

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

Date: 20.04.18

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/>)

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 **GREATER DEPTH** WITHIN THE EXPECTED STANDARD

STATEMENT

The pupil can reason about addition (e.g. pupil can reason that the sum of 3 odd numbers will always be odd).

JOURNAL – example 1:

Investigating odd numbers (60)

Choose any pair of odd numbers to add. Try a few examples. What do you notice?

$5+7=12$
 $9+5=14$
 $5+5=10$

It always is an even number

Now choose 3 odd numbers to add. Try a few examples. What do you notice?

$5+5+5=15$
 $3+7+5=11$

It always makes an odd number

What about adding 4 odd numbers together? What do you notice?

$5+5+5+5=20$
 $3+3+3+3=12$

It always makes an even number

Have you noticed a pattern? Can you predict what might happen if you add 5 odd numbers together?

$3+3+3+3+3=15$
 $5+5+5+5+5=25$

It always makes an odd number


if you add an even group of odd numbers it will make an even number

JOURNAL – example 2:

Date: 19.11.18

WALT: Understand money

True or false: 4 five pence coins are worth more than 2 ten pence coins. Explain why.



True because

4 five pences makes 20 and so does 2 ten pences.

CONTEXT

No specific Workbook evidence for this strand.

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 use multiplication facts to make deductions outside known multiplication facts (e.g. a pupil knows that multiples of 5 have one digit of 0 or 5 and uses this to reason that 18×5 cannot be 92 as it is not a multiple of 5).

JOURNAL – example 1:

Exit Slip: 7.11.16

What have you noticed about the digit in the ones column that tells you it must be in the 2 times table?

They have the ones times table at the end of the number-senses.

Ben says that 25 is in the 2 times table. Is he right or wrong? Tell me how you know this.

He is wrong because 5 is an odd number.

9.11.16

Exit slip: Can you record your 2X table? Can you explain what you notice about it?

I go up in 2's.

1	$\times 2$	= 2
2	$\times 2$	= 4
3	$\times 2$	= 6
4	$\times 2$	= 8
5	$\times 2$	= 10
6	$\times 2$	= 12
7	$\times 2$	= 14
8	$\times 2$	= 16
9	$\times 2$	= 18
10	$\times 2$	= 20
11	$\times 2$	= 22
12	$\times 2$	= 24

JOURNAL – example 2:

Reasoning about multiplication

For each equation choose a number that could be reasonably correct.

Then explain why you chose this number.

$19 \times 10 =$ 185 190 192

I did this because 185 or 192 is not in the ten times tables.

$19 \times 2 =$ 33 35 38

I knew that it was 38 because 33 or 35 is not in the 2 times tables.

$14 \times 5 =$ 71 70 67

It is 70 because 71 or 67 isn't in the 5 times tables.

CONTEXT

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STATEMENT

The pupil can work out mental calculations where regrouping is required (e.g. $52 - 27$; $91 - 73$).

WORKBOOK: Ch 2 pg67

2 Subtract.

(a)

tens	ones
4	4
- 1	6
<hr/>	
2	8

 ✓

(b)

tens	ones
6	1
- 2	7
<hr/>	
3	4

 ✓

(c)

tens	ones
7	3
- 3	6
<hr/>	
3	7

 ✓

(d)

tens	ones
5	4
- 4	5
<hr/>	
0	9

 ✓

(e)

tens	ones
4	2
- 2	8
<hr/>	
1	4

 ✓

(f)

tens	ones
8	4
- 3	5
<hr/>	
4	9

 ✓

JOURNAL:

15.03.18 Deep Marking Journaling Task Ch9:13
 90.01: The pupil can work out mental calculations where regrouping is required (e.g. $52 - 27$; $91 - 73$).

There are 52 in the tray. 37 are taken out.
 How many pencils are left in the tray?

$52 - 37 = 15$

$50 - 30 = 20$
 $20 - 7 = 13$ Pencils

There are 15 Pencils Left in the Tray

Superstar! ★

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. A child working at greater depth would be expected to be successful in the large majority of Workbook activities.

