

# St Mary Redcliffe Primary School

## Maths Impact



# Summary of Impact Evidence

- ▶ Within these slides you will see:
- ▶ Examples of maths work from the children's books across EYFS – Year 6.
- ▶ Photographs of learning environments
- ▶ Planning examples

# Contents

- ▶ p4 – 6: EYFS Evidence
- ▶ p7 – 13: Year 2 Evidence
- ▶ p14 – 20: Year 4 Evidence
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- ▶ P35 – 42: Learning Environment Examples
- ▶ P43 – 62: Planning – White Rose and Class Examples

EYFS

# EYFS — Evidence from EEXAT. Maths activities taken from White Rose. The children have been practising their counting and adding whilst using concrete resources and part-part-whole models.



[redacted] took part in a reasoning activity, where we were comparing ages of 1 - 3 year olds. She said 'I think he is the oldest because he is three years old and the others are 2 and 1.' With the group, she was able to order them correctly by their ages. She then decorated two diya lamps with jewels. She was able to find the total and a create a part-part-whole model. Whilst I was demonstrating the activity, I asked Penelope how she knew I had 7. She said "because 3 add 3 is 6 and 3 add 4 is one more so I know it is seven."

## Statements

C&L > Speaking (i) 61 - 66 months

Maths > Numbers (i) 55 - 60 months

Maths > Numbers (ii) 55 - 60 months



[redacted] counted 1:1 all the fish in her ocean up to 15 in Spanish and English! She spread out some fish between two bowls and counted them to find the total. She wrote the number of fish in each bowl.

## Statements

Maths > Numbers (i) 49 - 54 months

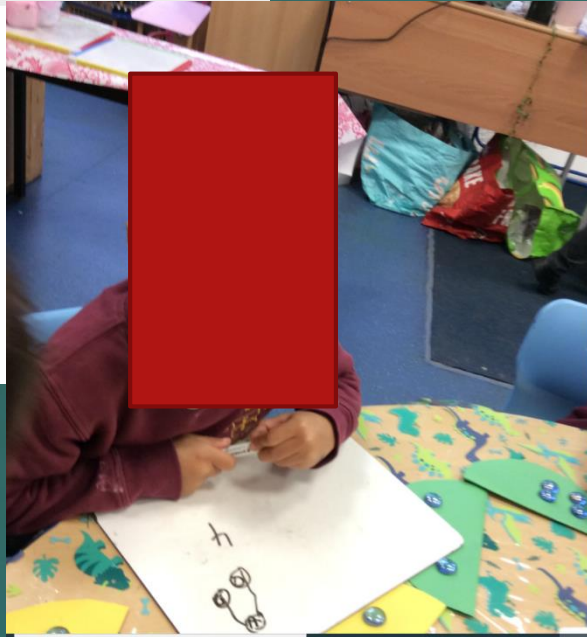


practised counting 10 objects with 1:1 correspondence. He then made an 'All about 3' board.

### Statements

Maths > Numbers (i) 49 - 54 months

Maths > Numbers (ii) 43 - 48 months



took part in a reasoning activity, where we were comparing ages of 1 - 3 year olds. First, he said 'I think she is the oldest because it is the biggest picture.' After talking with the group he was able to order them correctly by their ages. He then decorated two diwa lamps with jewels. He was able to find the total and create a part-part-whole model.

### Statements

Maths > Numbers (i) 55 - 60 months

Maths > Numbers (ii) 55 - 60 months

C&L > Speaking (i) 55 - 60 months



took part in a reasoning activity, where we were comparing ages of 1 - 3 year olds. After talking with the group he was able to order them correctly by their ages. He then decorated two diwa lamps with jewels. He was able to find the total and create a part-part-whole model.

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C&L > Speaking (i) 55 - 60 months

Maths > Numbers (i) 55 - 60 months

Maths > Numbers (ii) 55 - 60 months

Differentiated support through concrete resources and visual frames



Year 2

# Year 2 (Class 1) – Evidence of reasoning and problem solving.

LA (PP)

MA (PP)

HA

**LO: To compare different numbers**  
Make each of these number using base ten then draw pictorial representations for each of these numbers.

13

23

9

15

26

Now order the numbers from smallest to largest.

9 | 3 | 15 | 23 | 26

15 | 11 | 8 | 0

**15.10.2020/ 16.10.2020**  
**LO: To identify, represent and estimate numbers using different representations including the number line.**  
**LO: To count in steps of 2, 5 from 0, and in tens from any number, forwards and backwards.**  
**Hot Task: Place Value**

MY NUMBER LINE 0 TO 10  
0 1 2 3 4 5 6 7 8 9 10

MY NUMBER LINE 0 TO 10  
0 1 2 3 4 5 6 7 8 9 10

MY NUMBER LINE 0 TO 10  
0 1 2 3 4 5 6 7 8 9 10

You have worked independently to count in steps of 2s and 5s

Complete the track below:

3 | 2 | 9 | 12 | 12

15 | 11 | 8 | 0

3 | 2 | 9 | 12 | 12

**15.10.2020/ 16.10.2020**  
**LO: To identify, represent and estimate numbers using different representations including the number line.**  
**LO: To count in steps of 2, 3 and 5 from 0, and in tens from any number, forwards and backwards.**  
**Hot Task: Place Value**

Where would 36 go on each of the number lines?

0 100

0 40

30 40

What numbers are represented?

3 6 4

Use the number line to help you complete the sentence.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

The numbers that are circled are counting up in steps of 3

I notice that the 3 times table goes on 3, 6, 9, 12

What pattern do you notice? 2, 4, 6, 8, 10, 12

You have worked hard to count in steps of 3

**19.10.2020/20.10.2020**  
**Cold Task**  
**LO: To recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.**

Today we have worked hard using a bar model to recall addition and subtraction facts. I know that  $14 + 11 = 25$  and I also know that  $25 - (4 + 1) = 20$ .

Today we have worked hard using a bar model to recall addition and subtraction facts.

tens but it does not matter is the ones are bigger it matters is the tens are bigger than the ones different number. So if you had the number 34 and 52 even the

33 then it was 34 and then it was 37 then it was 43 and the finally one was 53.

What do you notice about the numbers that are circled? Continue the pattern.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Complete the number sequences.

15 12 39 36 27 24 21 18

9 6 3 0

I also looked at the tens and ones column

I notice that the the 3 times table goes even odd.

**15.10.2020/ 16.10.2020**  
**LO: To identify, represent and estimate numbers using different representations including the number line.**  
**LO: To count in steps of 2, 3 and 5 from 0, and in tens from any number, forwards and backwards.**  
**Hot Task: Place Value**

Order the numbers below. Which would be the fourth number?

33 53 37 29 34 43

Explain how you ordered them.

So I put a line and the first one it was 29 and it was

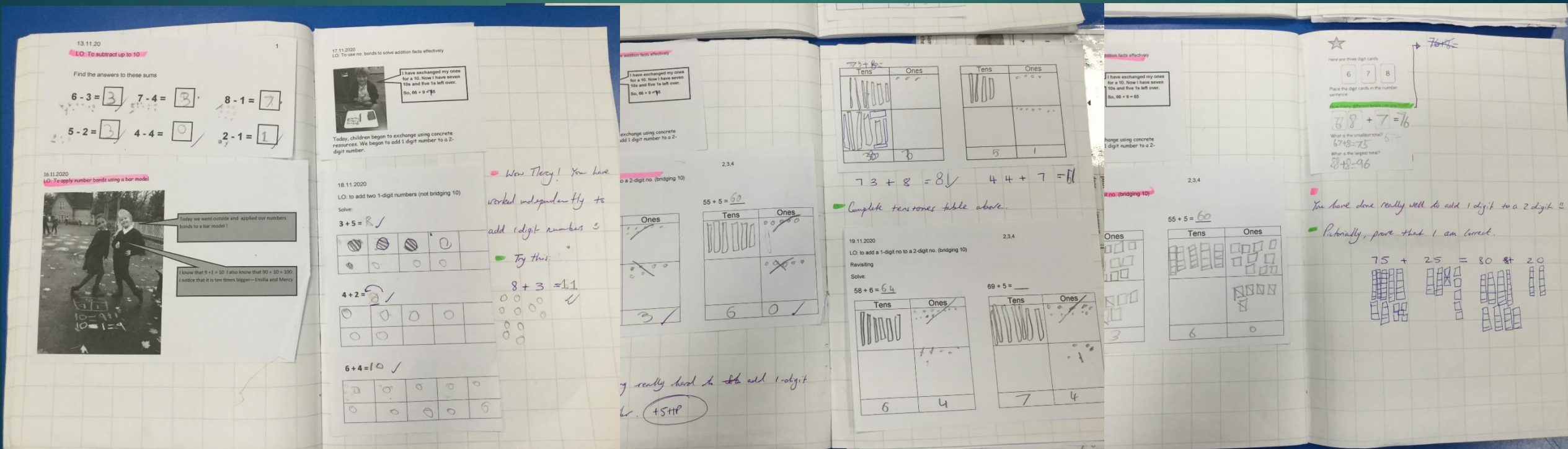


# Year 2 (Class 1) – Photographs used to capture practical evidence. Next steps written to deepen maths understanding

LA (PP)

MA (PP)

HA

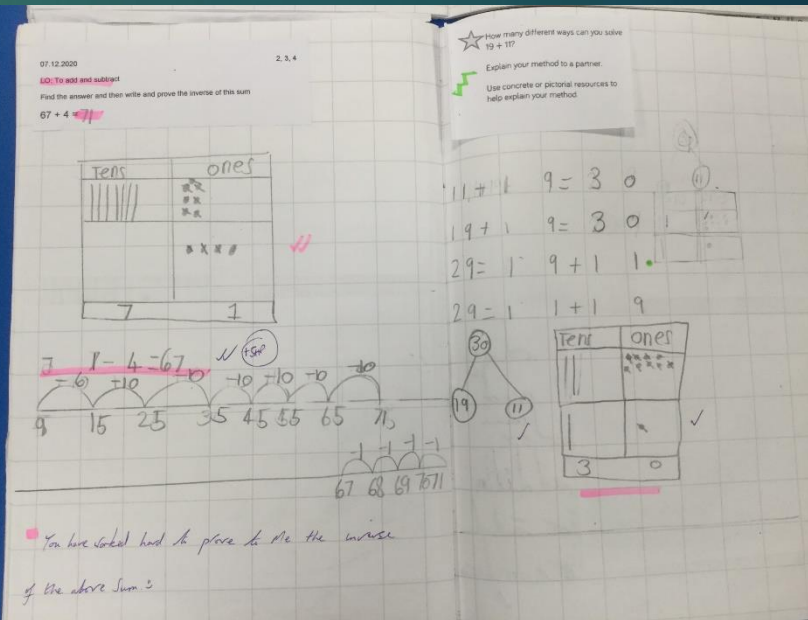
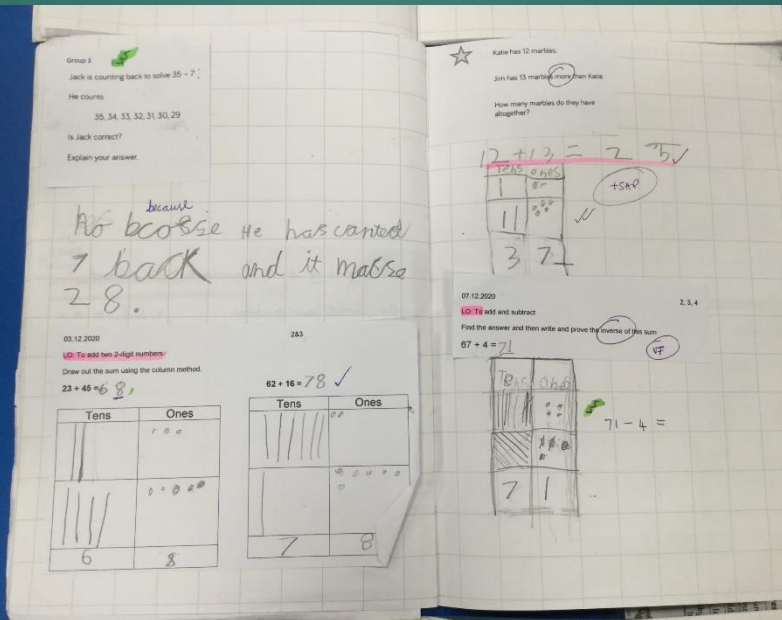
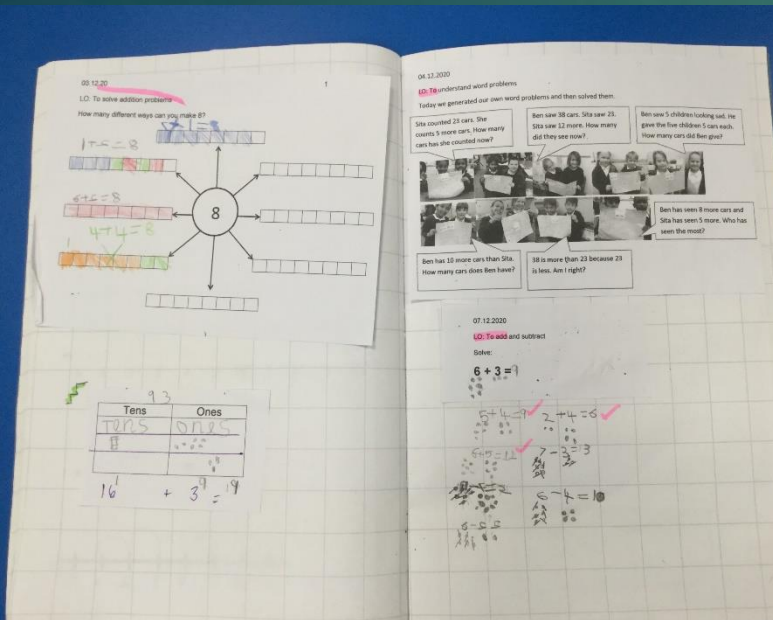


# Year 2 (Class 1) – Evidence of part-part whole models to support the children’s understanding. Live marking to deliver instant feedback.

