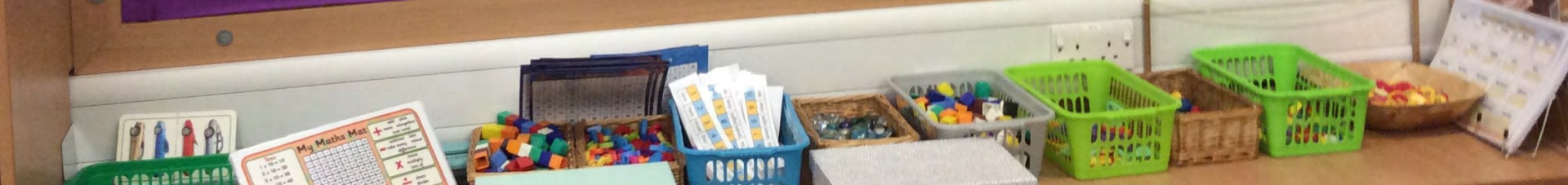


Maths Displays

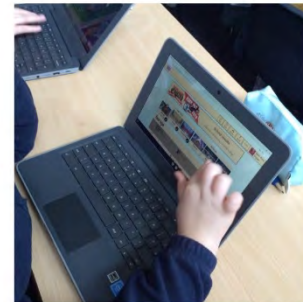
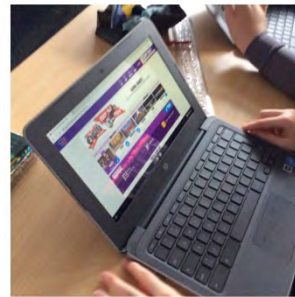




Maths Learning Stations



TTRockstars

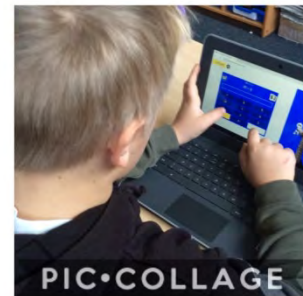


MATHS WEEK
England
9TH-14TH NOVEMBER

ROCK OUT
2020

Timings
Start date: 9th November 2020, 07:30
End date: 14th November 2020, 19:30
Daily open times: 07:30 - 19:30

Your school is now enrolled in this competition

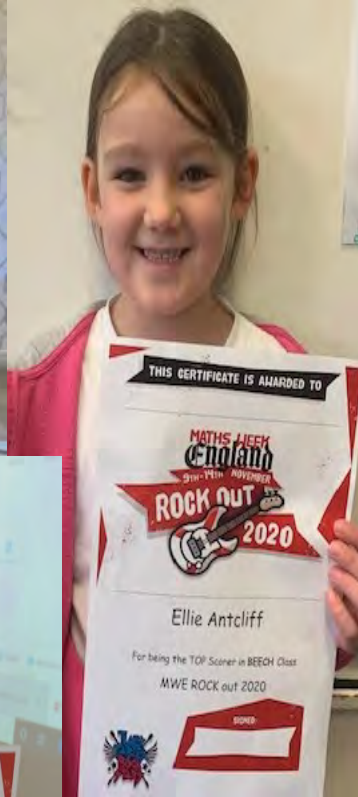




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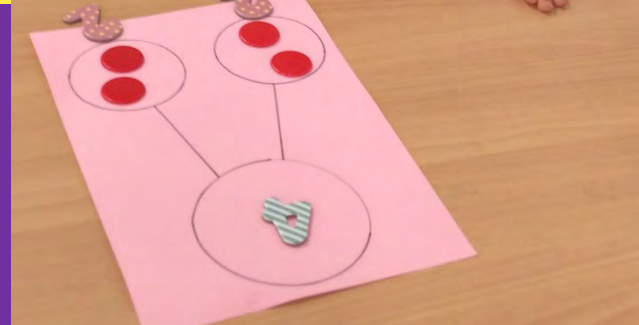


Maths Competitions and Awards

PIC•COLLAGE



Examples of Maths Learning Foundation





Star learners can...
Consolidate their knowledge of number bonds to 10

09.11.2020



Examples of Maths Learning Year 1

Today we played a number bond matching game. Children were given a number and were challenged to find the number that matched their own to make 10. Children checked the two numbers equalled 10 by adding their cubes together. We then had a go at translating our practical work into number sentences on whiteboards.



