## Alfriston School

Fair, friendly, fulfilling, fun!

## Maths Parent Presentation September 2023

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-What is Mastery?
-The maths curriculum
-What does Maths Mastery look like across the schod
-An example of progression in calculation from
Reception to year 6
-Supporting your child at home
-Time for questions

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What is Mastery?

Teaching for Mastery


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## Variation

## Conceptual variation; different ways to ask children to solve 21 + 34

| 21 | 34 |
| :---: | :---: |


| Word problems: <br> In year 3, there are 21 children and in year 4, there are 34 children. How many children in total? $21+34=55 \text {. Prove it }$ | $\left[\begin{array}{c} 21 \\ +34 \\ -\overline{2 n+34}= \\ -2=21+34 \end{array}\right.$ <br> Calculate the sum of twenty-one and thirty-four. | Missing digit problems: |  |
| :---: | :---: | :---: | :---: |
|  |  | 10 s | 15 |
|  |  | (3) | (1) |
|  |  | (1) 0 | ? |
|  |  | ? | 5 |

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Representation and structure
Concrete


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## Pictorial

 - 800068

| 1 whole |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1}{2}$ |  |  |  |  |  | $\frac{1}{2}$ |  |  |  |  |  |
| $\frac{1}{3}$ |  |  |  | $\frac{1}{3}$ |  |  |  | $\frac{1}{3}$ |  |  |  |
| $\frac{1}{4}$ |  |  | $\frac{1}{4}$ |  |  | $\frac{1}{4}$ |  |  | 1 |  |  |
|  | $\frac{1}{5}$ |  | $\frac{1}{5}$ |  | $\frac{1}{5}$ |  | $\frac{1}{5}$ |  |  |  |  |
| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ |  | $\frac{1}{6}$ |  | $\frac{1}{6}$ |  | $\frac{1}{6}$ |  | $\frac{1}{6}$ |  |
| $\frac{1}{8}$ |  | $\frac{1}{8}$ | $\frac{1}{8}$ |  | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ |  | $\frac{1}{8}$ |  | $\frac{1}{8}$ |
| $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{\frac{1}{10}}$ |  | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ |  | $\frac{1}{10}$ | $\frac{1}{10}$ |
| $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |



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## Abstract

$$
\begin{array}{r}
2 \times 5=10 \\
66+32=98 \\
12+\square=17
\end{array}
$$



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Bar Model


24
In a class, 18 of the children are girls.

A quarter of the children in the class are boys.

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In a class, 18 of the children are girls.
Bar Model
A quarter of the children in the class are boys.

Altogether, how many children are there in the class?


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## Tens Frames



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## The Maths Curriculum

Focus on:
-Fluency
-Reasoning
-Problem solving

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## Fluency

To be fluent in mathematics children should be able to...
-grasp the fundamentals of mathematics

- practice arithmetic skills
- make connections
- become more confident with written and mental methods
- be confident with what they are doing and why
- recall and apply their knowledge rapidly and accurately



## Subitising

Subitising is the ability to look at a small set of objects and instantly know how many there are without counting them. For example, when rolling a dice we don't need to count the dots to know what we have rolled.




| + | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | $0+0$ | $0+1$ | $0+2$ | $0+3$ | $0+4$ | $0+5$ | $0+6$ | $0+7$ | $0+8$ | $0+9$ | $0+10$ |
| 1 | $1+0$ | $1+1$ | $1+2$ | $1+3$ | $1+4$ | $1+5$ | $1+6$ | $1+7$ | $1+8$ | $1+9$ | $1+10$ |
| 2 | $2+0$ | $2+1$ | $2+2$ | $2+3$ | $2+4$ | $2+5$ | $2+6$ | $2+7$ | $2+8$ | $2+9$ | $2+10$ |
| 3 | $3+0$ | $3+1$ | $3+2$ | $3+3$ | $3+4$ | $3+5$ | $3+6$ | $3+7$ | $3+8$ | $3+9$ | $3+10$ |
| 4 | $4+0$ | $4+1$ | $4+2$ | $4+3$ | $4+4$ | $4+5$ | $4+6$ | $4+7$ | $4+8$ | $4+9$ | $4+10$ |
| 5 | $5+0$ | $5+1$ | $5+2$ | $5+3$ | $5+4$ | $5+5$ | $5+6$ | $5+7$ | $5+8$ | $5+9$ | $5+10$ |
| 6 | $6+0$ | $6+1$ | $6+2$ | $6+3$ | $6+4$ | $6+5$ | $6+6$ | $6+7$ | $6+8$ | $6+9$ | $6+10$ |
| 7 | $7+0$ | $7+1$ | $7+2$ | $7+3$ | $7+4$ | $7+5$ | $7+6$ | $7+7$ | $7+8$ | $7+9$ | $7+10$ |
| 8 | $8+0$ | $8+1$ | $8+2$ | $8+3$ | $8+4$ | $8+5$ | $8+6$ | $8+7$ | $8+8$ | $8+9$ | $8+10$ |
| 9 | $9+0$ | $9+1$ | $9+2$ | $9+3$ | $9+4$ | $9+5$ | $9+6$ | $9+7$ | $9+8$ | $9+9$ | $9+10$ |
| 10 | $10+0$ | $10+1$ | $10+2$ | $10+3$ | $10+4$ | $10+5$ | $10+6$ | $10+7$ | $10+8$ | $10+9$ | $10+10$ |