LA (PP)

MA (PP)

HA

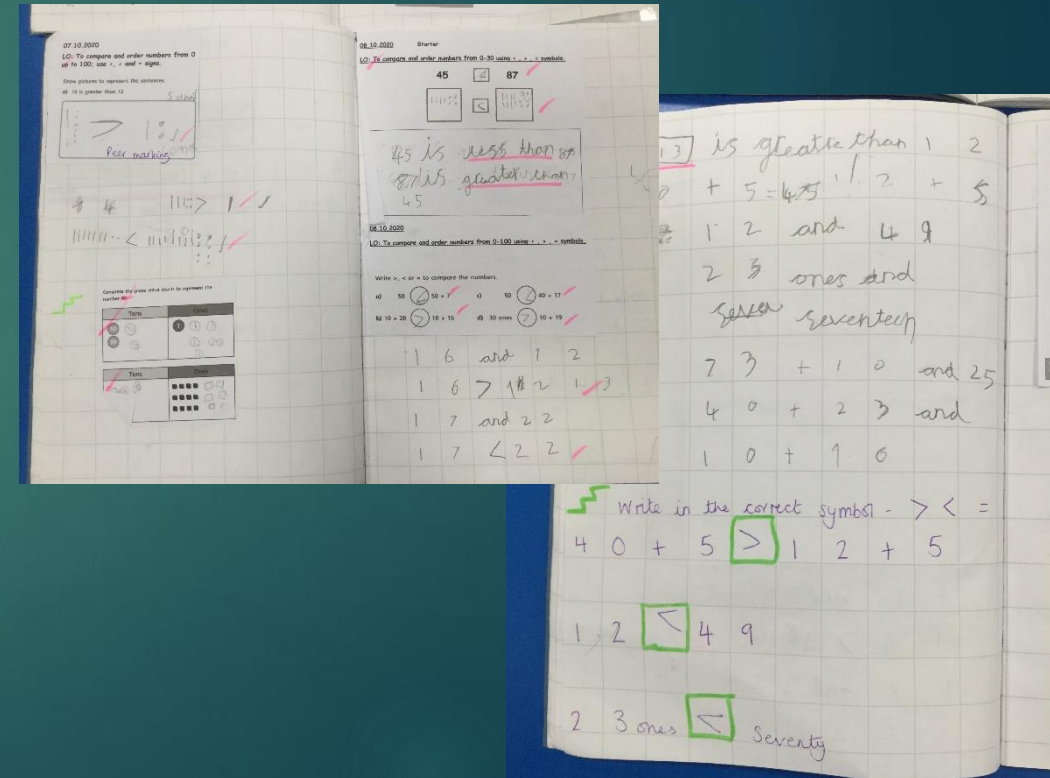
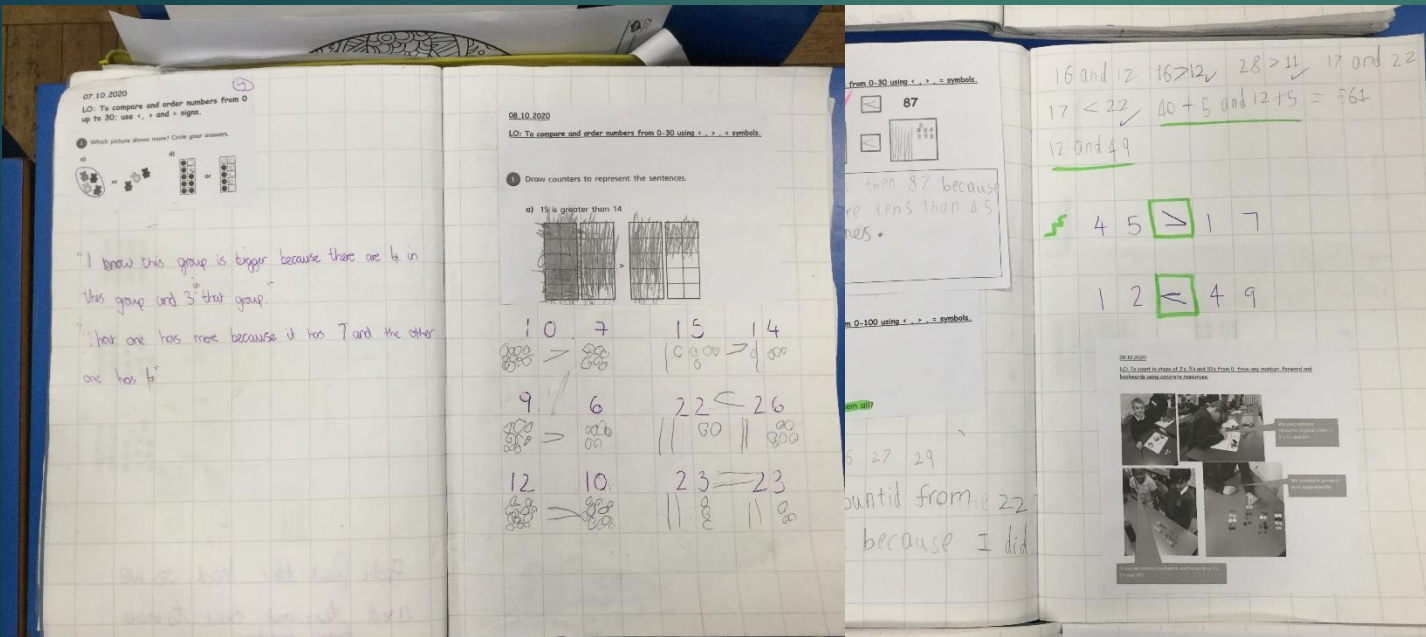


# Year 2 (Class 2) – Practical resources and next steps to address misconceptions.

LA (PP)

MA

HA (PP)

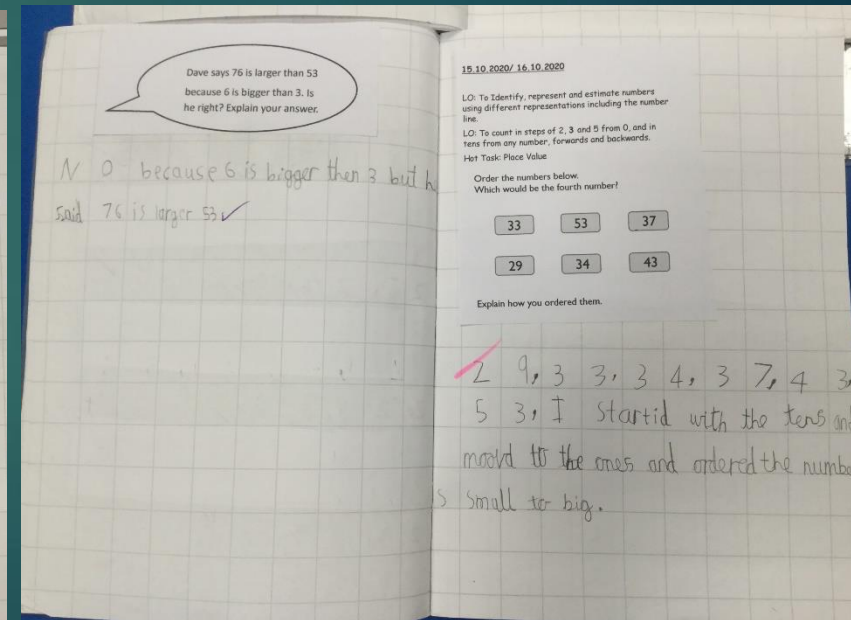
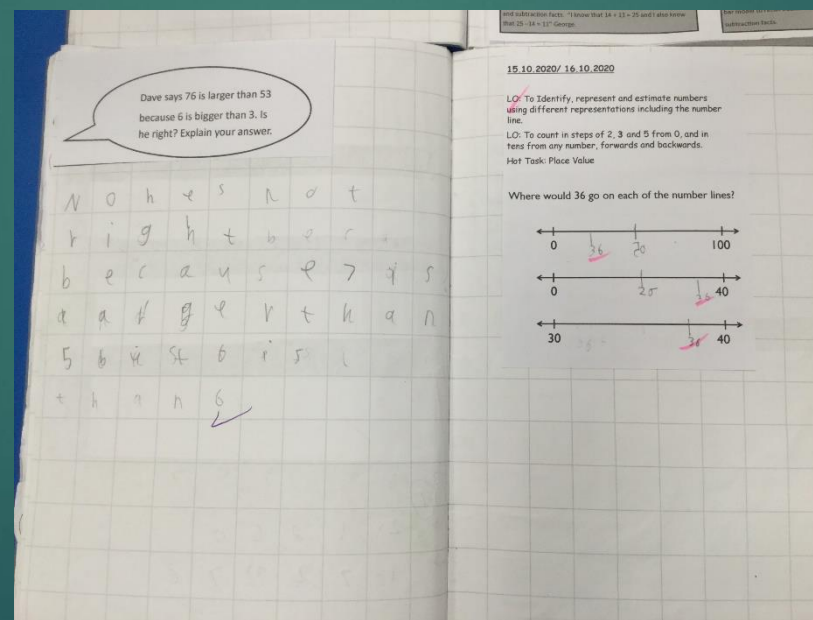
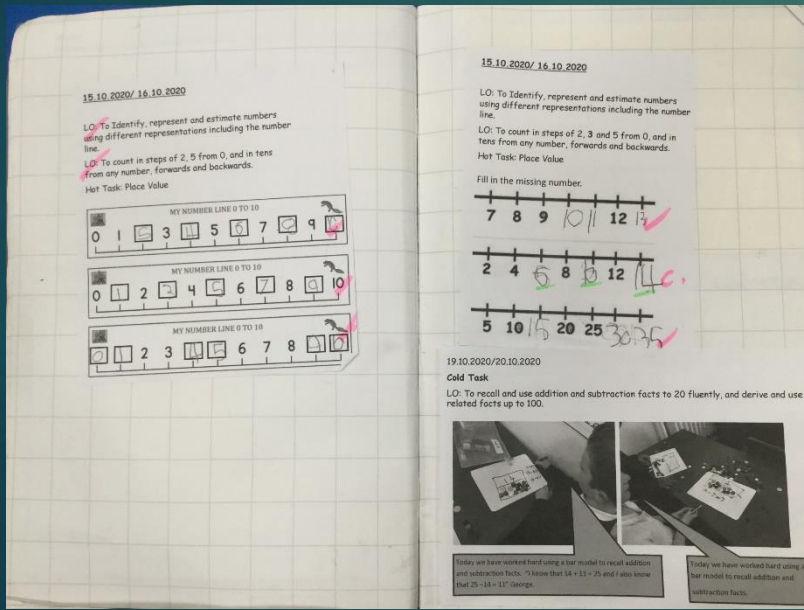


# Year 2 (Class 2) – Cold and Hot tasks used to monitor progress. Opportunities to solve reasoning problems.

LA (PP)

MA

HA (PP)

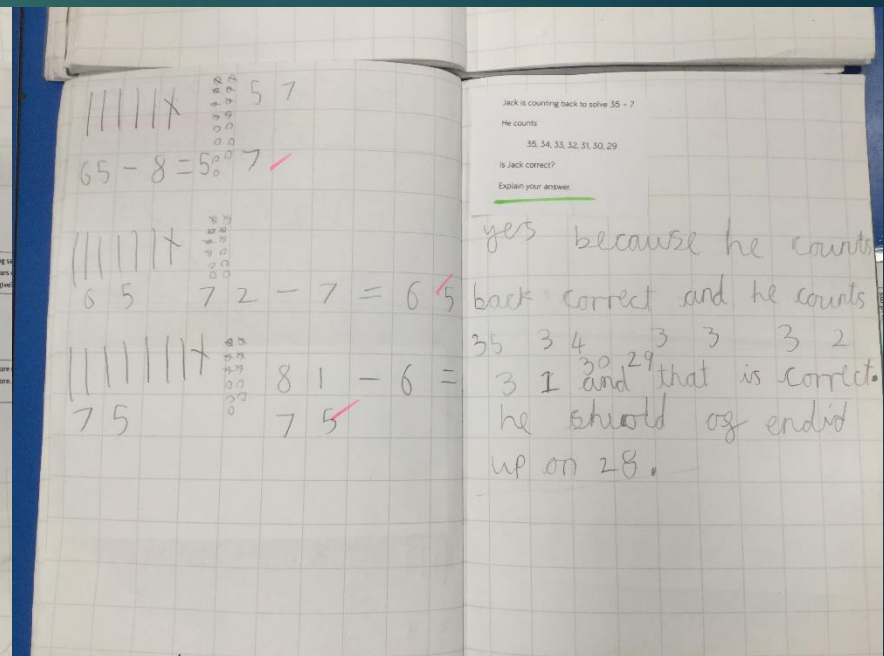
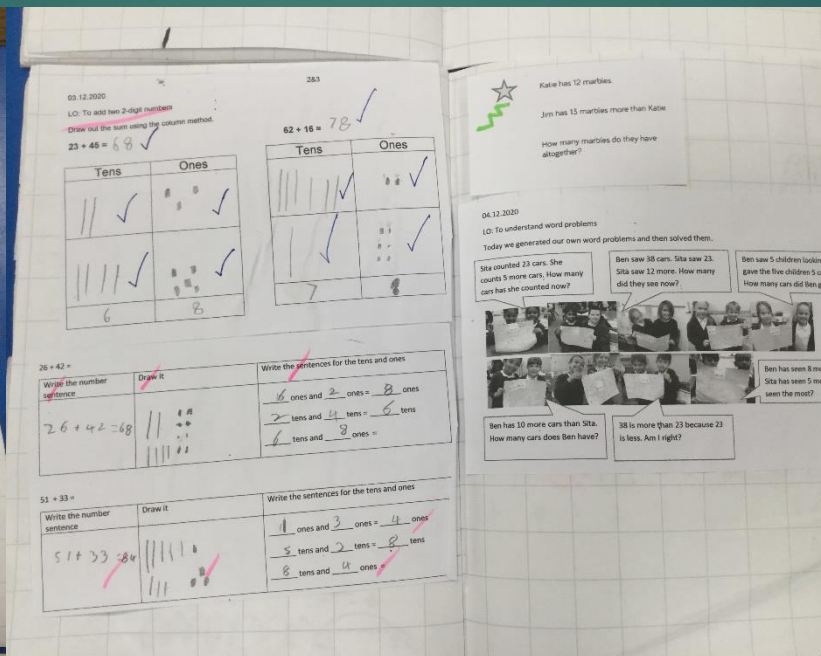
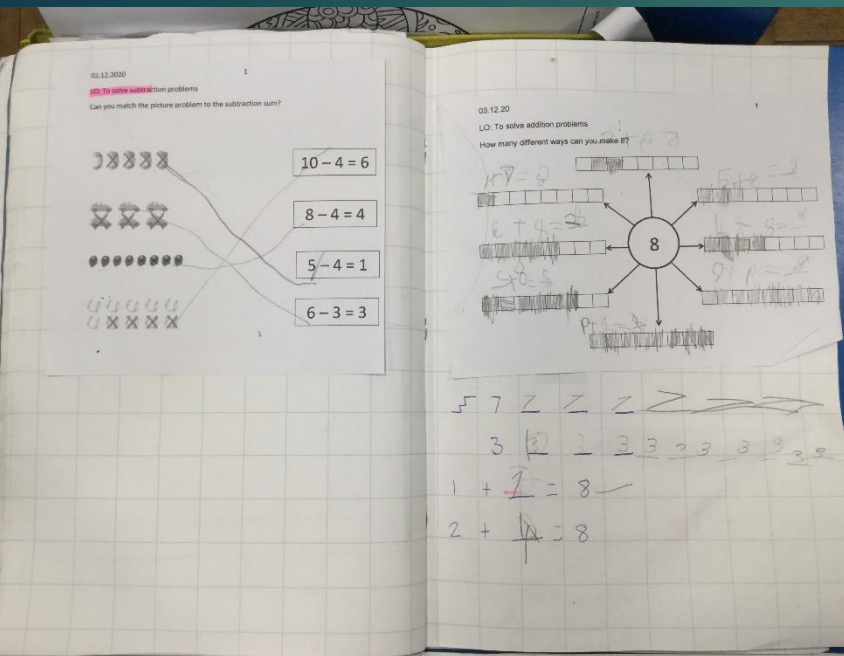


# Year 2 (Class 2) – Consistent approach between classes. The same use of number frames to support place value.

LA (PP)

MA

HA (PP)



Year 4

# Year 4 (Class 1) – Chilli challenges to indicate challenge. Next steps given to provide feedback.

LA (PP)

MA (PP)

HA

MILD

How many mats are there?

What numbers are represented?

10

th	h	t	o
6	3	5	2


Mild 1  
3 5 2 6 ✓  
Mild 2  
1 6 5 2 ✓  
Mild 3  
5 0 1 6 ✓

Write 10, 352 as words

ten thousand and three hundred and eighty two

29,920

L.O.T.O show numbers up to 10000



During our maths investigation, we used different resources such as dienes, base 10 counters, and number beads to choose different ways to represent numbers up to 1000.

30,920

L.O.T.O represent 1,000; 100; 10 and 1

1. 200 + 2 + 80 = 282 ✓  
2. 500 ✓  
3. 30 ✓  
4. four thousand three hundred eighty two ✓  
5.

6. 3, 2, 3, 5 ✓  
7. 3, 0, 3, 5 ✓

8. I know that it is gals because there are no ones just thousands, hundreds and tens no ones for its 1, 3, 4, 0 ✓

Th	H	T	O
1000	100	10	0

9.

SPICY

1. M is trying to make the number 3,282. He represents it on a place value chart.

Th	H	T	O
3	2	8	2

2. Use base 10 or place value counters to make these numbers  
a) 2,381 b) 1,000 c) 3,303

3. What number is represented?

Th	H	T	O
2	3	8	2

Write your answer in hundreds and words

Spicy! M is wrong because he put them in the wrong place.  
5x wrong with wrong wrong wrong

EXTRA HOT

1. Circle the base 10 or counters to show each number

a) 2,051

b) 5,124

2. Write the value of the digit in bold

a) 7,120 b) 3,915 c) 2,004 d) 671 e) 5,918

3. Write a 4-digit number with 7 tens  
Write a 3-digit number with 7 tens  
Write a 2-digit number with 7 tens

4. Here are some clues to a 4-digit number

- There are 6 hundreds
- There are more tens than ones
- The sum of the digits is 12

What could the number be? How many possible numbers can you find?