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STATEMENT

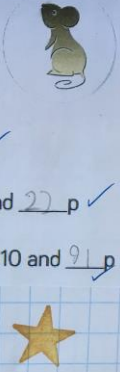
The pupil can solve more complex missing number problems (e.g. $14 + - 3 = 17$; $14 + \Delta = 15 + 27$).

JOURNAL – example 1:

W/C 19.03.18 Rapid Grasper Chapter 10
6D.64: The pupil can solve more complex missing number problems (e.g. $14 + - 3 = 17$; $14 + \Delta = 15 + 27$)

Complete the missing boxes

- $£10 + £5 + 50p = £\underline{15} \text{ and } \underline{50} \text{ p}$ ✓
- $£20 + £2 + 10p + 10p + 2p = £\underline{22} \text{ and } \underline{22} \text{ p}$ ✓
- $£5 + £\underline{5} + 50p + 20p + 20p + 1p = £10 \text{ and } \underline{91} \text{ p}$ ✓



JOURNAL – example 2:

Date: 3.11.17

WALT: multiply

Think of a multiplication to complete:

$6 + 6 + 6 > \underline{2} \times \underline{6}$ ✓

CONTEXT

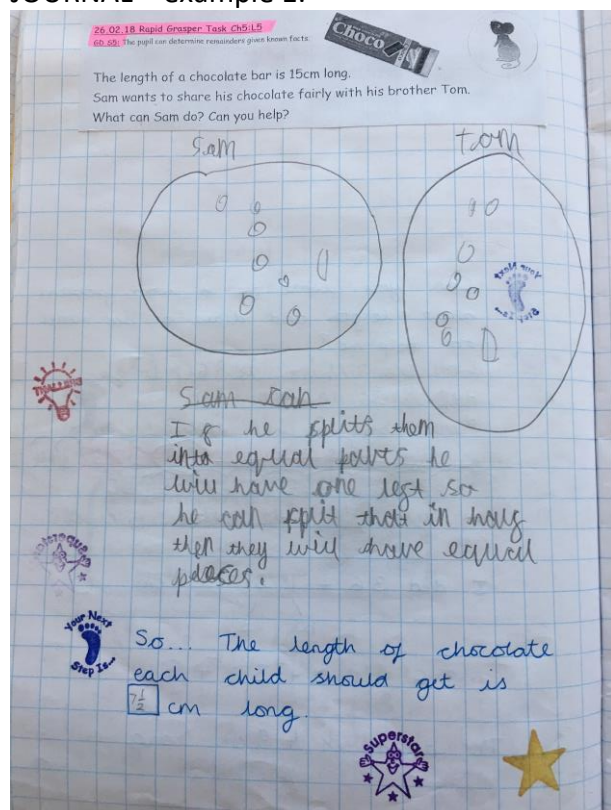
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STATEMENT

The pupil can determine remainders given known facts (e.g. given $15 \div 5 = 3$ and has a remainder of 0, pupil recognises that $16 \div 5$ will have a remainder of 1; knowing that $2 \times 7 = 14$ and $2 \times 8 = 16$, pupil explains that making pairs of socks from 15 identical socks will give 7 pairs and one sock will be left).

JOURNAL – example 1:



26.02.18 Rapid Grasping Task Ch5.1.3
60.02. The pupil can determine remainders given known facts.

The length of a chocolate bar is 15cm long.
Sam wants to share his chocolate fairly with his brother Tom.
What can Sam do? Can you help?