Subtraction Grid Facts

| - | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0-0 |  |  |  |  |  |  |  |  |  |  |
| 1 | 1-0 | 1-1 |  |  |  |  |  |  |  |  |  |
| 2 | 2-0 | 2-1 | 2-2 |  |  |  |  |  |  |  |  |
| 3 | 3-0 | 3-1 | 3-2 | 3-3 |  |  |  |  |  |  |  |
| 4 | 4-0 | 4-1 | 4-2 | 4-3 | 4-4 |  |  |  |  |  |  |
| 5 | 5-0 | 5-1 | 5-2 | 5-3 | 5-4 | 5-5 |  |  |  |  |  |
| 6 | 6-0 | 6-1 | $6-2$ | 6-3 | 6-4 | 6-5 | 6-6 |  |  |  |  |
| 7 | 7-0 | 7-1 | $7-2$ | 7-3 | 7-4 | 7-5 | 7-6 | 7-7 |  |  |  |
| 8 | $8-0$ | $8-1$ | $8-2$ | 8-3 | 8-4 | 8-5 | 8-6 | $8-7$ | 8-8 |  |  |
| 9 | 9-0 | 9-1 | $9-2$ | $9-3$ | 9-4 | $9-5$ | $9-6$ | $9-7$ | 9-8 | 9-9 |  |
| 10 | $10-0$ | 10-1 | 10-2 | $10-3$ | 10-4 | 10-5 | 10-6 | 10-7 | 10-8 | 10-9 | 10-10 |
| 11 |  | 11-1 | 11-2 | 11-3 | 11-4 | 11-5 | 11-6 | 11-7 | 11-8 | 11-9 | 11-10 |
| 12 |  |  | 12-2 | 12-3 | 12-4 | 12-5 | 12-6 | 12-7 | 12-8 | 12-9 | 12-10 |
| 13 |  |  |  | 13-3 | 13-4 | 13-5 | 13-6 | $13-7$ | 13-8 | 13-9 | 13-10 |
| 14 |  |  |  |  | 14-4 | $14-5$ | 14-6 | 14-7 | 14-8 | 14-9 | 14-10 |
| 15 |  |  |  |  |  | 15-5 | 15-6 | 15-7 | 15-8 | 15-9 | 15-10 |
| 16 |  |  |  |  |  |  | $16-6$ | $16-7$ | 16-8 | 16-9 | 16-10 |
| 17 |  |  |  |  |  |  |  | $17-7$ | 17-8 | 17-9 | 17-10 |
| 18 |  |  |  |  |  |  |  |  | 18-8 | 18-9 | 18-10 |
| 19 |  |  |  |  |  |  |  |  |  | 19-9 | 19-10 |
| 20 |  |  |  |  |  |  |  |  |  |  | 20-10 |