2) A) 7000 B) 9000 C) 4000 D) 7000 E) 1100  
3) 4372 ✓  
271 ✓  
73 ✓

4) Write 10,562 as words  
ten thousand - five hundred and sixty two ✓





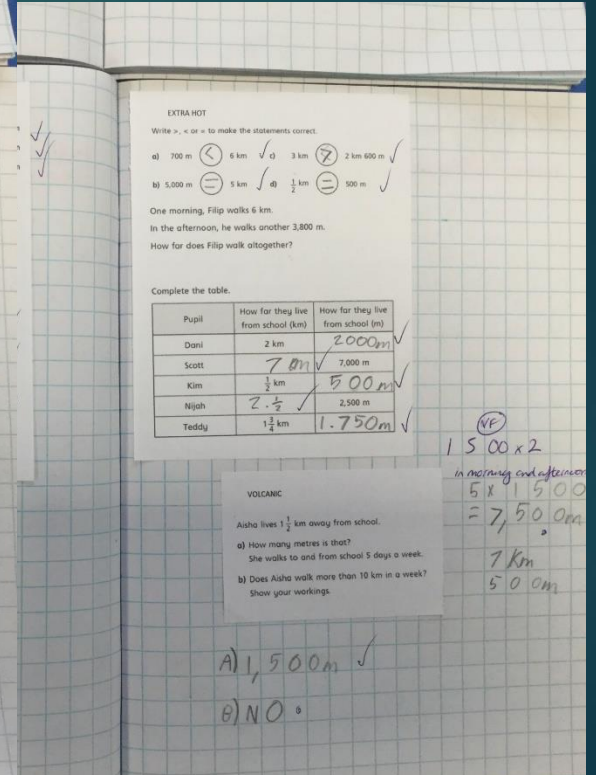
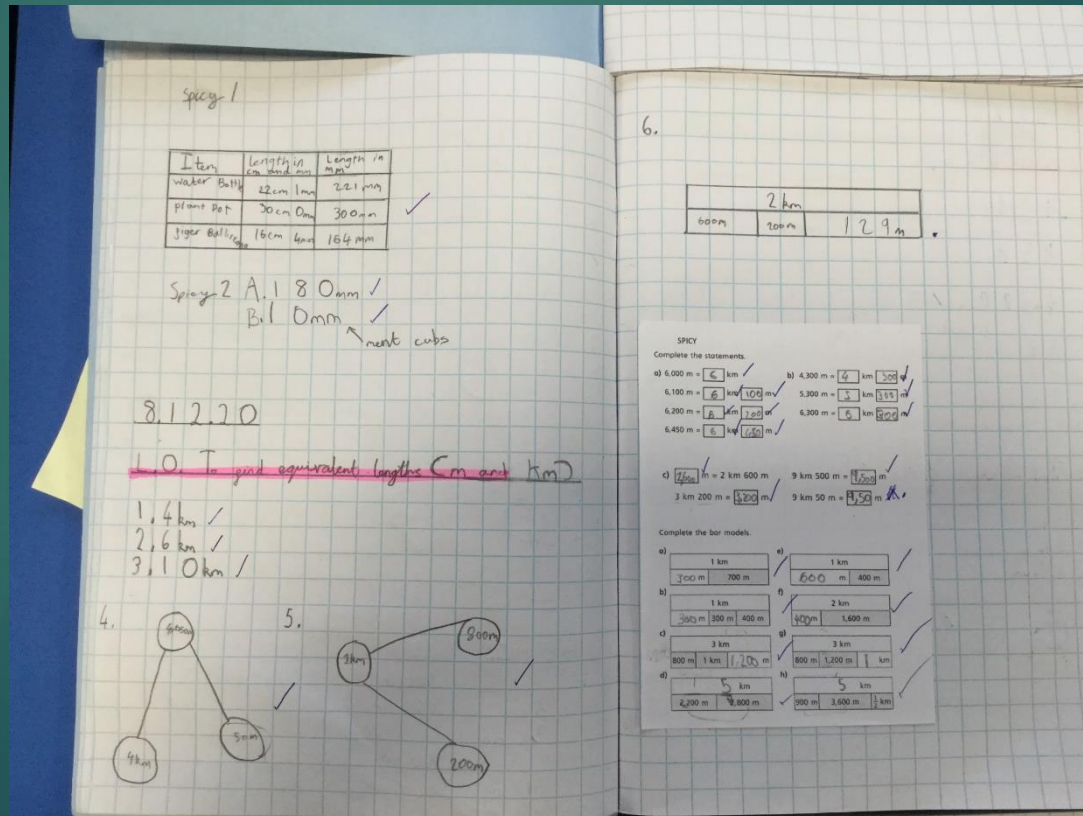
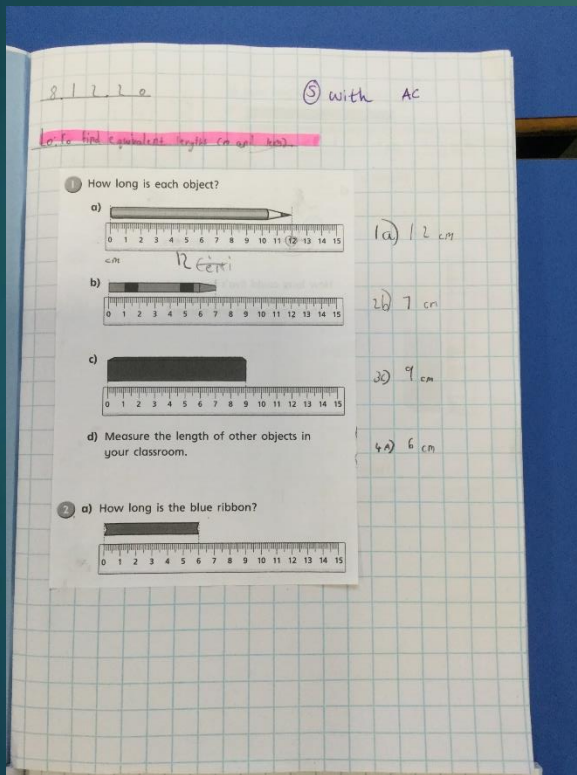
# Year 4 (Class 1) – Differentiated tasks with support.

Access to visual models and verbal feedback to challenge deepening group.

LA (PP)

MA (PP)

HA



# Year 4 (Class 2) — LSA support for PP child. Examples of consistency across classes and opportunities for problem solving and reasoning.

LA (PP)

MA

HA

**30.9.20**  
**10. To represent 100%, 100%, 100% and 1.**

**MILD**  
1. How many rods are there?  
2. What numbers are represented?  
3. What number is represented?

**SPICY**  
1. Mia is trying to make the number 3,200. She represents it on a place value chart.  
2. Use base 10 or place value counters to make these numbers: 2,391, 1,250, 13,355.  
3. What number is represented?

**MILD**  
Complete the number sentences:  
a)  $2,999 + 2,000 = 4,999$   
b)  $2,999 - 2,900 = 99$   
c)  $2,909 - 1,000 = 1,909$   
d)  $2,999 - 1,000 = 1,999$   
e)  $2,999 + 100 = 3,099$   
f)  $2,999 + 10 = 3,009$

**30.9.20**  
**10. To partition numbers.**  
1. Complete the number sentences:  
a)  $2,999 + 2,000 = 4,999$   
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**EXTRA HOT**  
1. Circle the base 10 number(s) to show each number:  
a) 2,001  
b) 5,120  
2. Write the value of the digit in bold:  
a) 7,120   b) 3,915   c) 2,004   d) 121   e) 5,198  
3. Write a 4-digit number with 7 tens.  
Write a 4-digit number with 7 tens.  
Write a 2-digit number with 7 tens.  
4. Here are some clues to a 4-digit number:  
• There are 6 hundreds.  
• There are more tens than ones.  
• The sum of the digits is 22.  
What could the number be? Give many possible answers, as you can!

**EXTRA HOT**  
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**VOLCANIC**  
Place the numbers from 1 to 9 in the squares below so that the difference between joined squares is odd. (You must use each of the numbers once.)

7	2	3
6	1	8
5	4	9

Can you find some other ways to do this? Explain how you do this.

Yes, because I worked out that if you put odd numbers in the middle and even numbers on the corners and fill the rest in the even it will always work.

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# Year 4 (Class 2) – Children have been given time to respond to next steps. Verbal feedback has had an impact on the child's learning.

LA (PP)

MA

HA

15.10.20  
LO: To count in 50's.

**EXTRA MILD**

1 How many cards does each person have?

Filip	Eva	Mo	Asha

Teddy has 8 packs of cards.  
How many cards does Teddy have?

2 Complete the number tracks.

200	250	300	350	400	450	500	550
650	700	750	800	850	900	950	1000
650	600	550	500	450	400	350	300

3 Rosie is counting up in 50s from 0 to 1,000.

0, 50, 100 -

Which of these numbers will Rosie say?

505   750   75   350   240   900   950

because they are all counting in 50s and they have 0 and all multiples of 50 end in 0. (VF)

4 1 2 3 8 11 14

1, 2, 3, 8, 11, 14

2. Rosie wrote the numberline backwards. Expand your explanation because when you are counting down you don't go right yet.

3. A. 50, 75  
B. 4, 30  
C. 1, 1, 3  
D. 2, 6, 9  
E

151020

0. To count in 25s

**SPICY**

1 What numbers are the arrows pointing to?

a)

b)

2 Is this true or false? These scales will balance.

Explain your answer.

3 Dara has 28 sheets of stickers.

3225 x 29 = 7225 ✓  
3225 x 29 = 7500 ✓

CI know this because 4 x 25 is 100 and it means you just need to times it by that amount it says.

Complete extra hot.

**Extra hot**

1 Players in a game win coloured tokens.  
A blue token wins 50 points.  
An orange token wins 25 points.

a) Kim wins these tokens in round 1.

How many points does she win? 225  
Explain how you know.

b) By the end of the game, Kim has 600 points.  
How many more points has she won?  
What new tokens could she have won?

175 + 150 = 325  
She has 325 from 790 because it is the twenty gives them together and made 175 then I added the 50s together and made 150 and added them together to make 325.

2285

A) 425 because I converted the 25s into 50s and there were 8 and 1 remaining.

25 x 8 x 25 = 400 and 400 + 25 = 425.

B) 175 ✓

790 if goes to 715.

Two race tracks have been split into 25m intervals.

Race track A

Race track B

What errors have been made?

In race track A the mistake is the because its counting in 25s not 50s. In race track B the first mistake is 175 because it is counting up in 25s, the second mistake is 185 because 50 + 25 = 75 so 175 + 25 = 200 not 185. Then from the second mistake and gives us if the mistake was correct.

# Year 4 (Class 2) – Middle attaining group have access to deepening challenges.

LA (PP)

MA

HA

7.12.20 7.12.20  
LO: To find equivalent lengths (cm and m)

LO: Measuring using a metre stick or ruler.

How many cm in 1 metre? = 100 cm

door height = 2m 8cm = 208 cm

hand rail = 475 cm = 4m 75 cm

back case = 100 cm = 1m 00 cm

window = 151 cm = 1m 51 cm

rope = 50 cm

year 4 line = 6m 95 cm = 679 cm

book = 29 cm

If there are 100 cm in 1 metre. How many cm are there in 8 metres? 800 cm

How many centim in 2 1/2 metres? = 250 cm

Worked 1-1 jig.

8.12.20 Absent  
LO: To find equivalent lengths (cm and m)

- 1,000 cm = 10 m
- 250 cm = 2m 50 cm
- 6 m = 600 cm = 100 cm 2m 20 cm
- 1 1/4 m = 1m 100 cm 1/4 m = 25 cm  
1 1/4 m = 125 cm
- 300 cm = 3 m
- 475 cm = 4m 75 cm
- 325 cm = 3m 25 cm
- 9 m = 900 cm
- 6 1/2 m = 650 cm

Well done Zuzu! With support you worked the answers.

EXTRA HOT

Jack, Tommy and Alex took part in a hop, skip and jump competition.

Name	Hop	Skip	Jump	Total
Jack	20 cm	10 cm	1 m 10 cm	1 m 40 cm
Tommy	20 cm	1 m	1 m 10 cm	2 m 30 cm
Alex	75 cm	75 cm	1 m	2 m 50 cm

Complete the table to show the total distance each child travelled.

60 + 80 = 140

70 + 170 = 240

280 + 150 = 430

Order the bear's heights from shortest to tallest.

Bear	Height
Be	100 cm
Magnolia	100 cm
Yoyi	150 cm
Coco	200 cm
Toto	230 cm
Jajo	300 cm

38 + 23 = 61

38 + 23 = 61

38 + 23 = 61

LO: To subtract lengths.

10/12/20

5100 - 78 = 5022 = 4m and 22cm

SPICY

Complete the statements.

4) 5,000 m = 5 km

5) 4,300 m = 4 km 300 m

6) 100 m = 100 cm

7) 6,200 m = 6 km 200 m

8) 4,400 m = 4 km 400 m

9) 3 km 200 m = 3,200 m

10) 9 km 500 m = 9,500 m

11) 3 km 200 m = 3,200 m

12) 9 km 50 m = 9,050 m

Complete the bar models.

a) 1 km = 1,000 m

b) 1 km = 1,000 m

c) 2 km = 2,000 m

d) 800 m = 800 m

e) 1 km = 1,000 m

f) 2,200 m = 2,200 m

EXTRA HOT

Write >, = or < to make the statements correct.

a) 700 m < 7 km

b) 5,000 m = 5 km

c) 3 km > 2 km 800 m

d) 1 km > 100 m

e) 1 km > 100 cm

f) 1 km > 100 mm

One morning, Filip walks 6 km. In the afternoon, he walks another 3,800 m. How far does Filip walk altogether?

9 km 800 m

Complete the table.