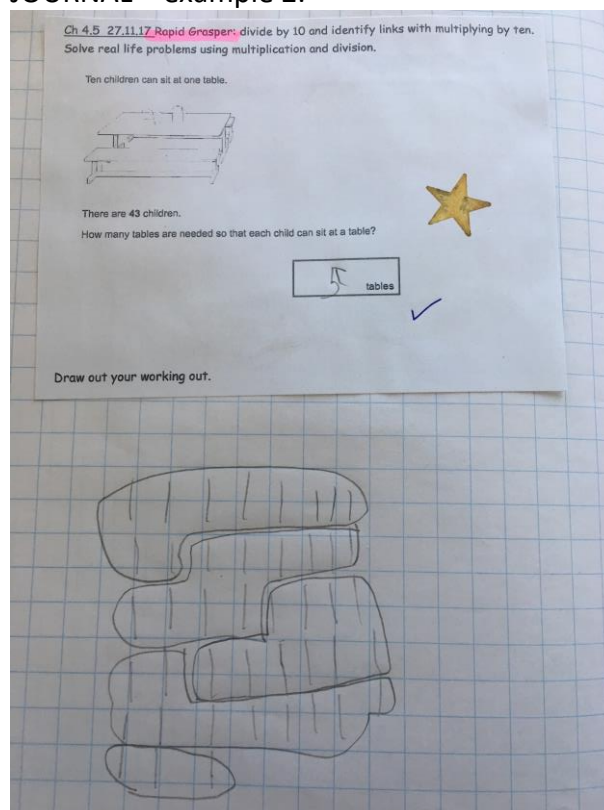
Sam Tom

Sam Tom

If he splits them into equal halves he will have one left so he can split that in half then they will have equal pieces.

So... The length of chocolate each child should get is $\frac{1}{2}$ cm long.

JOURNAL – example 2:



Ch 4.5 27.11.17 Rapid Grasping: divide by 10 and identify links with multiplying by ten.
Solve real life problems using multiplication and division.

Ten children can sit at one table.

There are 43 children.
How many tables are needed so that each child can sit at a table?

5 tables

Draw out your working out.

CONTEXT

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STATEMENT

The pupil can solve word problems that involve more than one step (e.g. which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet?).

WORKBOOK: Ch9 pg12

4 Amira bakes 52 cupcakes.
Ruby bakes 14 fewer cupcakes than Amira bakes.
How many cupcakes do Amira and Ruby bake altogether?

52 - 14 = 38 ✓
52 + 38 = 90 ✓

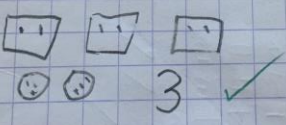


JOURNAL:

TIP Have a go at this.

James bakes 3 trays of cakes with 2 cakes on each tray.

He shares the cakes with his brother. How many cakes do they get each?



$3 \times 2 = 6$

CONTEXT

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STATEMENT


The pupil can recognise the relationships between addition and subtraction and can rewrite addition statements as simplified multiplication statements (e.g. $10 + 10 + 10 + 5 + 5 = 3 \times 10 + 2 \times 5 = 4 \times 10$).

JOURNAL – example 1:

Date: 7.11.17

WALT: multiply ✓✓


Can you write 4 number sentences to describe the array?



$2 \times 5 = 10$ ✓
 $5 \times 2 = 10$ ✓
 $2 + 2 + 2 + 2 + 2 = 10$ ✓
 $5 + 5 = 10$ ✓

JOURNAL – example 2:

White Rose
Rewrite addition statements as simplified multiplication statements

Three 2s	Draw it	Addition	Multiplication
There are 3 equal groups with 2 in each group.		$2 + 2 + 2 = 6$	$3 \times 2 = 6$ ✓

There are 6 equal groups with 3 in each group

~~$2 + 2 + 2 + 2 + 2 + 2 = 12$~~
 ~~$3 + 3 + 3 + 3 + 3 + 3 = 18$~~
 $6 \times 3 = 18$ (18)

CONTEXT

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The pupil can find and compare fractions of amounts (e.g. $\frac{1}{4}$ of £20 = £5 and $\frac{1}{2}$ of £8 = £4 so $\frac{1}{4}$ of £20 is greater than $\frac{1}{2}$ of £8).

25.1.18 Deep Marking journaling task Ch13.1
600.8 (green) The pupil can find and compare fractions of amounts.

Elliott says $\frac{1}{2}$ of £20 is more than $\frac{3}{4}$ of £16. Is he correct?

Explain and show your working out.

Elliott is wrong because
if you draw it out
the answer to $\frac{1}{2}$ of 20 = 10
and $\frac{3}{4}$ of 16 = 12 and 12 is
bigger.

$\frac{1}{2}$ of 20 = 10

$\frac{3}{4}$ of 16 = 12

Date: 16.1.18

WALT: find and compare fractions of amounts.

Jamie has $\frac{1}{2}$ of £10 and Josh has $\frac{1}{4}$ of £16.