Star Learners: can subtract using taking away as a method 10.11.20

Objective achieved:
I can complete stem sentences and draw pictures to represent the subtraction story
I can complete stem sentences and complete part whole models to represent the subtraction story
With support, I can complete part whole models where the whole has been given for subtraction stories
With support, I can take away from a given amount using pictures to support

a

First there were 8 oranges on the tree.

Then 5 dropped off.

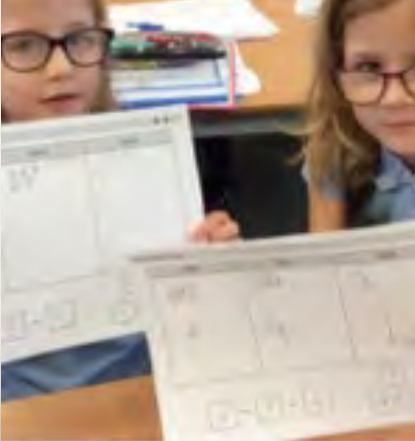
Now there are 3 oranges left.

b

First there were 10 birds on the perch.

Then 6 flew away.

Now there are 4 birds left.



17.11.20
 ★ Star Learners: can understand and use bonds to 100 (tens).

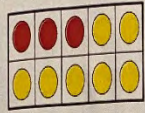
Objective achieved: ✓

I can solve problems using related facts.

I can use and understand related facts.

I can use and understand related facts, using pictorial representations.

1 a) What calculation is represented?



$3 + 7 = 10$ ✓

b) What calculation is represented?



$30 + 70 = 100$ ✓

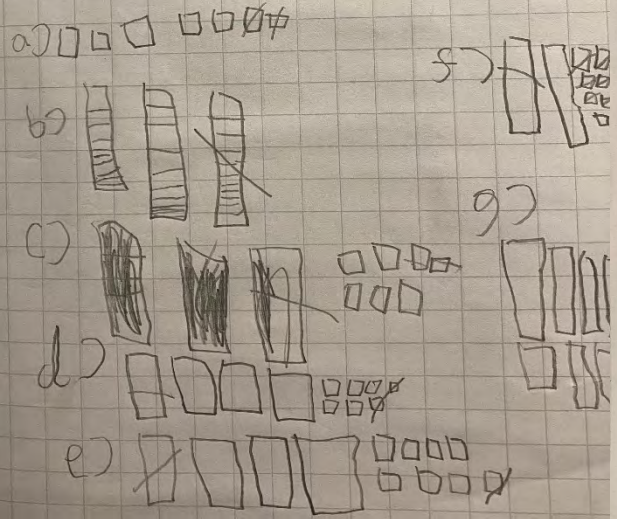
What is the same about part a) and part b)?
 What is different?

2 a) Write six different number bonds to 10

- $1 + 9 = 10$ ✓
- $2 + 8 = 10$ ✓
- $3 + 7 = 10$ ✓
- $4 + 6 = 10$ ✓
- $5 + 5 = 10$ ✓
- $6 + 4 = 10$ ✓

Use base 10 to complete the subtractions.

- a) $7 - 2 = 5$ ✓
- b) $30 - 10 = 20$ ✓
- c) $37 - 12 = 25$ ✓
- d) $47 - 12 = 35$ ✓
- e) $48 - 11 = 37$ ✓
- f) $27 - 16 = 11$ ✓
- g) $63 - 61 =$
- h) $45 - 33 =$ *Try this*



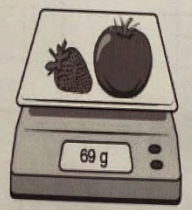
12.11.20
 ★ Star learners: can subtract a 2-digit number using partitioning.
 Can subtract a 2-digit number using pictorial representations.
 Can subtract a 2-digit number using concrete materials.

Big Question

The strawberry weighs 24 grams.

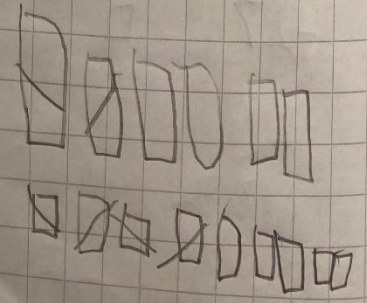


The strawberry and tomato together weigh 69 grams.