Pupil	How far they live from school (km)	How far they live from school (m)
Dan	2 km	2,000 m
Scott	7 km	7,000 m
Kim	1/2 km	500 m
Nigh	2 1/2 km	2,500 m
Teddy	1 1/2 km	1,500 m

ALPHA

Write >, = or < to make the statements correct.

a) How many metres is that? 1 1/2 km = 1,500 m

b) She walks to and from school 5 days a week. Does Aisha walk more than 10 km in a week? 1500 x 5 = 7500 m = 7.5 km < 10 km



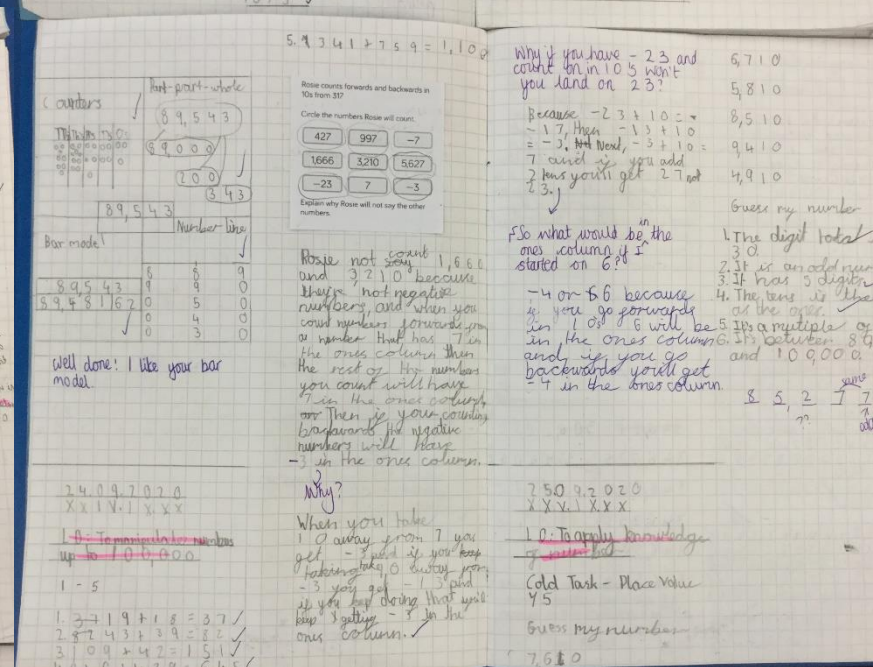
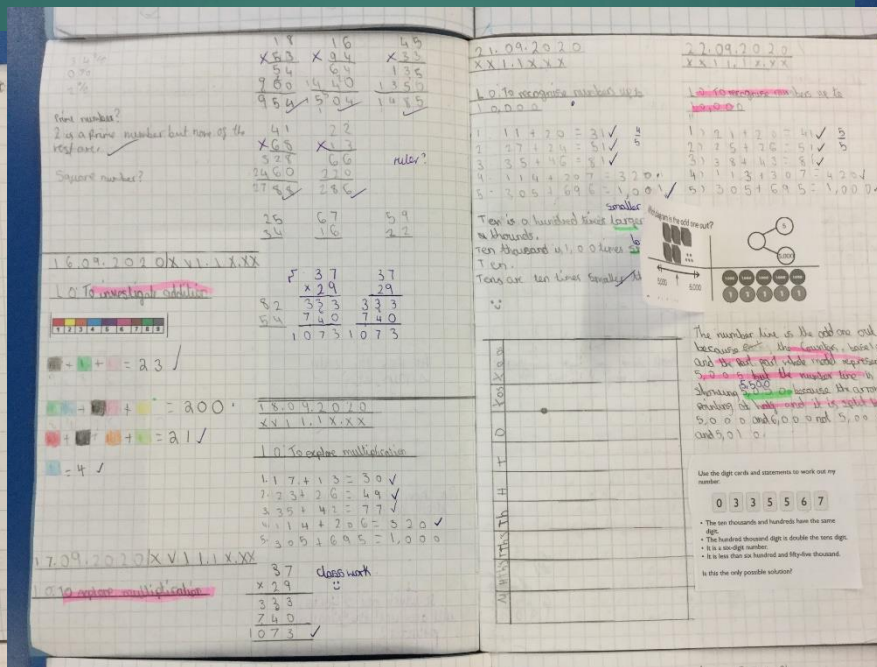
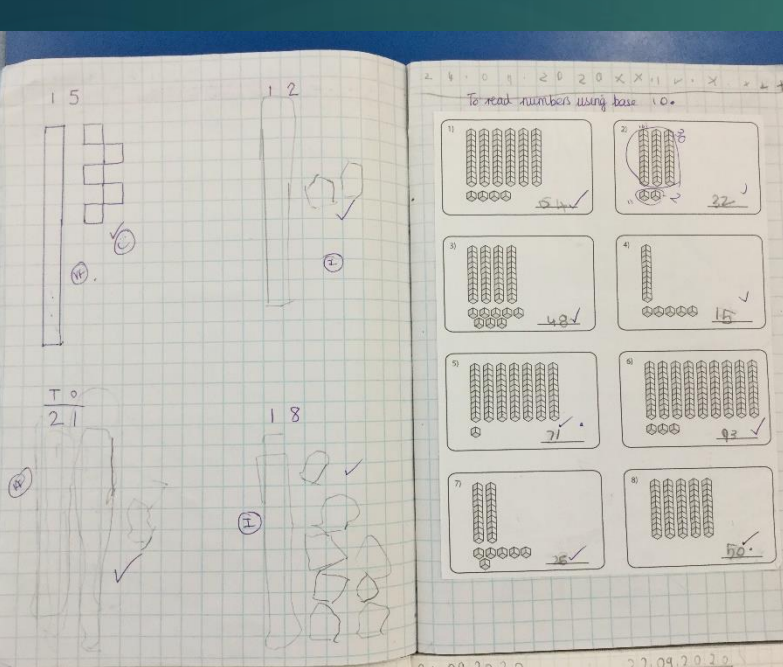
Year 6

# Year 6 (Class 1) – SEN pupil has separate planning and activities with support.

LA (SEN and PP)

MA (PP)

HA



# Year 6 (Class 1) – Bar model consistency across classes and school. LA child working on separate objectives with support.

LA (SEN and PP)

MA (PP)

HA

15 + 10 > 20

Cold task + and -

1 less than 19 is 18 ✓

1 more than 12 is 13 ✓

Draw 3 + 2 please -

3 + 2 = 5 ✓

19.10.20

L0: To understand the symbols >, < and =

oo > oo    4 > 3    3 < 4

oo > oo    7 > 2    2 < 7

oo < oo    4 < 5

oo is the same as oo

4 = 4

6 > 3    4 > 2    6 > 2

7 < 9    5 > 4    2 < 6

4 < 6    6 > 4    2 = 2

11 < 12    11 > 8

more than >

less than <

equal to =

the same as

Leslie made each number using either columns or base 10 and inserted a <, > or = symbol. Well done Leslie!

There are 15,000 people at a concert. There are 3,000 adults. How many more adults than children are there?

There are 650 children.

How much more money do they have? They have £60.00

How many pages does she read on Tuesday?

How many pages does she have left to read?

How many pages does she read altogether on Monday and Tuesday?

There are 123 people in the book altogether. How many pages does she have left to read?

Here are two number cards.

The sum of the two cards is 2,900.

What is the difference between the two cards?

31120

10 to use the grid method of multiplication

She is Hedge because she has more than 3 digit and less than 17 digits exchanged the digit

6782

47451

1137000 / 2

21975

3155.132 / 2 = 1577.56

4.15    550

420    1330

120    135

10.05    1905

3476    8206

2086    7345

2454    1968

14920    14490

6885    17338

Megan worked out the answer to 432 x 4

Here is her answer:

H	T	O
4	3	2
		4
16	12	8

16 12 8

and subtraction for solve problems

1-5

300p because 300p + 92p = 392p

1.6 x 8 = 48 ✓

2.60 x 80 = 4800 ✓

3.600 x 80 = 48000 ✓

4.0.6 x 8 = 4.8 ✓

5.8 x 0.7 = 5.09m    0.8 x 0.8

Name: Rudi    Date: 20.10.2020

x	2	3	4	6	7	9	11	12
10	20	30	40	60	70	90	110	120
2	4	6	8	12	14	18	22	24
3	6	9	12	18	21	27	33	36
4	8	12	16	24	28	36	44	48
8	16	24	32	48	56	72	88	96
12	24	36	48	72	84	108	132	144
14	28	42	56	84	98	126	154	168
18	36	54	72	108	126	162	198	216
22	44	66	88	132	154	198	242	264

4 pears and 5 lemons cost £3.35. 4 pears and 2 lemons cost £2.30. How much does one pear cost? How much does one lemon cost?

£1.05 ÷ 3 = 35p

1 lemon = 35p ✓

£1.60 ÷ 4 = 40p

1 pear = 40p ✓

4 pears and 5 lemons cost £1.44 + 28p = £1.72

4 pears and 2 lemons cost £1.44 + 14p = £1.58

20.10.2020

and 4 = 55,750p

5,750 = 140p

41750

55750

41750

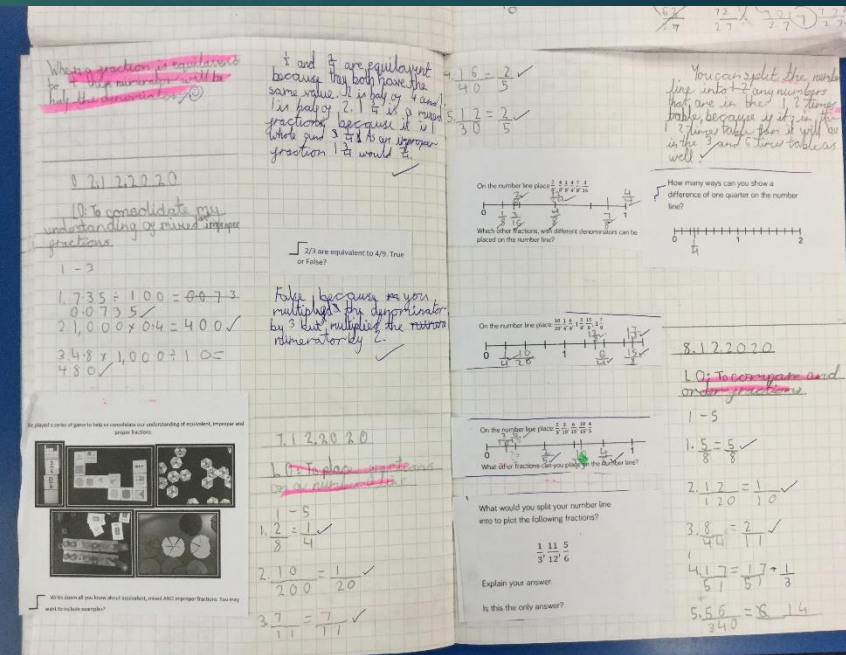
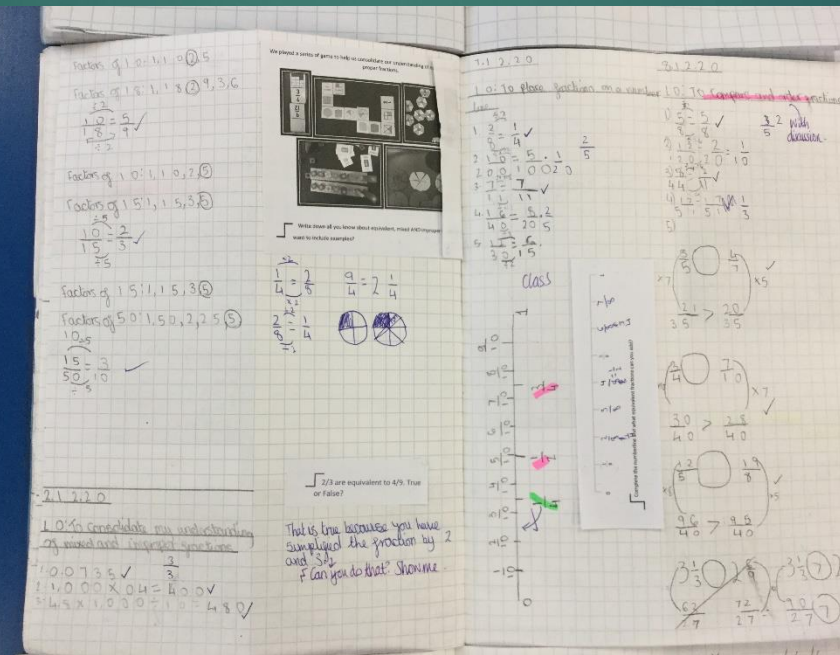
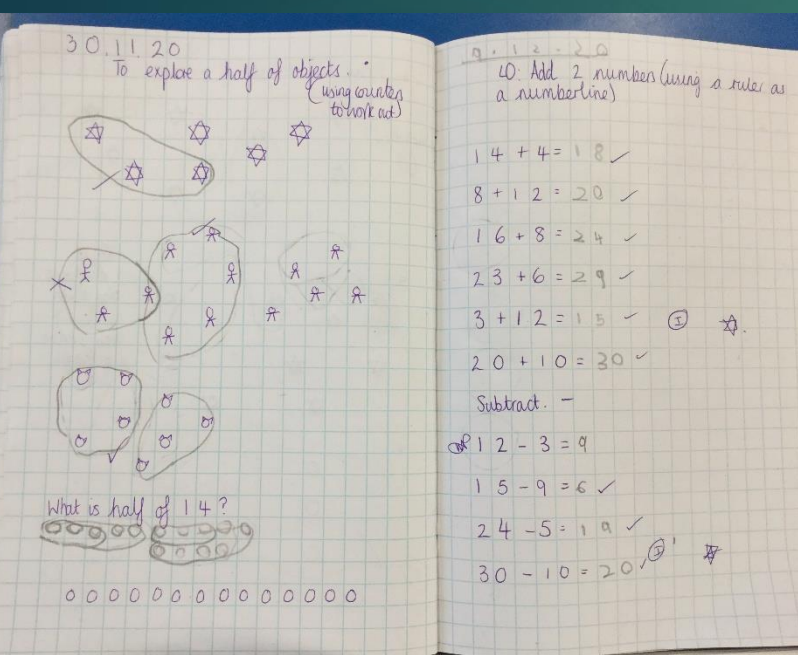
Time: 4:23    Score: 100

# Year 6 (Class 1) – SEN pupil has the opportunity to work on problems independently. Verbal feedback offered to deepen understanding. Extended time spent on fractions.

LA (SEN and PP)

MA (PP)

HA





# Year 6 (Class 2) – GW indicates that the children were guided during their learning. The children have the opportunity to represent their numbers in a variety of ways.

LA (PP)

MA (PP)

HA

The image displays three pages of student workbooks, each showing a different student's work on place value concepts. The work includes handwritten notes, diagrams, and calculations.

**Page 1 (Left):** The student is working on the concept of "10 times bigger" and "100 times bigger". They use a number line to show 10,000, 100,000, and 1,000,000. They also use a bar model to represent the number 42,560. The student has written: "We were doing largest to smallest on place value." and "10: To represent numbers up to 100,000".

**Page 2 (Middle):** The student is working on the concept of "10 times bigger" and "100 times bigger". They use a number line to show 10,000, 100,000, and 1,000,000. They also use a bar model to represent the number 42,560. The student has written: "Hundred thousands is 10 times bigger than ten thousands." and "The odd one out is the number line method because it represents 5,500. The number line jumps up from 5,000 to 6,000 which is a 1,000 difference. But on 1,000 is 500. The answer is jumping to the halfway point and 5,000 + 500 = 5,500."

**Page 3 (Right):** The student is working on the concept of "10 times bigger" and "100 times bigger". They use a number line to show 10,000, 100,000, and 1,000,000. They also use a bar model to represent the number 42,560. The student has written: "I could be the odd one out because it is the only one digit number." and "What one is the odd one out? 6x7, 6x9, 4x4, 50".

# Year 6 (Class 2) – Methods are consistent between groups and classes. LA group supported through reasoning tasks with verbal feedback.

LA (PP)


MA (PP)

HA

The image displays several pages of student workbooks with handwritten mathematical content:

- Leftmost page (LA group):** Contains a task "2/3 are equivalent to 4/9. True or False?" with a "False" answer and reasoning. It also includes a "Geography day 1" section with a number line and a "To compare and order fractions" task using a 10x10 grid.
- Middle-left page (MA group):** Features a "To compare and order fractions" task using a 10x10 grid and a number line. It includes the task "What fraction is the arrow indicating on the number line?" with several examples.
- Middle-right page (MA group):** Shows a "To place fractions on a number line" task and a "Simplify fraction" task using a 10x10 grid. It includes the task "What fraction is the arrow indicating on the number line?" with several examples.
- Rightmost page (HA group):** Contains a "To place fractions on a number line" task and a "To compare and order fractions" task. It includes the task "What fraction is the arrow indicating on the number line?" with several examples.





