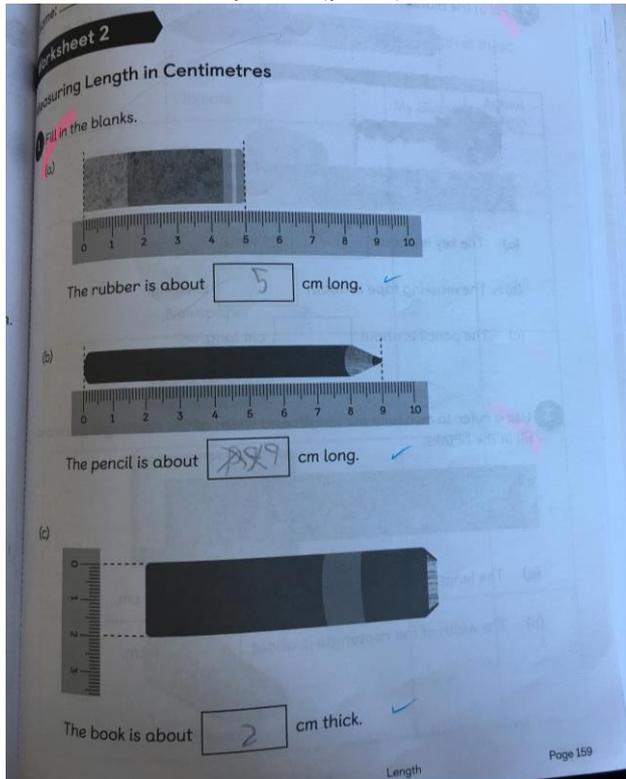
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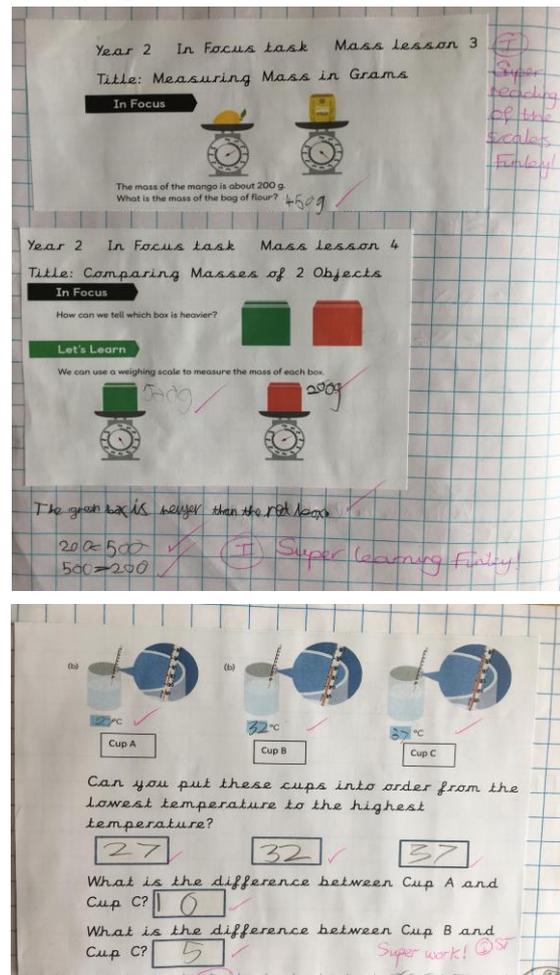
The pupil can read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given (e.g. pupil reads the temperature on a thermometer or measures capacities using a measuring jug).

### WORKBOOK: Chapter 5 (p159)



Also see: Ch6 p187, Ch7 p215 Ch15 p162

### JOURNAL



## CONTEXT

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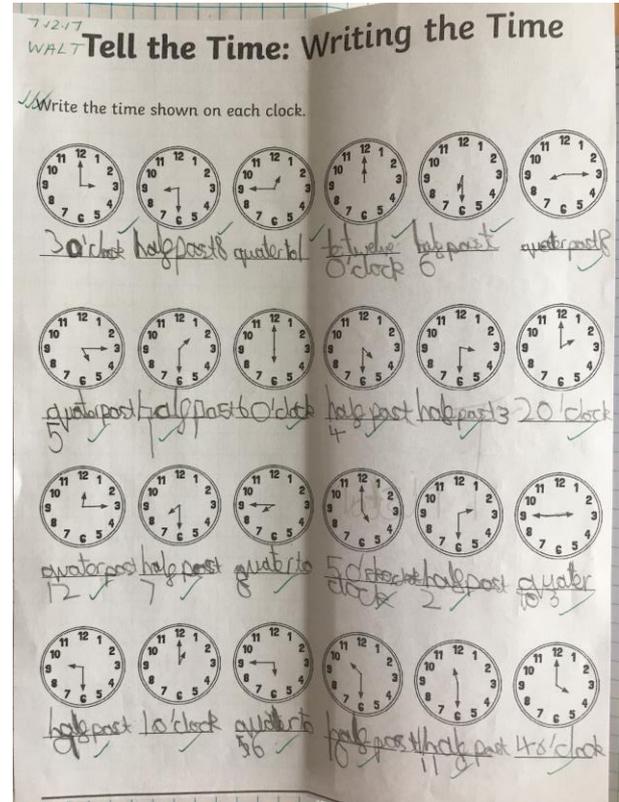
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## STATEMENT

The pupil can read the time on the clock to the nearest 15 minutes.