What does the tomato weigh?

45 g ✓



Examples of Maths Learning Year 2

Challenge

Fill in the missing numbers.

- a) $3 + 5 = 8$ ✓ $30 + 50 = 80$ ✓
- $30 + 50 = 80$ ✓ $80 = 50 + 30$ ✓
- b) $7 + 2 = 10$ ✓ $70 + 20 = 90$ ✓
- $70 + 20 = 90$ ✓ $90 = 70 + 20$ ✓



★ Star learners: can use column addition to add 2 digits to 3 digits.
 Can use column addition to add 2 digits to 3 digits, supported by concrete materials.
 Can use concrete materials to 2 digits to 3 digits.

Big Question

Rosie has 77 sweets.
 Mo has 121 sweets.

Which addition will find how many sweets they have altogether?

$$\begin{array}{r} 77 \\ + 121 \\ \hline 198 \end{array} \quad \begin{array}{r} 121 \\ + 77 \\ \hline 198 \end{array}$$

Explain your answer. *It doesn't matter which you use just first*



1 Work out the additions.

a)

Hundreds	Tens	Ones
2 blocks	5 rods	1 unit
+		
	3 rods	2 units
=		

H	T	O
2	5	1
+		
	3	2
=		
2	7	3

b)

H	T	O
3 green circles		7 red circles
+		
	4 yellow circles	2 red circles
=		

H	T	O
3	0	7
+		
	4	2
=		
3	4	9

c)

H	T	O
2	3	7
+		
	5	1
=		
2	8	8

d)

H	T	O
7	5	2
+		
	3	7
=		
7	8	9

Examples of Maths Learning Year 3

- 2 Complete the number sentences.
- a) $196 - 30 = 166$ ✓
 - b) $241 + 40 = 281$ ✓
 - c) $511 - 10 = 501$ ✓
 - d) $725 + 50 = 775$ ✓
 - e) $60 + 927 = 987$ ✓
 - f) $975 - 40 = 935$ ✓
 - g) $847 = 827 + 20$ ✓
 - h) $487 - 70 = 417$ ✓
 - i) $392 - 90 = 302$ ✓
 - j) $275 + 50 = 325$ ✓
 - k) $5040 + 913 = 5953$ ✓
 - l) $429 - 0 = 429$ ✓

CHALLENGE

9 Here is a calculation with three missing digits.
 $726 + _0 - _0 = 7_6$
 All the missing digits are different.
 What could the calculation be?
 How many calculations can you find?

*2 7 746 and 4
 0 705 and 6 0 786*

Examples of Maths Learning Year 4



14.10.2020

7b. Find 3 different number sentences to complete this calculation.

$$\begin{array}{r} 2723 \\ + 3233 \\ \hline 5956 \end{array}$$

$3,956 + 2,723 = 5,956$

8b. Use the digit cards below to create a bar model adding a 3-digit number to a 4-digit number. You can use the digit cards multiple times.

1	2	3	6	9
---	---	---	---	---

4097	
3621	476

$400 + 600 = 1,000$

Has Joss made a mistake in the calculation below?

$$\begin{array}{r} 1,301 \\ + 3,211 \\ \hline 7,512 \end{array}$$

yes

$4,301 + 3,211 = 7,612$

14.10.2020

learners: can add two 4 digit numbers - no exchange.

Use column addition to find the total.

$$\begin{array}{r} 3074 \\ + 5325 \\ \hline 8399 \end{array}$$

Complete the calculation.

$7,486 + 2,403$

$$\begin{array}{r} 7486 \\ + 2403 \\ \hline 9889 \end{array}$$

What number is missing from the calculation?

$$\begin{array}{r} 5859 \\ - 3256 \\ \hline 2603 \end{array}$$

$3,256 + 2,603 = 5,859$

True or false? Use column addition to find the answer.