Who has the most money?

Show your workings.

£5 more

£4

Jamie has the biggest

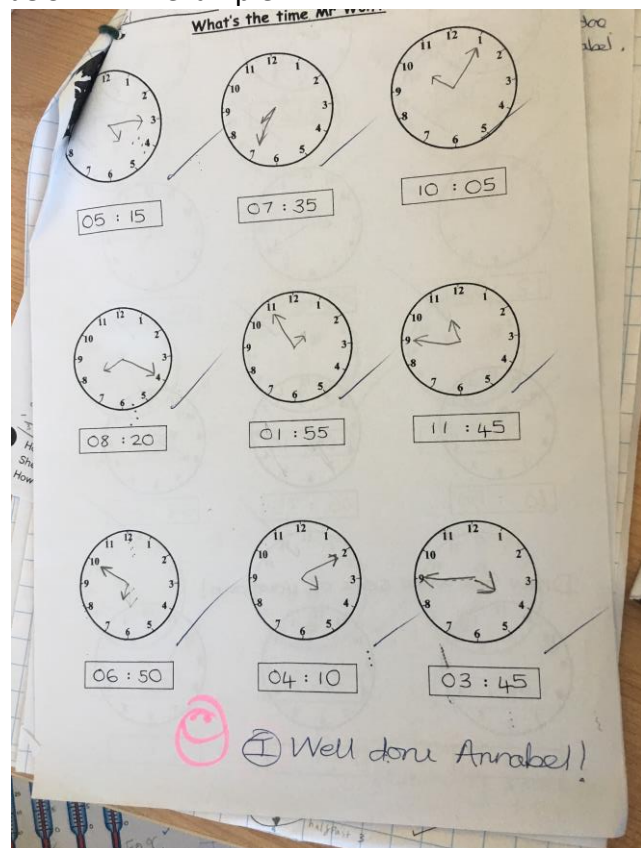
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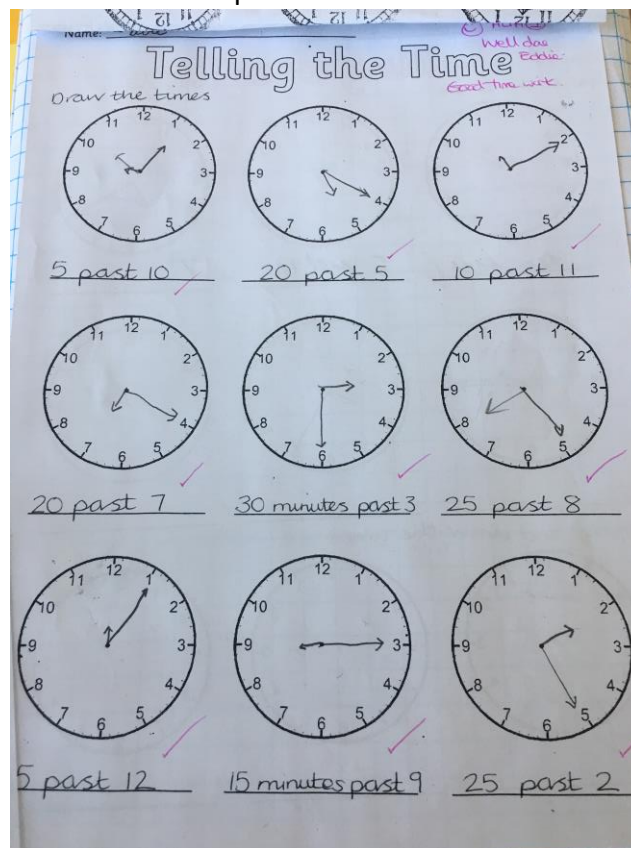
STATEMENT

The pupil can read the time on the clock to the nearest 5 minutes.