WORKBOOK: no specific evidence

## JOURNAL



## CONTEXT

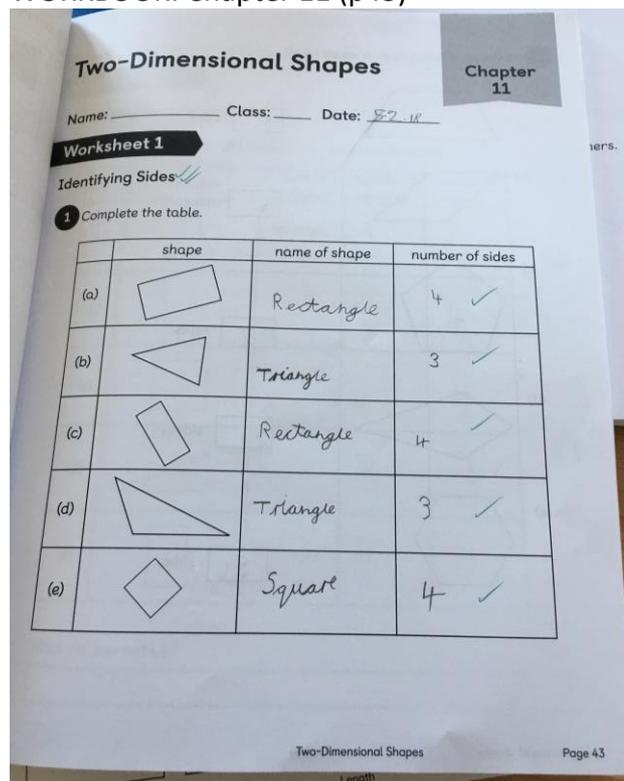
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## STATEMENT

The pupil can describe properties of 2-D and 3-D shapes (e.g. the pupil describes a triangle: it has 3 sides, 3 vertices and 1 line of symmetry; the pupil describes a pyramid: it has 8 edges, 5 faces, 4 of which are triangles and one is a square).

### WORKBOOK: Chapter 11 (p43)



**Two-Dimensional Shapes** Chapter 11

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: 27.10

**Worksheet 1**

Identifying Sides

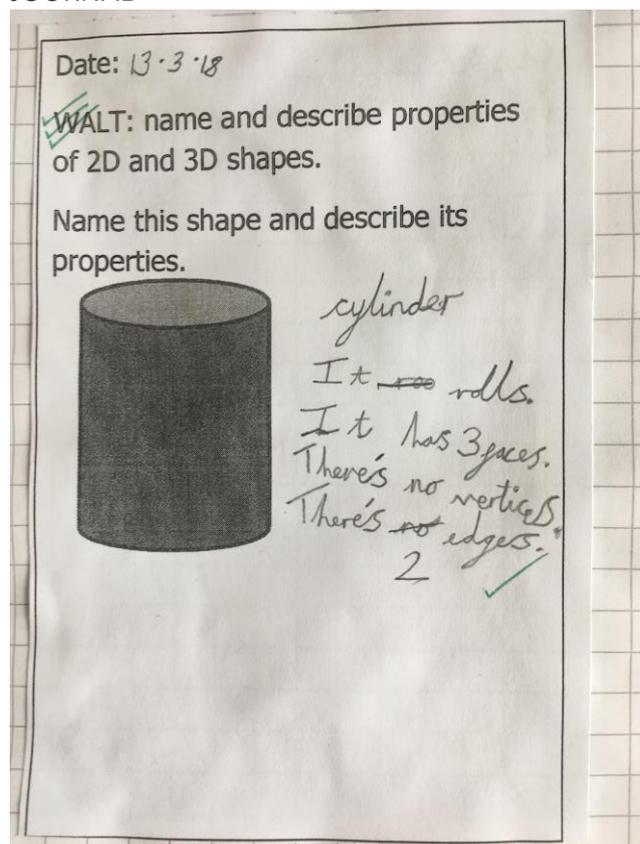
1 Complete the table.

	shape	name of shape	number of sides
(a)		Rectangle	4 ✓
(b)		Triangle	3 ✓
(c)		Rectangle	4 ✓
(d)		Triangle	3 ✓
(e)		Square	4 ✓

Two-Dimensional Shapes Page 43

Also see: Ch 11 p45, 47  
Ch 12 p71

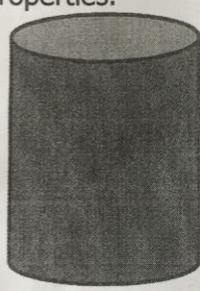
### JOURNAL



Date: 13.3.18

WALT: name and describe properties of 2D and 3D shapes.

Name this shape and describe its properties.

 cylinder

It ~~is~~ rolls.

It has 3 faces.

There's no vertices.

There's ~~no~~ edges.

2 ✓

## CONTEXT

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