Calculation Strategies


NSM Number Facts Calculation Strategies

| One More, One Less | When we add one, we qet the next countinq number. When we subtract one, we get the previous counting number (e.g. $5-1=4$ ). | Number Neighbours: Spot the Difference | Adjacent numbers have a difference of 1 . Adjacent odds and evens have a difference of 2. <br> Spot number neighbours (adjacent, odds or evens) to solve subtractions of adjacent numbers (e.g. $5-4=1$ ). of adjacent odds (e.g. 9-7=2) or adjacent evens (eg. 6-4 = 2) |
| :---: | :---: | :---: | :---: |
| Two More, Two Less: Think Odds and Evens | If we add two to a number, we go from odd to next odd or even to next even. If we subtract two from a number, we go from odd to previous odd or even to previous even. | 7 Tree and 9 Square | Use these visual images to remember addition and subtractions fact families that children can find tricky. For example, visualising the 7 tree helps remember that $7-3=4$. Visualising the 9 square helps remember that $3+6=9$. |
| Number 10 Fact Families | Go beyond just recalling the pairs of numbers that add to 10 . Make sure that we can also spot additions and subtractions which we can use number bonds to 10 to solve. |  | The numbers 11-20 are made up cf 'Ten and a Bit'. Recognising and understanding the 'Ten and a Bit' structure of these numbers enables addition and subtraction facts involving their constituent parts (e.g. 3 $+10=13,17-7=10,12-10=2$ ). |
| Five and A Bit $\mathrm{NOH}_{\mathrm{SH}}$ | The numbers 6, 7, 8 and 9 are made up of 'five and a bit'. This can be shown on hands, and supports decomposition of these numbers into their five and a bit parts (e.g. $5+3=8,9-5=4$ ). | Make Ten and Then... | Additions which cross the 10 boundary can be calculated by 'Making Ten' first, and then adding on the remaining amount (e.g. $8+6$ can be calculated by thinking ' $8+2=10$ and 4 more makes 14 '). The same strategy can be applied to subtractions through 10. |
| Know about 0 | When we add 0 to or subtract 0 from another number, the total remains the same. If we subtract a number from itself, the difference is 0 . | Adjust lt | Any addition and subtraction can be calculated by adjusting from a fact you know already, (e.g. $6+9$ is one less than $6+10$ ). |
| Doubles and Near Doubles | Memorise doubles of numbers to 10 , using a visual approach. Then use these known double facts to calculate near doubles and hidden doubles. Once we know $6+6=12$ then $6+7$ and $5+7$ is easy. | Swap It | When the order of two numbers being added (addends) is exchanged the total remains the same. E.g. $1+8=8$ +1 . Sometimes reversing the order of the two addends makes addition easier to think about conceptually. |


| 2 times | 3 times | 4 times |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| tables | tables | 5 times <br> tables | 6 times <br> tables | 7 times <br> tables | 8 times <br> tables | 9 times <br> tables | tables |

$$
2 \times 2=4
$$

$$
3 \times 2=6 \quad 3 \times 3=9
$$

$$
4 \times 2=8 \quad 4 \times 3=12 \quad 4 \times 4=16
$$

$$
5 \times 2=10 \quad 5 \times 3=15 \quad 5 \times 4=20 \quad 5 \times 5=25
$$

$$
6 \times 2=12 \quad 6 \times 3=18 \quad 6 \times 4=24
$$

$$
6 \times 5=30 \quad 6 \times 6=36
$$

$$
7 \times 2=14 \quad 7 \times 3=21 \quad 7 \times 4=28 \quad 7 \times 5=35 \quad 7 \times 6=42 \quad 7 \times 7=49
$$



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## Reasoning

Through reasoning problems children should...

- be able to explain why an answer is right or wrong
- follow a line of enquiry to a logical conclusion
- prove theories using mathematical language


# Which would you rather have? <br> $2 \times 5$ toys <br> or <br> $5 \times 2$ toys 

A quarter is when we share something into two equal pieces.

True or false?

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## Problem Solving

Children should be able to...

- apply their mathematics to a variety of routine and non-routine situations
- put maths into context
- break down problems into a series of manageable steps


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I Des has some oranges.
He packs them into boxes.
Each box holds 5 oranges.


He fills 7 boxes.
He has 29 oranges left.
How many oranges does he have in total?

## Noah



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## What does Mastery look like across the school?

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Mastery in Reception


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These all show 2. True or false?

With children, count out 1,2 or 3 items and hide them.

Ask children to use their fingers to show how many are hidden.


Ask children to watch as you add 1 more item to the hidden group.

How many are hidden now? What if you take one out?


Which one is the odd one out? Explain your ideas to a grown up.


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Mastery in years 1 and 2

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Max labels an odd number on the number line.
He spills some paint over his number.
What could Max's number be?


## Mastery in years 1 and 2

What fraction is the red part of the whole circle?

## Explain your reasoning.



Jack has made a cube using 12 sticks and 8 balls of modelling clay.


What shape could he make with:
6 sticks and 4 balls of clay?
4 long sticks, 8 short sticks 8 balls of clay?

Sam splits a rectangle into quarters.


Do you agree with Sam?
Explain your answer.

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Mastery in years 3 and 4

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Mastery in years 3 and 4 o00000000000000000000000000

These two numbers are the same.