$19,992$

$$\begin{array}{r} 9712 \\ + 9712 \\ \hline 19424 \end{array}$$

false

6.11.20 continued

Complete the calculations.

a)

	H	T	O
	2	7	
-	1	3	2
	1	4	5

c)

Th	H	T	O
9	4	5	
-	2	3	6
	7	1	9

b)

Th	H	T	O
7	1	7	3
-	2	8	1
	7	3	2

Complete the calculations.

a) $3,270 - 1,320$ b) $7,673 - 721$ c) $9,845 - 1,921$

How the calculations using the column method.

A $\begin{array}{r} 231270 \\ - 1320 \\ \hline 1950 \end{array}$

B $\begin{array}{r} 96673 \\ - 721 \\ \hline 6924 \end{array}$

C $\begin{array}{r} 9845 \\ - 1921 \\ \hline 7924 \end{array}$



THE BIG QUESTION:

	Breaststroke	Backstroke	Butterfly	Freestyle	Total
Yellow	405	960	210	395	1,970
Red	650	420	210	650	1,930
Green	210	500	400	370	1,480
Blue	265	210	610	510	1,675
Total	1,610	2,090	1,430	1,925	7,055

Work out the missing scores and complete the table.

Whole class modelled work.

Write 3 questions for your partner to answer about the information on the table.

4 0 5
+ 6 5 0
2 1 0

1 2 6 5
1 8 1 0
- 1 2 6 5

0 5 4 5
3 4 5
+ 2 1 0
6 1 0
5 1 0
+ 6 7 5

1 1
4 0 5
+ 2 1 0

6 1 5
1 0 1 0

1. What is the difference between breaststroke and backstroke?
2. Which team came first?
3. Which team came last?

12.11.20	Objective achieved:
★ Star learners:	
I can confidently read timetables to extract information and generate my own questions about timetables.	
I can read timetables to extract information and generate my own questions about timetables.	
I can read timetables to extract information.	✓

Here is the Saturday timetable for the main pool at a local leisure centre.

10:00	10:30	11:00	11:30	12:00	13:00
1	2	3	4	5	6
7	8	9	10	11	12

Swimfit Lane Swimming Family Swim
 Children's Swimming Lessons Swim For All Swim For All
 Fun Swim Under 14s Only Adult Swimming Lessons

d) because there are 2 lessons at 10:00

12.11.20



Star learners:

Objective achieved:

I can confidently read timetables to extract information and generate my own questions about timetables.

I can read timetables to extract information and generate my own questions about timetables.

I can read timetables to extract information.

✓ 1

This is the train timetable from Leeds to London.

Leeds	12:15	12:45	13:15	13:45	14:15
Wakefield	12:28	12:58	13:28	13:58	14:28
Doncaster	12:47	13:19	13:47	14:19	14:47
Grantham	13:18	—	14:18	—	15:18
Peterborough	—	14:10	—	15:10	—
Stevenage	14:04	—	15:04	—	16:04
London	14:31	15:01	15:31	16:01	16:31

13:58 + 2 =
14:00 + 2hr =
16:00 + 3 = 2hr 3m

The table shows the number of ice creams sold in a shop last week.

Day	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Ice creams sold	15	27	13	19	2	46	38

The shop sold more ice creams in total on Saturday and Sunday than during the rest of the week.



Do you agree with Alex? **YES**

Explain your reasons.

Saturday and Sunday sold 84 and the rest sold 66

38 + 46 = 84
15 + 27 + 13 + 19 + 2 = 66

Class 5B did a survey to find out the types of pets children had at home.

Dog	Cat	Hamster	Rabbit	Goldfish
###11	###			###



Dora

There are 24 children in the class.

We do not know how many children are in the class.



Rosie

There are more than 24 children in the class.



Amir

Who is correct? **Rosie**

Explain your answer.

Some people might not have pets and some people might have more than one.

CHALLENGE:

This table shows the 10 largest stadiums in Europe.

Stadium	City	Country	Capacity
Camp Nou	Barcelona	Spain	99,500
Wembley	London	England	90,000
Signal Iduna Park	Dortmund	Germany	81,569
Santiago Bernabéu	Madrid	Spain	80,044
San Siro	Milan	Italy	80,019
Stade de France	Paris	France	80,000
Lozhniko Stadium	Moscow	Russia	78,300
Anatoliy Gromyko Stadium	Istanbul	Turkey	76,092
Old Trafford	Manchester	England	75,811
Allianz Arena	Munich	Germany	75,000

True or False?