# Cross Curricular Maths

# Year 1 – DT and time

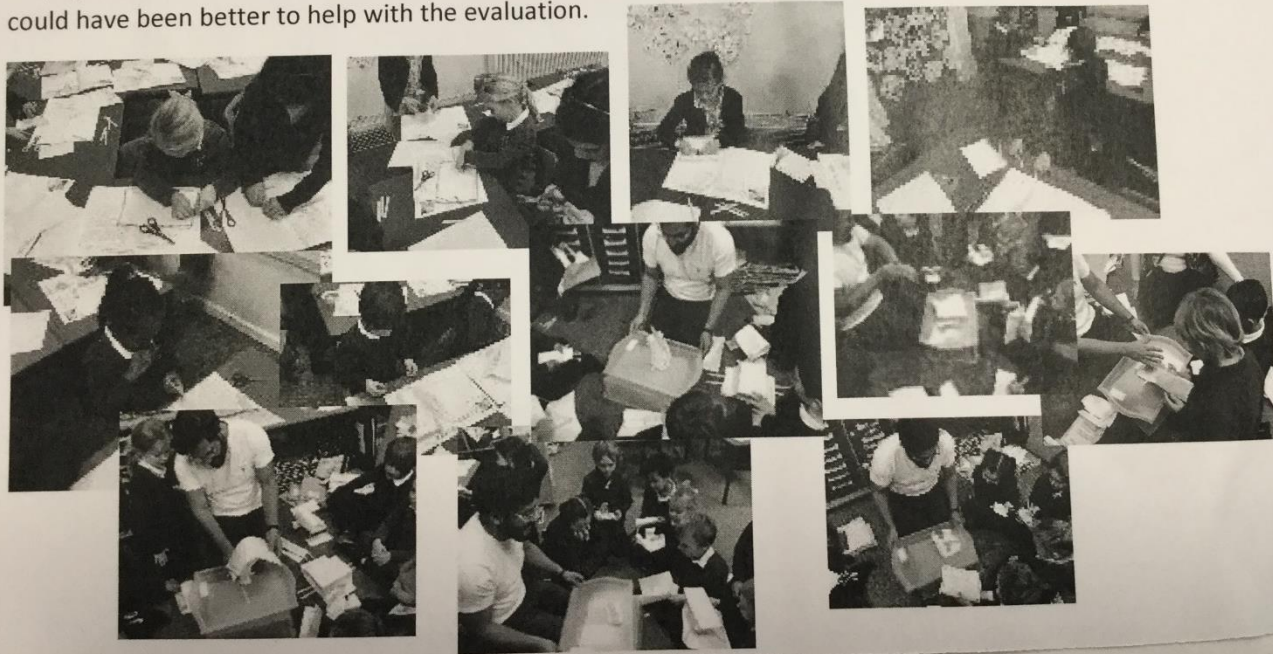
15/12/20

LO: Build our designed houses

Maths LO: Use time to measure

Before our evaluation we built our houses out of paper lollipop sticks and tape using our designs as inspiration. We recapped about what can help make our structures stable and then made them independently.

After we finished constructing our houses, we put them on a platform and measured how long our structures would stay up whilst the three little pigs inside. We timed up to 20 seconds and then discussed what worked well and what could have been better to help with the evaluation.



Year 1 'A Moment In Time' The Victorians

Cheeky Knowledge Organiser!

# Year 2 – Science and venn diagrams (Photo evidence)

**Monday 18<sup>th</sup> November 2020**  
 LO: To describe how a specific habitat provides for the basic needs of things living there (plants and animals)  
 LO: To identify and classify - Venn Diagram  
 We looked at animals and plants that might be found in our woodland area and compared them to animals and plants that might be found in urban areas of Bristol.

Woodland habitats would have animals such as a hedgehog, foxes and badgers. A woodland has a lot of green but there are also predators around so keep a look out. Animals need energy to survive. The plants there are trees and bushes. Did you know hedgehogs use the spines to defend their selves.

**Monday 22<sup>nd</sup> November 2020**  
 LO: To describe how a specific habitat provides for the basic needs of things living there (plants and animals)

A urban habitat has lots of animals. It's close between urban and woodland habitats. There are humans in urban Did you know that there are houses rats also like to be near bins.

**Monday 14<sup>th</sup> November 2020**  
 LO: To describe how a specific habitat provides for the basic needs of things living there (plants and animals)  
 LO: To identify and classify - Venn Diagram  
 We looked at animals and plants that might be found in our woodland area and compared them to animals and plants that might be found in urban areas of Bristol.

an urban habitat you might find

**Monday 22<sup>nd</sup> November 2020**  
 LO: To describe how a specific habitat provides for the basic needs of things living there (plants and animals)

The woodland has different animals and plants using a Venn diagram. Add what animals live in what habitat.


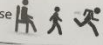
Field	Plant	Question	How did you find
sway	grass	Explaination	What a nice surprise
grass	tree	it is to me and	
grass	grass	Come to my party	
grass	grass		

# Year 3 – Heart rate and grid references

13/10/20 LO: Set up a fair test and explain why it is fair





**Hypothesis: Heart rate increases with level of exercise**

**Fair testing:**

Which variable are we <u>measuring</u> ?	Which variable do we want to <u>change</u> ?	Which variables do we want to keep the <u>same</u> ?	<u>Irrelevant</u> variables. We can ignore these!
Heart rate 	Level of exercise 	Time spent doing the activity The person doing the activity	Number of dogs in Victoria Park The wind speed outside

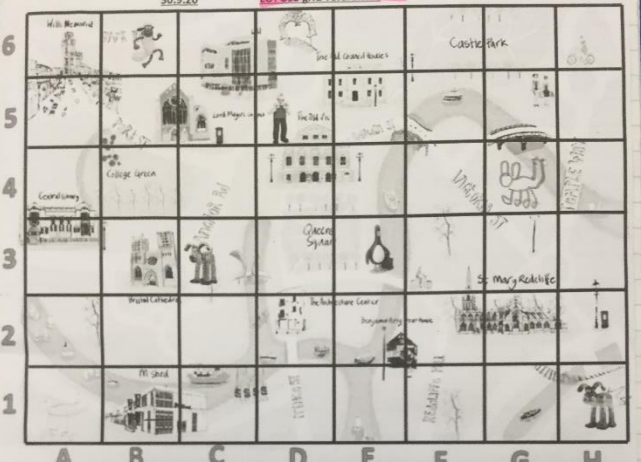
**Method:** Work in pairs. One child sits for 1 minute. Record heart beats for 20 seconds afterwards by measuring pulse. Rest for 5 minutes. Use this time to calculate beats per minute (number of beats + number of beats + number of beats). Walk on spot for 1 minute. Rest for 5 minutes / record BPM. Run on spot for 5 minutes. Record BPM.

**Results:**




Activity	 Sitting in a chair	 Walking on the spot	 Running on the spot
Heart rate 	46 beats per minute	49 beats per minute	110 beats per minute



**Conclusion:** *Please circle the correct answers that match your results*  
 Our results show that as the level of exercise increased, heart rate decreased / increased / stayed the same.  
 Our results support / don't support our hypothesis.

30.9.20 LO: Use grid references



1. Write grid references to show where these characters are hiding on the map of Bristol.

 C3 ✓  H1 ✓  E3 ✓

 D5 ✓  B6 ✓

2. Draw your own character in G4 ✓

3. Write grid references for the two squares the M-Shed appears in on the map: B1 ✓ and C1 ✓

4. Write grid references for the two bikes on the map: H6 ✓ and F3 ✓

# Year 4 – Data handling and venn diagrams

Our trip to Windmill Hill City Farm, we investigated the habitats of living creatures that can be found in our local area. We learnt about the differences and similarities between urban environments and the countryside and the differences between natural and manmade habitats.

18/11/20

~~10 Times and 1000s~~  
~~The key to your living things~~

Living Creature	Tally
moth	
slugs	
robins	
woodlice	
ant	
snail	

List 3 molluscs  
squid slug oyster

28.9.20

~~0.1 to classify animals by their diet.~~

fish  
cat treats  
cat jelly

Carnivore

Herbivore

Omnivore

egypt whale  
polar bear  
owl cheetah  
vulture lion  
penguin spider

duck pig dog  
wasp hedgehog  
badger cat  
blue tit

squirrel  
snail  
horse  
cow  
sheep



# Year 5 – Science and data handling

## Year 5 Mars Rover – SAM Labs STEAM Kits

After looking at the Mars Rover vehicle and discussing it, we made our own vehicles using the SAM Labs STEAM kit and Lego.

We created a system on the iPads with the SAM Labs blocks to control a dual-engine vehicle capable of turning with adjustable acceleration.

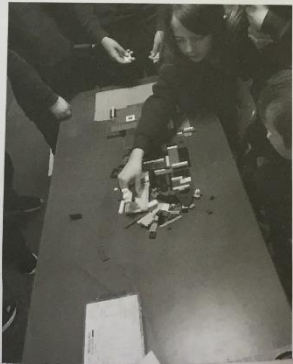
We also added a light sensor and RGB LED to allow the Rover to find its way on the dark surface of Mars.

The challenge was to see if our rovers could drive across a Martian terrain made of Lego!

### STATISTICS

We created the surface of Mars using lego. Then we tested how far and how fast the Mars Rover could travel.

In our Maths lessons we discussed our findings and used the data to draw bar and line graphs.



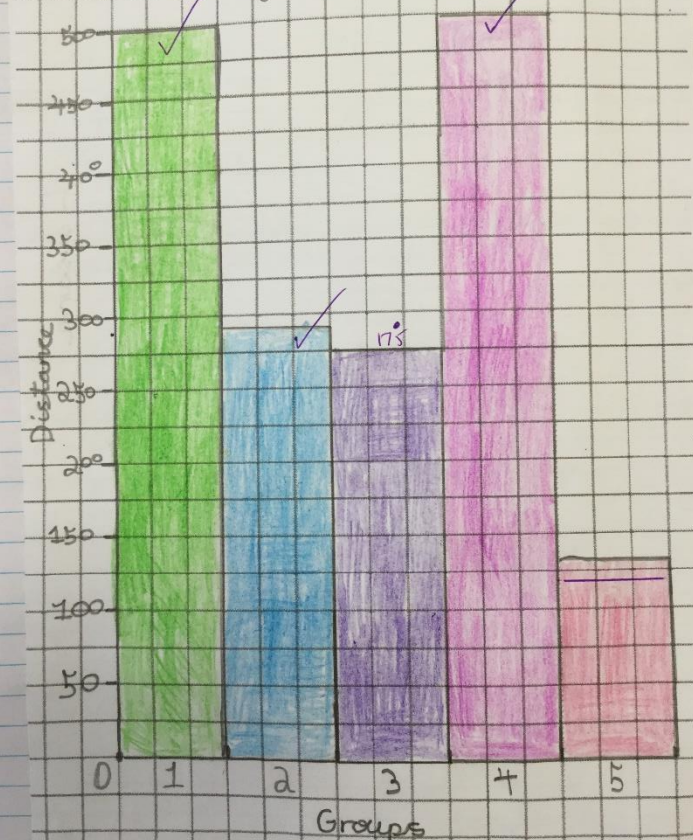
3.12.20

LO: to create a block graph

	Time in Seconds	Distance
Group 1	55.2	5m ✓
Group 2	60	2m 75cm ✓
Group 3	60	1m 75cm ✓
Group 4	21.64	5m ✓
Group 5	60	1m 22cm ✓

1. Fastest Group 4 21.64secs ✓✓
2. Slowest Group 5 60secs ✓
3. Difference between Fastest and Slowest: 38.36

A block graph to show how far a Mars Rover travelled.



# Year 6 – Angles, heart rate and budgeting

The first periscope  
The first periscope was made by Marie-Daivy in 1854.

To learn new knowledge to support my periscope design.

Light travels in a straight line. As light hits the rabbit it is reflected towards the first plane mirror. It hits the the mirror at the angle of incidence and is reflected at 45 degrees angle in the angle of reflection.

This happens in the second plane mirror and in to the fox's eyes.

$i = \text{angle of incidence}$   
 $r = \text{angle of reflection}$   
 $i = r = 45^\circ$

12:10:20  
LO: To find and record my pulse

26	19	18	25
$\times 4$	$\times 4$	$\times 4$	$\times 4$
104	76	72	100
12	3	3	12

	Joe (bpm)	Teon (bpm)
Strain after activity	104 bpm	100
Rest	72	77
1 minute after activity	100	100
2 minutes after activity	76	100
3 minutes after activity	72	72

Tuesday 13th October 2020.  
LO: To recognise the function of the large muscles.  
LO: To organize paragraphs around a theme.

FISHERTON  
7500 Shore break  
width

Key  
 □ house  
 ▨ beach  
 ▬ train track  
 □ train station  
 ~ River

Sea defence offshore break width

400	400
$\times 7$	$\times 1000$
2800	000
	0000
	00000
	400000

$1000 \times 400 = 400,000$   
 $400,000 \times 7 = 2,800,000$   
 Total = 2,800,000

Dear Cllr Abigail Hoque,  
 I am writing to discuss the issues we are having with the coastline at fisherton. Don't you believe that if we do nothing, we could lose this world fishing village wouldn't you agree?  
 We were thinking of 6km of offshore break in different areas of the coast of fisherton and over all it would



# Learning Environment

equal to

greater than

less than

ones

place value

tens

backwards

forwards

part

Do you notice a pattern with the numbers?

How do you know who has more or who has less?

What could you use to help you compare?

Which is greater 1 ten or 1 one? How do you know?

What do you notice?

What could you use to compare numbers?

Tens	Ones
	....
3	4
$54 - 20 =$	

Tens	Ones
	•
3	2
$22 + 10 = 32$	

inverse

addition

digits

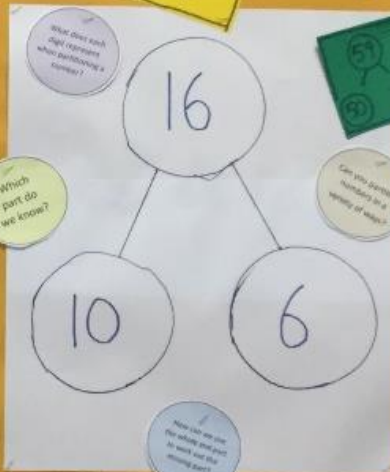
altogether

subtraction

whole

place value

$10 + 6 = 16$   
 $6 + 10 = 16$   
 $16 = 6 + 10$   
 $16 = 10 + 6$



Can you partition number 59 in a variety of ways?

What do you notice?

This week we are learning to: Solve problem with addition and subtraction!

*Handwritten notes:*  
 I have 1 ten and 23 ones in the car park. How many cars are there? How many cars are there if I add the car park? 51 now?  
 I had 10 cars. Then 13 left. How many cars are there now?  
 I had 39 cars. Then 23 went away. How many cars are left?  
 I had 10 cars. Then 23 more cars came. How many cars are there now?

**Maths Working Wall**

$1 + 2 = 3$

**Guess the number!**

I am thinking of a number...

#Clue 1: It is greater than 5.  
 #Clue 2: It is an even number.  
 #Clue 3: It is less than 15.  
 #Clue 4: When I double my number, the answer is 20.  
 What am I?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

"How can you convince me?"

TM	M	HT	T	H	T	ones	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$

Place value

Conversions

kg = kilo + gram  
 kilo means 1000 of  
 gram = 1  
 so kg = 1000 of g  
 1kg = 1000g  
 1000g = 1kg  
 kg x 1000 = g  
 g ÷ 1000 = kg

**Weight**

1 tonne = 1000 kilograms  
 1 kilogram = 1000 grams  
 1 gram = 1000 milligrams

t  
kg  
g  
mg

**Time**

1 day = 24 hours  
 1 hour = 60 minutes  
 1 minute = 60 seconds

hr  
min  
sec

What have you noticed?

"If I know  
 Then I know"

The Order of Operations

Brackets ( )  
 Of  $s^2$   
 Division  $X \div Y$   
 Multiplication  $X \times Y$   
 Addition  $X + Y$   
 Subtraction  $X - Y$

BODMAS

**Capacity**

1 litre = 1000 millilitres  
 1 centilitre = 10 millilitres

l  
cl  
ml

**Length**

1 kilometre = 1000 metres  
 1 metre = 100 centimetres  
 1 centimetre = 10 millimetres

km  
m  
cm  
mm

**Currency**

1 pound = 100 pence

£  
p

What information would this be useful for?

Rounding

474  
 ↓  
 470

476  
 ↓  
 480

RICE

Richard buys rice for 85p.  
 Mark buys rice for 95p.  
 How much more does Mark spend?  
 95p - 85p = 10p



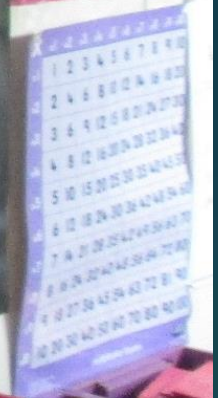
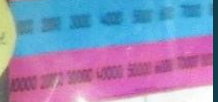
Roman Numerals

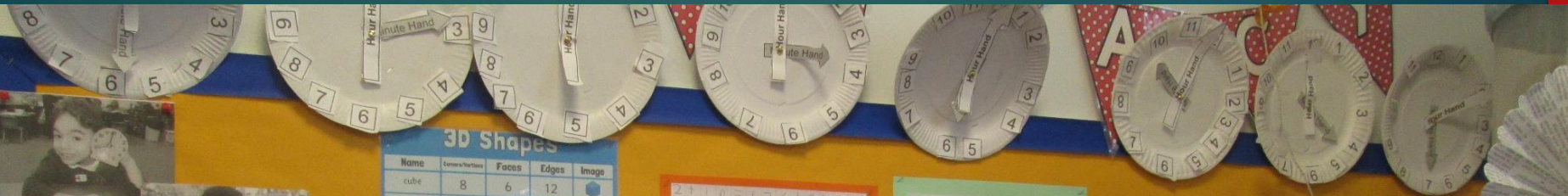
ROMAN NUMERALS  
 Can you count by only using letters?