Explain why.

Key vocabulary
number
represent
represents
group
grouped
grouping
count
hundreds
tens
ones
how many?
value

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## Mastery in years 3 and 4




Key vocabulary
number
represent
represents
group
grouped
grouping
count
hundreds
tens
ones
how many?
value

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## Mastery in years 3 and 4



- What numbers are represented?


Key vocabulary number
represent
represents
group
grouped
grouping
count
hundreds
tens
ones
how many?
value

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## Mastery in years 3 and 4



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Mastery in years 5 and 6

## What number is shown in the place value chart?

| Thousands |  |  |  | Ones |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H | T | O | H | T | O |  |
| $O$ |  | $O$ | $O$ | $O$ |  |  |
| $O$ |  | $O$ | $O$ |  |  |  |
|  |  | $O$ |  |  |  |  |
|  |  |  |  |  |  |  |

Have a think

What number is shown in the place value chart?

| 406,320 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 400,000 | 0 | 6,00 | 300 | 20 | 0 |
| Thousands 0 |  |  | Ones |  |  |
| H | T | 0 | H | T | 0 |
| $\begin{aligned} & \bigcirc \bigcirc \\ & \bigcirc \bigcirc \bigcirc \end{aligned}$ |  | $\begin{aligned} & 00 \\ & 00 \end{aligned}$ | $\bigcirc$ | $\bigcirc \bigcirc$ |  |
| 4 | 0 | 6 | 3 | 2 | 0 |

What number is shown in the place value chart? 406,320

Have a think

| Thousands |  |  | Ones |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $H$ | $T$ | 0 | $H$ | $T$ | 0 |
|  | $O$ | $O$ | $O$ | $O$ | $O$ |
|  |  | $O$ | $O$ |  |  |
|  |  | $O$ |  |  |  |

What will the number be if you add three counters to the ten-thousands column?

436,320

The number is 43,210

| HTh | TTh | Th | H | T | O |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  | 1000 |  |  |  |
|  |  |  |  |  |  |

What mistake has Tiny made?


Tiny did not include 0 as a place holder in the ten- thousand column.

Have a go at questions 1-4 on the worksheet

Rosie is thinking of a 6-digit number.
The greatest digit has the largest possible value. The second digit is double the last digit.
The first and last digits add up to 11
The last 3 digits add up to 14
The value of the digit in the thousands column is 3 The value of the digit in the hundreds column is 7

What is Rosie's number?


## Irueorfalse?

Alex and Amir have represented the same number.


100


## False

## Alex has represented 200,100

Amir has represented 200,010

1) $300+4+10,000=$
2) $\mathrm{C}=$
| =
$X=$
$\mathrm{V}=$
3) What does ascending mean?
4) What does descending mean?
5) $300+4+10,000=10,304$
6) $\mathrm{C}=100$

I = 1
$X=10$
$V=5$
3) What does ascending mean? Increasing in size
4) What does descending mean? Decreasing in size

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## Questioning

Why?
What happens if....?
How do you know?
Will that always happen?
Can you prove it to me?

Our Maths Calculation Policy

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\#MathsEveryoneCan

Year 1-6
Calculation Policy
Multiplication and Division
\#MathsEveryoneCan

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## Calculation progression examples

Multiplication from year R to 6

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Pearl Class



Double 1 is



Double 2 is



## Multiplication in Year 1 - Summer



Use cubes and a range of containers such as bun trays, egg boxes and paint pallets.


Allow children to explore using the cubes and discuss all the different ways to fill the containers.

There are $\qquad$ rows/columns.

There are $\qquad$ cubes in each row/column.

Circle each row of sweets.


How many rows are there?

Kim and Mo write number sentences to

Complete the sentences.
a) There are $\square$ counters in each row.

There are $\square$ rows.

There are $\square$ counters altogether.
match the array.

Mo

## Who is correct?

Explain your answer.


## Multiplication in Year 2

Complete the sentences to match the picture.

$\qquad$ $-+$ $\qquad$ $=$ $\qquad$
$\qquad$ $\times$ $\qquad$ $=$ $\qquad$
There are $\qquad$ water bottles.

Can you see a different repeated addition and multiplication in the picture?

Draw dots to show each multiplication in two ways. The first one has been done for you.

| Multiplication | Array 1 | Array 2 |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
| $2 \times 8$ |  |  |
| $4 \times 5$ |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## True orfalse?