JOURNAL – example 1:



JOURNAL – example 2:



CONTEXT

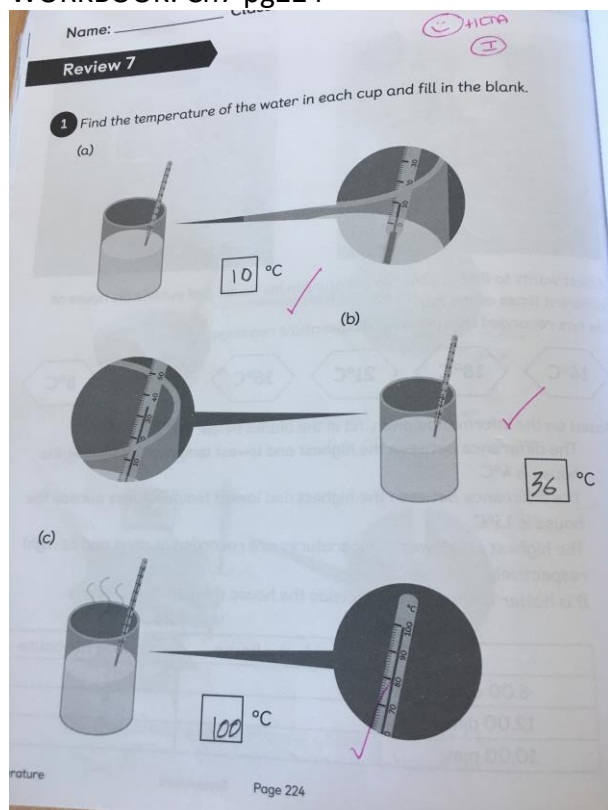
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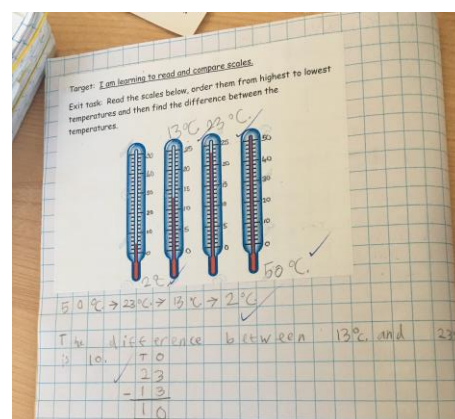
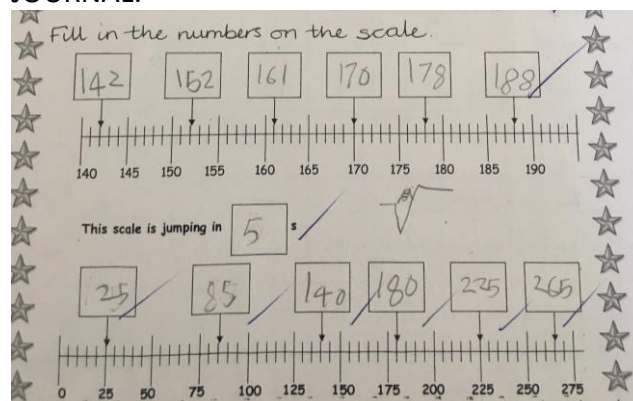
STATEMENT

The pupil can read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given.

WORKBOOK: Ch7 pg224



JOURNAL:



CONTEXT

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









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STATEMENT

The pupil can describe similarities and differences of shape properties (e.g. finds 2 different 2-D shapes that only have one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices but can describe what is different about them).

JOURNAL – example 1:




Target: I am learning to sort 2 and 3D shapes by choosing my own criteria.

	polyon	not polygon
3 sides or less		 
more than 3 sides	     	

HCA
Well done
Super Shape sorting!

JOURNAL – example 2:

20.6.17 Exit slip- Blib's challenge!
Find three different 3D shapes in the classroom and name them.

 cylinder
 cuboid
 right circular cylinder

What is my shape? It is used in a game with two teams. It has one face.
Sphere

Well done!

What's the same about a cube and a cuboid?
What is different? A cube is the same as a cuboid because they have 6 faces, 8 vertices and 12 edges. The difference with a cuboid and a cube is a cube has the same size of faces and a cuboid has different size of faces.

Find a 2D shape and a 3D shape in the classroom- could these objects have been designed better using a different shape- e.g. would a clock be better as a square? NO because 12 is the wrong place or there's the wrong amount of numbers on the clock face will not be the same.

CONTEXT

No specific Workbook evidence for this strand.

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