- The fourth largest stadium is the San Siro. **False**
- There are 6 stadiums with a capacity of more than 80,000. **True**
- Three of the largest stadiums are in England.

The 12:45 from Leeds arrive

15:01

The 13:58 train from Wakefield take to get

2hr 3mins

Does the 14:15 train stop?

Wakefield, Doncaster, Grantham, Stevenage and Peterborough

It take to get from Grantham to Stevenage?

16mins

Grantham at 13:30, how long will you need to

13:30 - 14:18 = 48 mins

Examples of Maths Learning Year 5

Q1

Draw lines between the fractions that are equivalent.

$\frac{3}{4}$	$\frac{12}{80}$ ✓
$\frac{6}{16}$	$\frac{12}{32}$ ✓
$\frac{5}{8}$	$\frac{10}{24}$
$\frac{5}{12}$	$\frac{27}{36}$ ✓
$\frac{3}{20}$	$\frac{15}{24}$ ✓

2 marks

Q2

Marley says, "8,849,842 rounded to the nearest thousand is 8,849,000."

Explain why Marley is incorrect.

Marley is incorrect because he rounded down not up, the correct answer is 8,850,000.

Star Learners: can multiply four-digit numbers by two-digit

1. $3,257 \times 4 = 13,024$

I know this is wrong by looking at the ones digit.

$$\begin{array}{r} 3257 \\ \times 4 \\ \hline 12008 \end{array}$$

Yes. How do you

2. Complete the multiplications.

a) $\begin{array}{r} 1235 \\ \times 53 \\ \hline \end{array}$ b) $\begin{array}{r} 4036 \\ \times 24 \\ \hline \end{array}$ c) $\begin{array}{r} 6978 \\ \times 76 \\ \hline \end{array}$

a) $\begin{array}{r} 1235 \\ \times 403 \\ \hline 3705 \\ 4900 \\ 12350 \\ \hline 49755 \end{array}$ b) $\begin{array}{r} 161 \\ \times 180 \\ \hline 12880 \end{array}$

c) $\begin{array}{r} 6978 \\ \times 76 \\ \hline 41868 \\ 48860 \\ \hline 470328 \end{array}$

3. Write the correct multiplications to complete the calculations.

$1,247 \times 37$ $2,031 \times 29$ $2,413 \times 23$

$$\begin{array}{r} 1247 \\ \times 37 \\ \hline 8729 \\ 42860 \\ \hline \end{array}$$

$$\begin{array}{r} 8729 \\ \times 29 \\ \hline 78561 \\ 175122 \\ \hline \end{array}$$

$$\begin{array}{r} 18279 \\ \times 23 \\ \hline 54837 \\ 365580 \\ \hline \end{array}$$

Correction:

$$\begin{array}{r} 4036 \\ \times 24 \\ \hline 16144 \\ 80720 \\ \hline 96864 \end{array}$$

$$\begin{array}{r} 6978 \\ \times 76 \\ \hline 41868 \\ 48860 \\ \hline 530328 \end{array}$$

Examples of Maths Learning Year 6



Star Learners: can consolidate place value

Your record company 'Drop the Mic Records' is preparing for the end of year awards show, an event which celebrates the best artists on their books. The managing director has given top ten artists and wants you to decide which four have been the most successful and should be nominated for the awards.

1. The first category is Best Selling Artist. Rank the artists based on number of tracks streamed from best selling (1) to least sales (10).

Artist	Tracks Streamed	Ranking
Jerome De Souza	8,434,679	7 ✓
Mylene Robb	8,589,956	7 ✓
EZee	7,465,767	6 ✓
Shannon Grace	7,465,980	9 ✓
Xtream	9,003,004	8 ✓
Bobbie Fry	9,003,998	3 ✓
Ape Shape	4,678,567	2 ✓
Northern Quarter	8,898,435	10 ✓
Revolving Doors	8,989,345	5 ✓
STEAL	9,304,098	4 ✓



Star Learner:

With support, I can use factors for division. I can use factors for division in the context of problem solving and reasoning.

4. Ben is calculating $3,024 \div 18$

a) Tick the methods that would give the correct answer.