I	1	XXX	30
II	2	XL	40
III	3	L	50
IV	4	LX	60
V	5	LXX	70
VI	6	LXXX	80
VII	7	XC	90
VIII	8	C	100
IX	9	D	500
X	10	M	1000
XX	20	MD	1500

Test yourself

X = DC =  
 XIV = MCIX =  
 IL = MMIX =





### 3D Shapes

Name	Corners/Vertices	Faces	Edges	Image
cube	8	6	12	
cuboid	8	6	12	
square-based pyramid	5	5	8	
sphere	0	1	0	
cylinder	0	3	2	
cone	1	2	1	

$2 + 10 = 12$   
 $7 + 10 = 20$   
 $4 + 10 = 14$   
 $6 + 10 = 16$   
 10 always the second number doesn't change

"If I add 10 to any number the answer will always end in 0"  
 Prove it!

### 2D Shapes

Shape	Corners	Edges
circle	0	1
square	4	4
rectangle	4	4
triangle	3	3
pentagon	5	5
hexagon	6	6
heptagon	7	7
octagon	8	8
nonagon	9	9
decagon	10	10

### Number Bonds To 10

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

How could you compare and describe these basket ball players?

tall, small, long, short  
 taller, smaller, longer, shorter  
 tallest, smallest, longest, shortest

How could you compare and describe these pencils?

tall, small, long, short  
 taller, smaller, longer, shorter  
 tallest, smallest, longest, shortest

Finding half of

mm = millimetres

cm = centimetres

m = metres



**Add**

and increase  
total  
plus  
together  
more

**Subtract**

difference between  
take away  
minus  
fewer  
reduce  
decrease  
take from

**Multiply**

multiplied by  
groups of  
times  
product  
lots of  
times table

**Divide**

share equally  
divide by  
group  
share  
divide into  
divisible by



0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
1	2	3	4	5	6	7	8	9
10	20	30	40	50	60	70	80	90
100	200	300	400	500	600	700	800	900
1000	2000	3000	4000	5000	6000	7000	8000	9000
10000	20000	30000	40000	50000	60000	70000	80000	90000

**Read**

**Illustrate**

**Calculate**

**Explain**

# SOLVING MATHS PROBLEMS

**If I know that.....**  
then I know.....

$\frac{1}{2} = 50\% = 0.5$   
 $\frac{1}{4} = 25\% = 0.25$   
 $\frac{3}{4} = 75\% = 0.75$

$\frac{1}{10} = 10\% = 0.1$   
 $\frac{3}{10} = 30\% = 0.3$   
 $\frac{6}{10} = 60\% = 0.6$   
 $\frac{9}{10} = 90\% = 0.9$

**10mm = 1cm**  
**100cm = 1m**  
**1000m = 1km**

**1000g = 1kg**  
**1000kg = 1t**

**Problem of the week**

**+**

**x**

**This week, I will master.....**

**Maths Vocabulary**

1	2	3	4	5	6	7	8	9
11	12	13	14	15	16	17	18	19
21	22	23	24	25	26	27	28	29
31	32	33	34	35	36	37	38	39

**Remembering**

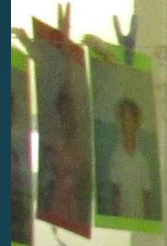
Who, what, when, why...?  
Can you identify...?  
How many...?  
What happened after...?  
What do you know about...?

**Creating**

How many steps can you...?  
Write a letter to... regarding...  
What would a possible solution be to...?  
Can your response be long about...?

**Evaluating**

What would be the consequences of...?  
What changes would you recommend?  
How will... influence your work?  
What is your opinion on...?  
How would you feel if...?  
Is there a better solution to...?



0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
1	2	3	4	5	6	7	8	9
10	20	30	40	50	60	70	80	90
100	200	300	400	500	600	700	800	900
1000	2000	3000	4000	5000	6000	7000	8000	9000
10000	20000	30000	40000	50000	60000	70000	80000	90000

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1									
$\frac{1}{2}$					$\frac{1}{2}$				
$\frac{1}{3}$			$\frac{1}{3}$				$\frac{1}{3}$		
$\frac{1}{4}$		$\frac{1}{4}$			$\frac{1}{4}$		$\frac{1}{4}$		
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$	
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

**Methods of addition:**  
 - column method  
 - number line  
 - mental addition  
 - partitioning

**addition**  
 +  
 add, more, plus, make, sum, total, altogether

**addition**  
 How many more to make...  
 How many more to...  
 How much more to...

**division**  
 ÷  
 divide, divided by, divided into, share, share equally, equal groups of

**multiplication**  
 ×  
 times, multiply, product, multiplied by, multiplied to, multiplied to give

**Maths Vocabulary**

**Challenge yourself!**

**Don't forget!**  

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
$\frac{1}{5}$	0.2	20%

**Problem of the week**

**Have your say**

**Key Questions**

**12 × 11 = 132**

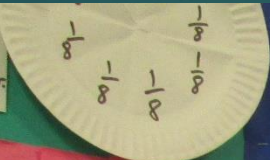
Can you explain why 57.25 is bigger than 5.25?  
 What would you expect 57.25 × 10 to be?  
 5.725?

- 6
- 12
- 18
- 24
- 30
- 36
- 42
- 48
- 54
- 60
- 66
- 72

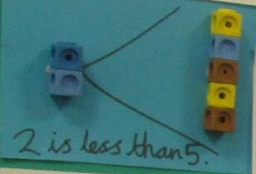
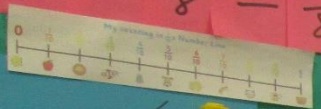
Behaviour



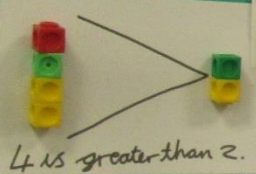
I can use the inverse to check my answer.



$$\frac{1}{8} + \frac{4}{8} = \frac{5}{8}$$



2 is less than 5.



4 is greater than 2.



Perimeter goes around the outside... around the outside



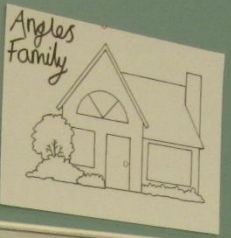
Start on zero right way

**subtraction**

- subtract
- minus
- leave
- less
- take away
- difference between

If I know...then...

What do you notice?



Maths Reasoning

**Tally Chart**  
Use 5 classes the gate

Class	Frequency
1	1
2	2
3	3
4	4
5	5

**Pictogram**  
Key = how much does a picture represent? What do you know from the pictogram?

Item	Quantity
Apples	10
Bananas	5
Oranges	15
Pears	8
Strawberries	12

**Bar Chart**  
Table - what is the graph showing?  
Always use a ruler to draw a bar graph

Category	Value
Apples	10
Bananas	5
Oranges	15
Pears	8
Strawberries	12

Use these sentence starters to explain your reasons for your answers

What do you think happens when...

I know she is correct because...

I agree with his explanation because...

I know that... is correct so that means that...

Problem of the week

**How Long?**

How long is the house? Measure the length of the house in centimeters. How long is the person? Measure the length of the person in centimeters. How long is the door? Measure the length of the door in centimeters. How long is the window? Measure the length of the window in centimeters. How long is the roof? Measure the length of the roof in centimeters. How long is the chimney? Measure the length of the chimney in centimeters. How long is the garden? Measure the length of the garden in centimeters. How long is the path? Measure the length of the path in centimeters. How long is the fence? Measure the length of the fence in centimeters. How long is the driveway? Measure the length of the driveway in centimeters. How long is the garage? Measure the length of the garage in centimeters. How long is the porch? Measure the length of the porch in centimeters. How long is the stairs? Measure the length of the stairs in centimeters. How long is the hallway? Measure the length of the hallway in centimeters. How long is the living room? Measure the length of the living room in centimeters. How long is the kitchen? Measure the length of the kitchen in centimeters. How long is the bedroom? Measure the length of the bedroom in centimeters. How long is the bathroom? Measure the length of the bathroom in centimeters. How long is the closet? Measure the length of the closet in centimeters. How long is the wardrobe? Measure the length of the wardrobe in centimeters. How long is the chest of drawers? Measure the length of the chest of drawers in centimeters. How long is the bed? Measure the length of the bed in centimeters. How long is the sofa? Measure the length of the sofa in centimeters. How long is the chair? Measure the length of the chair in centimeters. How long is the table? Measure the length of the table in centimeters. How long is the lamp? Measure the length of the lamp in centimeters. How long is the clock? Measure the length of the clock in centimeters. How long is the mirror? Measure the length of the mirror in centimeters. How long is the rug? Measure the length of the rug in centimeters. How long is the carpet? Measure the length of the carpet in centimeters. How long is the wall? Measure the length of the wall in centimeters. How long is the ceiling? Measure the length of the ceiling in centimeters. How long is the floor? Measure the length of the floor in centimeters. How long is the roof? Measure the length of the roof in centimeters. How long is the chimney? Measure the length of the chimney in centimeters. How long is the garden? Measure the length of the garden in centimeters. How long is the path? Measure the length of the path in centimeters. How long is the fence? Measure the length of the fence in centimeters. How long is the driveway? Measure the length of the driveway in centimeters. How long is the garage? Measure the length of the garage in centimeters. How long is the porch? Measure the length of the porch in centimeters. How long is the stairs? Measure the length of the stairs in centimeters. How long is the hallway? Measure the length of the hallway in centimeters. How long is the living room? Measure the length of the living room in centimeters. How long is the kitchen? Measure the length of the kitchen in centimeters. How long is the bedroom? Measure the length of the bedroom in centimeters. How long is the bathroom? Measure the length of the bathroom in centimeters. How long is the closet? Measure the length of the closet in centimeters. How long is the wardrobe? Measure the length of the wardrobe in centimeters. How long is the chest of drawers? Measure the length of the chest of drawers in centimeters. How long is the bed? Measure the length of the bed in centimeters. How long is the sofa? Measure the length of the sofa in centimeters. How long is the chair? Measure the length of the chair in centimeters. How long is the table? Measure the length of the table in centimeters. How long is the lamp? Measure the length of the lamp in centimeters. How long is the clock? Measure the length of the clock in centimeters. How long is the mirror? Measure the length of the mirror in centimeters. How long is the rug? Measure the length of the rug in centimeters. How long is the carpet? Measure the length of the carpet in centimeters. How long is the wall? Measure the length of the wall in centimeters. How long is the ceiling? Measure the length of the ceiling in centimeters. How long is the floor? Measure the length of the floor in centimeters.





### Calculation Wall

over, around, under, past, behind, through

Halving skills

Find the total of two groups of objects by counting all of them.

$2 + 3$

Maths Vocabulary  
count  
add  
Altogether  
How many  
Halving  
Doubling

1 One, 2 Two, 3 Three, 4 Four, 5 Five, 6 Six, 7 Seven, 8 Eight, 9 Nine, 10 Ten

A large blue display board titled 'Calculation Wall'. It features a row of six cards with prepositions and illustrations: 'over' (a duck), 'around' (a car), 'under' (a car), 'past' (a windmill), 'behind' (a house), and 'through' (a fence). Below these are ten ducks numbered 1 to 10, each with a corresponding number of dots on its body. To the right, there are instructions for 'Halving skills' and a simple addition problem  $2 + 3$  with colored dots. A 'Maths Vocabulary' list includes 'count', 'add', 'Altogether', 'How many', 'Halving', and 'Doubling'. A small drawing of a girl is at the bottom right of the board.

### 1 more than

0 1 2 3 4 5 6 7 8 9 10

A grid of numbers from 0 to 10, each in a colored box. To the right, there are small illustrations of objects representing the numbers: 1 (one block), 2 (two blocks), 3 (three blocks), 4 (four blocks), 5 (five blocks), 6 (six blocks), 7 (seven blocks), 8 (eight blocks), 9 (nine blocks), and 10 (ten blocks).

0 1 2 3 4 5 6 7 8 9

A row of ten cards, each showing a number from 0 to 9 with a small illustration and a short sentence describing the number.

Be SAFE Online

A poster with icons and text promoting online safety. It includes the words 'Be SAFE Online' and icons for a computer, a person, a shield, and a lock.

Computer workstation with monitor, keyboard, mouse, and a blue chair.

A desk with a computer monitor, keyboard, mouse, and a blue chair. A piece of paper is on the desk.

Storage unit with drawers and shelves containing various items like blocks, bowls, and a green mat.

A wooden storage unit with a top shelf and several drawers. On the top shelf, there are colorful blocks, bowls, and a green mat. The drawers are labeled with numbers and contain various items.

# Planning

# White Rose Medium Term Plans - Reception

## Reception - Notes and guidance



### Autumn Progression

<b>Number and Place Value</b>	Numbers to 5	→ One, two, three → Four → Five
<b>Addition and Subtraction</b>	Sorting	→ Sorting into groups
<b>Number and Place Value</b>	Comparing groups	→ Comparing quantities of identical objects → Comparing quantities of non-identical objects
<b>Addition and Subtraction</b>	Change within 5	→ One more → One less
<b>Measurement</b>	Time	→ My day

## Reception - Notes and guidance



### Spring Progression

<b>Addition and Subtraction</b>	Numbers to 5	→ Number bonds to 5
<b>Number and Place Value</b>	Numbers to 10	→ Counting to 6, 7 and 8 → Counting to 9 and 10 → Comparing groups up to 10
<b>Addition and Subtraction</b>	Addition to 10	→ Combining two groups to find the whole → Number bonds to 10 – ten frame → Number bonds to 10 – part-whole model
<b>Geometry</b>	Shape and space	→ Spatial awareness → 3-D shapes → 2-D shapes

## Reception - Notes and guidance



### Summer Progression

<b>Geometry</b>	Exploring patterns	→ Making simple patterns → Exploring more complex patterns
<b>Addition and Subtraction</b>	Count on and back	→ Adding by counting on → Taking away by counting back
<b>Number and Place Value</b>	Numbers to 20	→ Counting to 20
<b>Multiplication and Division</b>	Numerical patterns	→ Doubling → Halving and sharing → Odds and evens
<b>Measurement</b>	Measure	→ Length, height and distance → Weight → Capacity

# WR – Year 1

WRM – Year 1 – Scheme of Learning 2.0s



	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 (within 10)				Number: Addition and Subtraction (within 10)					Geometry: Shape	Number: Place Value (within 20)	
Spring	Consolidation	Number: Addition and Subtraction (within 20)		Number: Place Value (within 50)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation	
Summer	Consolidation	Number: Multiplication and Division		Number: Fractions		Geometry: Position and Direction	Number: Place Value (within 100)		Measurement: Money	Measurement: Time		

# WR – Year 2

WRM – Year 2 – Scheme of Learning 2.0s



	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 and Subtraction				Measurement: Money		Number: Multiplication and Division		Consolidation
Spring	Number: Multiplication and Division				Statistics		Geometry: Properties of Shape		Number: Fractions			
Summer	Measurement: Movement and Turns		Geometry: Position and Direction		Consolidation and problem solving		Measurement: Time		Measurement: Mass, Capacity and Temperature			Consolidation

# WR – Year 3

WRM – Year 3 – Scheme of Learning 2.0s



	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 and Subtraction				Number: Multiplication and Division				
Spring	Number: Multiplication and Division			Measurement: Money	Statistics	Measurement: Length and Perimeter			Number: Fractions		Consolidation	
Summer	Number: Fractions			Measurement: Time		Geometry: Properties of Shape		Measurement: Mass and Capacity			Consolidation	

# WR – Year 4

WRM – Year 4 – Scheme of Learning 2.0s



	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 and Subtraction			Measurement: Length and Perimeter	Number: Multiplication and Division			
Spring	Number: Multiplication and Division			Measurement: Area	Number: Fractions				Number: Decimals		Consolidation	
Summer	Number: Decimals		Measurement: Money		Measurement: Time		Statistics	Geometry: Properties of Shape		Geometry: Position and Direction		Consolidation



# WR – Year 5

WRM – Year 5 – Scheme of Learning 2.0s



	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 and Subtraction		Statistics		Number: Multiplication and Division			Measurement: Perimeter and Area	
Spring	Number: Multiplication and Division			Number: Fractions						Number: Decimals and Percentages		Consolidation
Summer	Consolidation	Number: Decimals			Geometry: Properties of Shape		Geometry: Position and Direction		Measurement: Converting Units		Measurement: Volume	

# WR – Year 6

WRM – Year 6 – Scheme of Learning 2.0s



	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					Geometry: Position and Direction
Spring	Number: Decimals	Number: Percentages		Number: Algebra		Measurement: Converting Units	Measurement: Perimeter, Area and Volume		Number: Ratio		Statistics	
Summer	Geometry: Properties of Shape			Consolidation or SATs preparation		Consolidation, investigations and preparations for KS3						

# Class Plan Example - EYFS


<p><b>Maths</b></p>	<p>Daily singing, routines, counting activities, modelling graphics, representing number with different resources Time for routines Maths stories Number of the week</p>	<p>Fireworks pictures 2D shapes Ordering fireworks by sizes Ordering fireworks numbers to 10</p>	<p>Pattern and symmetry  Symmetrical patterns on <u>toran</u> template</p>	<p>Accurate 1:1 counting One more</p>	<p>Order the faces of the moon by size. Drawing the moon bigger and smaller. Make a long and short ladder to the moon Measuring a ladder</p>	<p>Counting stars on a number line. Finding totals.</p>	<p>Ordering Christmas parcels by size and weight.</p>	<p>2D shapes Christmas cards.</p>	
<p><u>E</u>exat - 43-60 months</p>	<p>N (I) 49-54: Counts with 1:1 correspondence a set of up to 10 objects and recognises some numerals of personal significance. N(I) 55-60: Counts with numbers from 0-10 recognises and places in order and uses resources to say one more. N(II) 49-54: Finds totals by counting and combines groups of objects. SS&amp;M (I) 55-60: Creates patterns by lining, placing, building and arranging. SS&amp;M (I) 49-54: Uses comparative language to describe and compare size and weight. SS&amp;M (II) 49-54: Orders three or more measures by size and weight.</p>								
<p><b>Vocabulary</b></p>	<p>Straight, curved, big, bigger, small, smaller, heavy, heavier, light, lighter, triangle, square, rectangle, semi-circle, star, cone, cylinder</p>								

**Maths**

Children identify representations of 1, 2 and 3. They subitise or count to find how many and make their own collections of 1, 2 and 3 objects. They match the number names we say to numerals and quantities. They count up to three objects in different arrangements by touching each object as they count and recognise that the final number they say names the quantity of the set. They use their own mark-making to represent 1, 2 and 3 for example to record their score during a game.

**Activity**

Ask the children to count out 1, 2 or 3 objects from a larger group. For example, we are going to play a game. You will each need 3 beanbags.




Then throw bean bags into hoops. Children then write their score. Practise number formation.

Differentiation – LA – support with counting – writing numbers big with chalk, in sand etc.

HA - With the children count out 1, 2 or 3 items and then use a cloth or a bowl to hide them. Can the children use their fingers to show you how many are hidden? Ask the children to watch as you add one more item to the hidden group. How many will be hidden now? What if you take one out?

These tasks challenges the children to count unseen objects and to visualise one more and one less within 3. The children may use their fingers to help them predict what one more or one less will be. They could also use their own mark-making to represent the hidden objects.

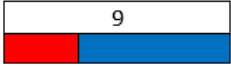
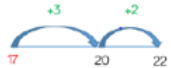
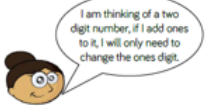
You could vary the task by dropping pebbles into a bucket or pennies into a cup. Encourage the children to count the sounds. Ask them to predict how many there will be if you take one out or add one more and then count together to check.



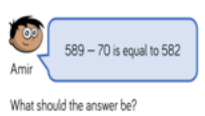

# Class Plan Example - Year 1

Maths Weekly Planning		Year 1	Class Willow/Hawthorn	Date 09/11/20	Term 2	2020-2021
Session 1	Addition - Add Together	3D shape flash	Remind the children the part whole model and what each section represents. Show how a part whole model can be a way to show a number sentence. Also show a ten frame and complete the same sentence. Get children to deep dive the problem using different methods including a story.	SEN/ EAL	Children to be sorting and combining two totals	Plenary Opportunities for Reasoning to be developed. Ask the children which sentence is correct, A, B or C.
				LA	Children to look at addition as combining two quantities and start to show it in writing. They are to first use counters and talk about what they have done.	
				MA	Children to use counters and start working independently in combining two quantities.	
				DEEP	Children to do the same as above but to include all number facts about the given number (Include $9=4+5$ & $9=5+4$ )	
Session 2	Addition - Add more	Countdown from 20	Discuss what adding more is and the difference between adding more and adding together. Go through a number of sentence problems and see if they can solve the problem practically and then the same but using a number sentence.	SEN/ EAL	Children to work on adding to small quantities by adding on. Practically work on adding and finding the total. Children can use the part whole model and physically move the pieces up to make a whole.	Find which model is represented by the number sentence.
				LA	Children to use objects to help with finding the total. Focus on the children counting on.	
				MA	Children to use Numicon to help find the answer, see if they can use their number facts to find the answer.	
				DEEP	Children to identify coins to find the totals. They are to write the number sentence both ways ( $8+3=11$ , $11=8+3$ )	


# Class Plan Example - Year 2

Maths Weekly Planning Year 2 Class W/B - HAZEL Date 16.11.20 Term 2 2020-21									
	Objective/s	Mental Maths	Main teaching Key Questions	Activities Teacher / TA focus highlighted	Plenary Opportunities for Reasoning to be developed.				
MONDAY	LO: I am learning to apply my number bonds	Hit the Button – bonds to 10	All chn complete a no. bond fact sheet.  SENEAL & LA – bond for 10 Everyone else mixed bonds Do some choral chanting using the factsheets to embed the bonds.  <b>It will be vital that chn know these bonds for this weeks learning.</b>	<table border="1"> <tr><td>SEN/EAL</td></tr> <tr><td>LA</td></tr> <tr><td>MA</td></tr> <tr><td>DEEP</td></tr> </table> <p>In ability pairs chn to quickly find no. bonds Around the playground, draw 10 large circles and write the no. inside. SENEAL – have digit cards 0-10. They have to place the card in the circle that will make 10. Numicon tiles to support them and LSA LA – Missing no. sentences using numicon MA – Missing no. sentences (adding) &amp; bar models bonds up to 10 HA – Missing no. sentences (adding/subtraction) bonds up to 10 <b>Photo evidence &amp; quotes for books</b></p>	SEN/EAL	LA	MA	DEEP	<p>What could the numbers be for these two parts? Justify your answer.</p> 
SEN/EAL									
LA									
MA									
DEEP									
TUESDAY	LO: I am learning to use no. bonds to solve addition facts effectively	Choral chanting no. bonds to 10.	<p>We are going to be adding 1-digit to a 2-digit no.  Demo how to do this with base 10.</p> <p>Solve: <math>44 + 8 =</math> <i>Get four 10s and 4 ones, then 8 ones. Place the four 1s on a tens frame. To make the next 10 I need 6 more. Take six ones from the 8 group. I have made another 10. I can exchange these for a 10. Now I have five 10s and two 1s left over. So, <math>44+8 = 52</math></i></p> <p>Chn to have a go practically in their pairs solving:</p> <p><math>73 + 8</math></p> <p><math>59 + 7</math></p>	<table border="1"> <tr><td>SEN/EAL</td></tr> <tr><td>LA</td></tr> <tr><td>MA</td></tr> <tr><td>DEEP</td></tr> </table> <p>Adding two 1-digit nos (Imani, Freya, Madison) using resources and tens frames Adding two 1-digit nos, bridging 10 (Archie) using tens frames and base ten <b>Photo evidence &amp; quotes for books</b></p> <p>With support add 2-digit nos, bridging ten. Nos below 50. <b>Photo evidence &amp; quotes for books</b></p> <p>Working in pairs to solve no. sentences bridging 10 <b>Photo evidence &amp; quotes for books</b></p> <p>Working with support demonstrate how to do this quickly using a no. line.</p> <p>Can we use number bonds to solve the addition more efficiently?</p>  <p>We can partition 5 into 3 and 2 and use this to bridge the 10</p> <p>Chn then have a go at solving:</p>	SEN/EAL	LA	MA	DEEP	<p>Always, sometimes, never?</p>  <p>Explain your answer.</p>
SEN/EAL									
LA									
MA									
DEEP									



# Class Plan Example - Year 3

	Objective/s	Mental Maths	Main teaching Key Questions	Activities Teacher / TA focus highlighted	Plenary Opportunities for Reasoning to be developed.
MONDAY	LO: To add and subtract 2 digit and 3 digit numbers (Y3)  LO: To know your bonds (Y2)  LO: To find number bonds within 10	<b>1- 5 linked to place value.</b>	Children add and subtract multiples of 10, to a 3-digit number without exchanging.  Chn recognise that when adding or subtracting tens the tens column will change and the hundreds and ones will stay the same. Base 10, arrow cards and place value charts should be used to show representations.  <b>If we are adding or subtracting 10's what column do we need to focus on? If we had 348 how many tens can we add/subtract without exchanging? What patterns do you see between addition/subtraction?</b>  <b>If I know <math>2 + 8 = 10</math> How can that help solve <math>20 + ? = 100</math></b>	<b>SEN/EAL</b> To find number bonds to 10. What 2 numbers can be added together to make 10? What happens to the parts each time?	. Spot the Mistake  
				<b>LA</b> If I know $3 + 7 = 10$ I know that $30 + 70 = 100$ How many tens are there in 100?	
				<b>MA</b> To add 3 digit and 2 digit numbers using place value charts, arrow cards and base 10	
				<b>DEEP</b> To add 3 digit and 2 digit numbers using place value charts, arrow cards and base 10	
TUESDAY	LO: To add 2 digit and 3 digit with an exchange (Y3) LO: To know related number facts (Y2)	Partition numbers in different ways (CC2/3)  Input with CC1	<b>When we add what columns do we focus on? When do they change? How many 10's do we exchange for 100? Is it easier to solve in our heads?</b>	<b>SEN/EAL</b> Independent practise to find number bonds to 10 – missing box problems usinf bar model.	Both girls finished with 721  
				<b>LA</b> To solve related nuber facts.. If I know $4 + 5 = 9$ I know that $40 + ? = 90$	
				<b>MA</b> To add 2 digit number with an exchange use resources to support learning	

# Class Plan Example - Year 4

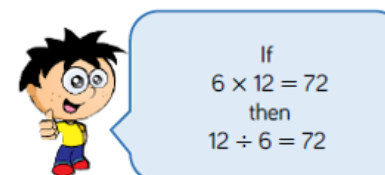
<b>TUESDAY</b>	To add and subtract 1s, 10s, 100s and 1,000s	1-5	<p>Using base 10 – focus on exchanging</p> <p>Can you represent the numbers using Base 10 and place value counters? What's the same about the representations? What's different?</p> <p>If we are adding tens, are the digits in the tens column the only ones that change? Do the ones/hundreds/thousands ever change?</p>	<b>SEN/EAL</b>	Extra mild – Year 3 fluency	Quick fire
				<b>LA</b>	Mild - varied fluency Yr 4 with reasoning	
				<b>MA</b>	Spicy – reasoning Yr 4 reasoning	
				<b>DEEP</b>	Extra hot – Yr 4 problem solving/mastery with reasoning	
<b>WED</b>	To add 3 digit numbers	1-5	<p>Where would these digits go on the place value chart? Why?</p> <p>Why do we make both numbers when we add?</p> <p>Can you represent ___ using the equipment?</p> <p>Can you draw a picture to represent this?</p> <p>Why is it important to put the digits in the correct column?</p>	<b>SEN/EAL</b>	Extra mild – Year 3 fluency	Identify the mistake.
				<b>LA</b>	Mild - varied fluency Yr 4 with reasoning	
				<b>MA</b>	Spicy – reasoning Yr 4 reasoning	
				<b>DEEP</b>	Extra hot – Yr 4 problem solving/mastery with reasoning	
<b>THURS</b>	To add 3 digit numbers	1-5	<p>Here are three digit cards.</p>  <p>Alex and Teddy are making 3-digit numbers using each card once.</p> <p>Alex: I have made the greatest possible number.</p> <p>Teddy: I have made the smallest possible number.</p> <p>Work out the total of their two numbers.</p>	<b>SEN/EAL</b>	Extra mild – Year 3 fluency	Mini-plenary – reasoning task with explanation. Vocab box
				<b>LA</b>	Mild - varied fluency Yr 4 with reasoning	
				<b>MA</b>	Spicy – reasoning Yr 4 reasoning	
				<b>DEEP</b>	Extra hot – Yr 4 problem solving/mastery with reasoning	
<b>FRI</b>	To add 4 digit numbers	1-5	<p>How many ones are there altogether? Can we make an exchange? Why? (Repeat questions for other columns)</p> <p>Is it more difficult to add 3-digit or 4-digit numbers without exchanging? Why?</p> <p>How can you find the missing numbers? Do you need to add or subtract?</p>	<b>SEN/EAL</b>	Extra mild – Year 3 fluency	Mini-plenary – reasoning task with explanation. Vocab box
				<b>LA</b>	Mild - varied fluency Yr 4 with reasoning	
				<b>MA</b>	Spicy – reasoning Yr 4 reasoning	
				<b>DEEP</b>	Extra hot – Yr 4 problem solving/mastery with reasoning	

# Class Plan Example - Year 5

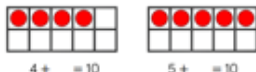

	Objective/s	Mental Maths	Main teaching Key Questions	Activities Teacher / TA focus highlighted	Plenary Opportunities for Reasoning to be developed.
MONDAY	LO: To recognise and use square numbers	Times Table Test (1-5)	<p>Show <math>2^2</math>. Ask what the <math>^2</math> means. Reveal a <math>2 \times 2</math> square. Explain that <math>^2</math> means you multiply a number by itself. <math>2 \times 2</math> across. Show a <math>3 \times 3</math> square. What does this array show you? Why is it square? Elicit that it is the same across and up. Explain that there are two dimensions here (<math>3 \times 3</math> up and <math>3 \times 3</math> across). Show a <math>2 \times 2</math> square and a <math>3 \times 3</math> square and ask "if this is <math>2^2</math> and <math>3^2</math>, what does <math>4^2</math> look like?".</p> <p>Activity 1. Then...</p> <p>Bring children together and elicit first 10 squares. Is there a pattern between numbers? Explore in pairs. CT may need to get them started. Draw in books/paper Reasoning</p>	<p><b>SEN/EAL</b></p> <ol style="list-style-type: none"> <li>1) Find the first 5 square numbers using counters and record in books with pictures with TA support.</li> <li>2) Find next 5 square numbers and record on 100 squares.</li> </ol>	True or False: The square of an even number is even and the square of an odd number is odd.
				<p><b>LA</b></p> <ol style="list-style-type: none"> <li>1) Find the first 6 square numbers using counters in pairs and record in books.</li> <li>2) Find the next 4 squares (up to 100) independently and record on 100 square. Move onto reasoning probs when complete.</li> </ol>	
				<p><b>MA</b></p> <ol style="list-style-type: none"> <li>1) Find the first 12 square numbers and prove that they are square numbers.</li> </ol> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Chris says</p>  <p>Factors come in pairs so all whole numbers must have an even number of factors.</p> <p>Do you agree? Explain your reasoning.</p> <p style="text-align: right;">Must</p> </div> <p>ensure the children explain.</p>	
				<p><b>DEEP</b></p> <ol style="list-style-type: none"> <li>3) Find the first 5 square numbers using counters and record in books with pictures with TA support.</li> <li>4) Find next 5 square numbers and</li> </ol> <p>Use multilink cubes and investigate how many are needed to make different sized cubes. </p>	
TUESDAY	LO: recognise and use cubed numbers	<p>Times Table Test 1-13 (inverse)</p> <p>Followed by Mental questions 1-5 (3mins)</p>	<p>Show <math>2^3</math>. Ask what the <math>^3</math> means. Reveal a <math>2 \times 2 \times 2</math> cube. Explain that <math>^3</math> means you multiply a number by itself 3 times. <math>2 \times 2 \times 2</math> across <math>\times 2</math> deep. Show a <math>3 \times 3 \times 3</math> cube. What does this show you? Why is it a cube? Elicit that it is the same across and up and deep. Explain that there where as squares have two dimensions, cubes have 3; 3 up and 3 across and 3 deep. Show a <math>2 \times 2 \times 2</math> cube and a <math>3 \times 3 \times 3</math> cube and ask "if this is <math>2^3</math> and <math>3^3</math> what does <math>4^3</math> look like?". How are squared and cubed numbers the same? How are they different?</p>	<p><b>SEN/EAL</b></p> <p><b>LA</b></p> <p>How many multilink cubes are required to make the first cubed number? The second? Third?</p> <p>Calculate:</p> <p style="text-align: center;"><math>3^3 =</math>                      <math>5^3 =</math></p> <p style="text-align: center;"><math>4 \text{ cubed} =</math>                      <math>6 \text{ cubed} =</math></p>	Feedback from groups