$3,024 \div 9 = 336$ ✓ $3,024 \div 18 = 168$ ✓ $3,024 \div 9 = 336$ ✓

b) What other methods could Ben use to calculate $3,024 \div 18$?

$3,024 \div 18 = 168$ ✓

5. Use factors to complete these divisions.

$40 \div 20 = 2$ ✓

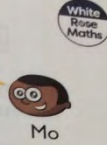
$60 \div 10 = 6$ ✓

$120 \div 15 = 8$ ✓

$1,200 \div 15 = 80$ ✓

$4 \times 2 = 8$ ✓

My number is 1,350 when rounded to the nearest 10



My number is 1,400 when rounded to the nearest 100

Both numbers are whole numbers. What is the greatest possible difference between the two numbers?

Class discussion

nearest 10 = 1350 range 1345 - 1355
nearest 100 = 1400 range 1400 - 1400

$1345 - 1400 = 104$ difference.

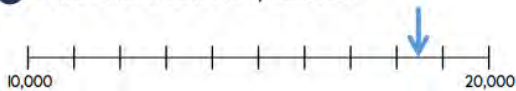
Year 6

Place Value Assessment

Rose Maths

Name _____

1 What numbers are shown by the arrows?



1 mark



1 mark

2 Here are some digit cards.

WICKERSLEY PARTNERSHIP TRUST END OF YEAR 2

3 Complete the missing numbers.
 $127,084 = 100,000 + 20,000 + \text{-----} + 80 + 4$
 $\text{-----} = 7000 + 500 + 3$

2 marks

4 The length of four rivers is shown in the table.

River	Length in km
Mississippi	6,275
Saint Lawrence	3,058
Nile	6,853
Rio Grande	3,057

Put the rivers in order of their length starting with the shortest.

Round the length of the Mississippi river to the nearest 100 km.

_____ km

1 mark
 1 mark

5 The number line shows the temperature at 12 am and 12 pm on Monday in a town.
 The difference between the temperatures is 14°C.

Assessment

2017 national curriculum tests

Key stage 2

YEAR 5
 READING AND WRITING NUMBERS

Read, write, order and compare numbers to at least 1,000,000 and determine digit.

Task A

Respond to oral or written questions such as:

- Read these: 3,010,800 630,002 342,601 2,48

- Which is less: 4 thousands or 41 hundreds

- Put in your calculator display:

Ninety-nine thousand, five hundred and two etc.

Make the biggest/smallest integer you can with these digits: 8, 3, 0, 7, 6, 0, 2.

Write your number in words.

The banner features the Puma logo and the text 'Progress in Understanding Mathematics Assessment SPRING 5'. Below the banner is a student record form with fields for name, sex, date of birth, chronological age, year, and month. A table below the form shows columns for 'Number' and 'Operations' with empty rows.

Reading and writing numbers	Read and write numbers to at least 100 in numerals and in words. Read and write numbers to at least 100 in numerals and in words.	
Place Value	Recognise the place value of each digit in a two-digit number (tens, ones). Partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus. Partition any two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources to help them.	
Counting	Count in tens, fives and tens and use this to solve problems. Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	
Addition/subtraction mental skills	Add and subtract two-digit numbers and ones where no regrouping is required, explaining their method verbally, in pictures or using apparatus (25+3, 18-3). Add and subtract two-digit numbers and tens where no regrouping is required, explaining their method verbally, in pictures or using apparatus (23+5, 18-3). Add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. 48 + 35, 72 - 17). Recall at least four of the six number bonds for 10 and (equal) sets of associated facts (8+4, 10 fingers (5+5, +30, and 30-6 = 4)). Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. if 7 + 3 = 10, then 12 + 3 = 20; if 7 - 2 = 5, then 17 - 2 = 15; leading to if 14 + 3 = 17, then 3 = 14 - 17, 17 - 14 = 3 and 17 - 3 = 14).	
Estimating / Checking	Recognise and use the inverse relationships between addition and subtraction and use this to check calculations and solve missing number problems. Estimate to check answers to a calculation are reasonable.	
Addition and subtraction problems	Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving number, quantity and measure.	
Multiplication and division mental skills	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	
Multiplication and division calculation	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.	

Mathematics

Paper 2: reasoning

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