# Class Plan Example - Year 6

	Objective/s	Mental Maths	Main teaching Key Questions	Activities Teacher / TA focus highlighted	Plenary Opportunities for Reasoning to be developed.
TUESDAY	LO: To multiply multi-digit number up to 4 digits by a 1 or 2-digit number  LO: To multiply 1d x 1d	5 a day	Put a selection of multiplication questions on the board. Children to solve and share/discuss methods used.  What is important to remember as we begin multiplying by the tensnumber?  How would you draw the calculation?  Can the inverse operation be used? Is there a different strategy that you could use?  Show the incorrect examples and ask the children to discuss why it was wrong using reasoning sentence stems.  At the same time SEN and LA children will be working with support in order to improve their understanding of multiplying by 3 and 4.  X board, model picking a number from each side. Chn chose 5 calculations to work through with the	<b>SEN/ EAL</b>  1d x 1d  Reasoning based problems – eg. If $5 \times 3 = 15$ , which number sentences would find the answer to $6 \times 3$ ? $5 \times 3 + 6$ $5 \times 3 + 3$ $15 + 3$ $15 + 6$ $3 \times 6$ Explain how you know.	Work through a maths reasoning question. Discussed the strategies used to solve problem.  Address misconceptions.
				<b>LA</b>  2d x 1d =  Chance to practise their understanding.  Gary says,  <p style="text-align: center;">If  <math>6 \times 12 = 72</math>            then  <math>12 \div 6 = 72</math></p> Is Gary correct? Explain your answer.	
				<b>MA</b>  4d x 1d = Craig says "250 ends in a zero therefore,	

# Year 6 plan for SEN pupil

	Objective/s	Mental starter	Main teaching Key Questions	Activities Teacher / TA focus highlighted	Plenary Opportunities for Reasoning to be developed.
MONDAY	To use 10 frame to explore number bonds to 10	Order number cards 1-30	What is this? A 10 frame. Explain how it works, you can add more or take away etc. Practially using counters place 4 on there, how many more are needed to make 10? .	<p>On 10 frame and counters, calculate different ways to make 10</p> <p>Use the ten frames to complete the number bonds to 10</p>  <p>4 + _ = 10      5 + _ = 10</p> <p>Can you make the ten frame that comes before in the sequence? Can you make the ten frame that comes next in the sequence?</p>	'If I add 8 and 9, the total is 19' Am I right? Prove it using 10 frame
TUESDAY	To use a 10 frame to calculate addition to 20	Order number cards 1-30 and find the missing numbers	Recap 10 frame. Model how to use it for 5 + 7. What do you notice? What do we need to do?	Use 10 frame to calculate 1 digit + 1 digit numbers.	<p>Dora has 10 p to spend.</p>  <p>5 p      6 p      4 p</p> <p>5 p      6 p      4 p</p> <p>Which two items could she buy? How many different ways can she do it?</p>

# Topic Planning – Opportunities for maths

Week	Subject	By the end of the lesson... (progression document)	Key questions	Vocabulary	Teaching & learning Differentiation	Resources							
1	Science	<p>I know something is living because it moves, breathes, grows, reproduces, excretes and require nutrition - MRSGREN</p> <p>Group living things in different ways Use classification keys to group, identify and name living things</p>	<p>How do I know something is living?</p> <p>How can I group these animals?</p> <p>What are the similarities and differences?</p> <p>How can I classify living creatures?</p>	<p>Mammal</p> <p>Invertebrate</p> <p>Vertebrate</p> <p>Mollusc</p> <p>Identify</p>	<p>Looking at pictures and models of vertebrates and invertebrates – children to group them as they wish. What similarities and differences are there?</p> <p>Introduce classification key – why would people need this?</p> <p>I know something is living because it moves, breathes, grows, reproduces, excretes and require nutrition - MRSGREN</p>	<p>Basic classification key</p>	5	Geography	<p>Use aerial photographs to locate our local, and wider, area.</p>	<p>What is nesting?</p> <p>Where are we located in the world?</p> <p>What is the population of my local area?</p>	<p>South West England</p> <p>United Kingdom</p> <p>Europe</p> <p>Aerial population</p>	<p>public footpath, a place of worship, and a car park.</p> <p>Recap on learning from previous lesson - nesting activity (aerial photos).</p> <p>Quiz jacket information recall</p> <p>The population of the United Kingdom is 66.65 million. The population of Bristol is 536,000</p> <p>Mathematical cross curricular – addition and subtraction equations using population numbers – e.g. What is the population difference between _____ and _____?</p>	<p>Aerial photographs</p> <p>Google earth</p> <p>iPads</p>
2	Science & Geography TOPIC HALF DAY	<p>Make careful and accurate observations</p> <p>Gather, record classify and present data in different ways to answer scientific questions</p> <p>I can collect and accurately measure information</p>	<p>What do you notice?</p> <p>Why do you think that is?</p> <p>How can we record and present our data?</p> <p>How does differences in environment affect the amount of living organisms found?</p>	<p>Vegetation</p> <p>Equipment</p> <p>Measure</p> <p>Record</p> <p>Observe</p>	<p>Lesson 1: Children use classification key to identify – identify living animals and their habitats in our local area – field work – using tally charts to gather data. Using a quadrat to measure data collected. Make careful and accurate observations</p> <p>Lesson 2: How does the difference in place affect how many living animals we find? (e.g. what do you notice between road/park? Why?).</p> <p>Children to create their own classification key to describe the animals that they have found.</p> <p>Children to present data using pictogram for SEN/LA, MA/HA – present data using bar charts. Use bar chart to answer questions about data e.g. how many more spiders were found than ants?</p> <p>Gather, record classify and present data in different ways to answer scientific questions</p>	<p>Printed classification keys</p> <p>Quadrats</p> <p>Sample pots</p> <p>Magnifying glasses</p> <p>Clip boards</p>	6	Science and Geography TOPIC HALF DAY	<p>Urban areas are where many people live and work, this means there are many buildings and roads. A suburb is an area where there are fewer big buildings and fewer roads.</p> <p>Species become endangered because of loss/damage of habitat and/or lack of food</p> <p>Describe how changes to an environment could endanger living things</p>	<p>How does our urban area affect our local environment?</p> <p>What impact do we have on the planet?</p> <p>How does our habitat affect local wildlife?</p>	<p>Environment</p> <p>Habitat</p>	<p>Discussion of difference between urban and suburban – how would these different environments affect the wildlife that is found there?</p> <p>Watch clip of David Attenborough – children to describe key ideas and events – whys is this happening? How do our local environments impact on these events?</p> <p>Scenario cards- cause and effect of environmental impact.</p> <p>Urban areas are where many people live and work, this means there are many buildings and roads. A suburb is an area where there are fewer big buildings and fewer roads.</p> <p>Species become endangered because of loss/damage of habitat and/or lack of food</p> <p>Describe how changes to an environment could endanger living things</p>	<p>David Attenborough clip</p> <p>Scenario cards</p>
3							7						
4	Geography	<p>Map the habitats in our local area</p> <p>These map symbols are used to identify: a public footpath, a place of worship, and a car park.</p>	<p>How can I identify my local area?</p> <p>How can I identify places in my local area?</p> <p>How can I use map symbols to locate places and features?</p>	<p>Common map symbols</p> <p>Place of worship</p> <p>Footpath</p> <p>pubic</p>	<p>Mapping local areas and identifying where living animals were found.</p> <p>Looking at key features of maps and local area – Looking at where our local area (looking at aerial photographs and local OS maps) is in relation to the world.</p> <p>Vocabulary focus on mathematical positional language</p> <p>These map symbols are used to identify: a</p>	<p>OS maps</p>		DT	<p>Children will be able to give an explanation for their habitat and relate this to real life habitats</p>		<p>Habitat</p> <p>Protection</p>	<p>Pet eggs- given children they have to design a 'good' habitat for their egg to protect their egg. Several challenges to pass- earthquake, flooding, freezer, stampede. #</p> <p>Children to explain and present their habitat</p>	<p>Boiled eggs</p> <p>Materials to build habitats</p>

			Unit building and others are sited in a converted house			
6	Science	<p><b>Identify plants and animals in a range of habitats</b></p> <p>Ask simple scientific questions Use simple equipment to make observations Carry out simple tests</p> <p>Suggest what has been found out Use simple data to answer questions</p> <p><b>Data handling</b></p>	<p>We are going to investigate what makes the best habitat for a hedgehog. What do we think a hedgehog prefers its habitat to be like? Why? (<i>dark, damp &amp; somewhere to hide</i>) Make a list. What things would it not like?</p> <p>Explain that we are going to create four different habitats for the woodlice and we will see which they prefer to stay in. Our four habitats will be:</p>	Investigation Habitats	<p>In small mixed groups <del>chn</del> to set up their four habitats in a container (sectioned in to 4)</p> <p><del>chn</del> to draw a picture of their container with its four habitats and label it. <del>chn</del> to write a prediction for their investigation (<del>deeper</del> – to give reasons for their prediction) <del>chn</del> to go and observe habitats outside (20 in total), then place them in their containers for 30 <del>mins</del>. <del>chn</del> to write about their investigation – what they are investigating, what they did.</p>	<p>Empty cardboard boxes</p> <p>Containers</p> <p>Scrap paper</p>

			during Ramadan? What matters most at Eid, would it be presents or lunch? Remembering or giving? Kindness or honesty?		Small groups to find out about fasting	of Ramadan). books, flash cards, picture
	Geography	<p><b>Learn map symbols and create own maps of own habitats.</b></p> <p><b>Measurement</b> <b>Positional</b> <b>language</b> <b>Measurement</b> <b>Distance</b></p>	<p>To look at compass points and brief reference for orientation, common symbols What are maps? When might we need to use maps? How should we hold a map? Can you draw a map of your local area? What features are you going to include?</p>	Symbol Address Street Habitat Ariel Human features Physical features	<p><del>To</del> looked at Ariel photos of our school and its surrounding and make a note of all the human features we could find. Following this, to describe and write about human and physical features.</p> <p>After watching video, <del>chn</del> use a map of the school to find their way to from one point to another.</p>	<p>Compass points Symbols on map Paper map Digital map</p> <p>Video: <a href="https://www.bbc.co.uk/teach/class-clips-video/geogra">https://www.bbc.co.uk/teach/class-clips-video/geogra</a></p>

	Art	<b><u>To understand the different grades of pencils.</u></b>	What do the different letters on the pencils mean? How does this effect how they can be used?	HB, 2B, 3H etc Soft / hard	Introduce drawing topic for term. Experiment with using different grades of pencils and order them according to tonal value (light to dark).	Graded pencils Grading activity sheet
	ICT	<b><u>See separate Computing plan</u></b>			Code.org Course C Lesson 3: My Robotic Friends	IPADs
2	Science	<b><u>Compare and group rocks based on their appearance and physical properties, giving a reason.</u></b>	What are the three types of rocks?  How are they formed?  What are their properties?  Can you give any examples of the 3 rock types?	Igneous, Metamorphic, Sedimentary, <i>Sandstone, Granite, Marble, Pumice</i> <i>Absorbent</i> <i>Permeable</i> <i>Impermeable</i> <i>Volcanic</i>	<ul style="list-style-type: none"> <li>Explore the 3 different types of rock and how they are formed using starburst sweets!</li> <li>Rock walk around our school- look at rock used and why? Linked to properties? Prep school garden with a few extra types of rock!</li> <li>Order events from Pebble in my pocket along a timeline e.g. 360 million years ago, 275 million years ago</li> </ul>	Rocks to plant in school garden / clipboards and activity sheet
3	Science	<b><u>Compare and group rocks based on their appearance and physical properties, giving a reason.</u></b>	What are their properties?	Igneous, Metamorphic, Sedimentary, <i>Sandstone, Granite, Marble, Pumice</i> <i>Absorbent</i> <i>Permeable</i> <i>Impermeable</i> <i>Volcanic</i>	Investigate the best type of rock to use as a roofing material (look at weight, permeability, durability) Children pour water over rock roof to see which keeps character most dry. Write a letter of explanation to character.  <b>Measure water in ml – fair testing</b>	Examples of rock types to be tested
	Geography	<b><u>I can locate the Earth's major volcanoes</u></b>	Where are most of the Earth's volcanoes found? Why	Pacific ring of Fire Mt Vesuvius Mt Etna Kakatoa Tectonic plate	<ul style="list-style-type: none"> <li>Indicate main volcano locations on a map of the world to show Pacific Ring of Fire</li> <li>Complete a fact file for a famous volcano</li> </ul>	<a href="https://www.volcanodiscovery.com/volcano-map.html">https://www.volcanodiscovery.com/volcano-map.html</a>  <a href="https://www.dkfindout.com/uk/earth/volcanoes/where-are-earths-volcanoes/">https://www.dkfindout.com/uk/earth/volcanoes/where-are-earths-volcanoes/</a>

5	DT	<p>Have a design for a house to withstand an earthquake</p> <p>Maths: 3D shapes</p>	<p>What materials would you use and why? How is your design strong? What would a bad design look like? What might a good design be instead?</p>	<p>Brief Materials Wood Plastic Glass Paper Metal Rock Hard Soft Bendy Strong Structure</p>	<p>Starter: What might be a sensible material to build with? What materials could we use? Share ideas.</p> <p>Show three paper structures – one tall and thin, one square and one short and fat. Which do the children think is least likely to fall over when we shake the table and why?</p> <p>From this draw our own houses and label how we have strengthened the structure.</p> <p>HA: Draw and label their design showing how both the structure and their additional features strengthen the stability of the building. MA: Children draw and label simple parts of their drawing and explain to an adult how the structure/features help strengthen the building. LA/SEN: Children draw and explain to adult how the structure helps strengthen the building. Adult scribe.</p>	<p>Material examples</p> <p>Paper structures x 3</p> <p>Paper for drawing</p>
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7	DT	<p>Built a building that can withstand an "Earthquake" using everyday materials</p> <p>Maths: Measure using time and graph</p>	<p>Is your building going to plan? What materials are you using?</p>	<p>Materials Wood Plastic Glass Paper Metal Rock Hard Soft Bendy Strong Structure</p>	<p>Provide a range of materials and adhesives and the children's designs and allow time for building their house. Question their choices and reasoning behind it whilst building and share with class sensible ideas.</p> <p>For LA/SEN: Remove materials that wouldn't make good houses from their choice of materials</p>	<p>Range of junk modelling materials/building materials</p> <p>Adhesives: tape, glue, string etc.</p>
8	DT	<p>Evaluate the building I have made</p>	<p>What worked well? What could have been better? What would you do differently if you did it again?</p>	<p>Evaluate Brief Success Improvements Materials Wood</p>	<p>Test each building by putting in the middle of the table and shaking the table for 5 seconds. Did it stay upright? Did any parts fall off? Can it fit the 3 size in?</p>	<p>Evaluation sheet.</p>