All of the number sentences can all be used to find the total of the array.
$5+5+5+5+5+5$


$$
6+6+6+6+6
$$

## Challenges - problem solving

Draw an array to show $7 \times 3$
Complete the number sentence.
$7 \times 3=\square$
Is there more than one way to draw the array?

The answer to a multiplication question is 18

What could the multiplication be?


How many possible questions can you find?


Tiny has hidden part of an array.


There are fewer than 16 counters
in total.


What could the array be?
Talk about it with a partner.

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## Sapphire Class

A minibus has space for 21 people.
How many people can fit on 3 minibuses?
Use a place value chart and base 10 to help you.

3 tens $\times 2=\ldots$ tens
2 ones $\times 2=$ $\qquad$ ones
$\qquad$
$\qquad$
$\qquad$
$32 \times 2=$ $\qquad$
01010
"11110
De

Work out the multiplications.

| Tens | Ones |
| :---: | :---: |
| WIUTIT | Ee |
| WHITI |  |
| WIITIT |  |
| WIIIIT | - |
| Wण1T0 |  |
| WUITITM |  |

Ron has used a part-whole model to multiply 23 by 3


$$
\begin{aligned}
20 \times 3 & =60 \\
3 \times 3 & =9 \\
23 \times 3 & =69
\end{aligned}
$$

$32 \times 3$

$$
23 \times 2
$$

Use a part-whole model to help you work out the multiplications.

| $21 \times 5$ |
| :--- |$\quad 42 \times 2 \times 2 \quad 21 \times 6$

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## Sapphire Class

Dora uses place value count
alongside the written
multiplication to work out $34 \times$

| Tens | Ones |
| :---: | :---: |
| (10) 10 | 10 10 |
| 10 | 1 |


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  | $T$ | 0 |  |
|  |  | 3 | 4 |  |
|  | $\times$ |  | 2 |  |
|  |  |  | 8 |  |
|  |  | 6 | 0 |  |
|  |  | 6 | 8 |  |
|  |  |  |  |  |

$$
(4 \times 2=8)
$$

$$
(30 \times 2=60)
$$

Use Dora's method to work out the multiplications.


- Brett and Scott have each worked out $34 \times 5$


Scott


- Jo uses place value counters to work out $24 \times 3$

| Tens | Ones |
| :--- | :--- |
| 10 | 1 |
| 10 | 1 |
| 10 | 1 |

- What is the same about their methods?
- What is different about their methods?
- Whose method is more efficient?


Use Jo's method to work out the multiplications.
$\square$

Key vocabulary partition product same / different equal multiple multiplying how many represents
digit
sum
column
method efficient

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## Emerald Class

$$
23 \times 30=690
$$

| X | W111010 | 011110 | 911110 |
| :---: | :---: | :---: | :---: |
| 为 | ППППП | ППП\# | ПППППП |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  | - |  |
|  |  | $\square$ | $\square$ |
| 丑 |  | IT | TIT |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| $\square$ | W11T1T10 | W11T1T0 | TH111T |
| $\square$ | W11TUT | W111110 | W111110 |
| $\square$ | Wmmmb | W1m010 | Wmmm |

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## Emerald Class

$23 \times 22=$

| $\times$ |  |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |

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## Emerald Class

$23 \times 22=$


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## Emerald Class

| $\times$ | 叫 | पाएाए｜ | － | $\bullet$ |
| :---: | :---: | :---: | :---: | :---: |
| 自 |  | \＃ | 目 | 乪 |
| $\begin{aligned} & \mathrm{E} \\ & \mathrm{E} \\ & \mathrm{E} \\ & \mathrm{E} \\ & \mathrm{E} \end{aligned}$ |  |  | E E E E E E | 界 |

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## Emerald Class

$23 \times 22=506$


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## Emerald Class

| $21 \times 12=252$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\times$ | (1) 3 | (1) | $\times$ | 20 | 1 |
| (1) | (100) 100 | (1) | 10 | 200 | 10 |
| (1) | $\begin{aligned} & 10) \\ & 10) \end{aligned}$ | (1) | 2 | 40 | 2 |
| $200+40+10+2=252$ |  |  |  |  |  |

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## Emerald Class

$22 \times 13=$

| $\times$ |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

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## Emerald Class

$22 \times 13=286$

| $\times$ | 20 | 2 |
| :---: | :---: | :---: |
| 10 | 200 | 20 |
| 3 | 60 | 6 |

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## Emerald Class

$$
23 \times 31
$$

| $\times$ | 20 | 3 | H | T | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2 | 3 |
| 30 | 600 | 90 |  |  | 1 |
| 1 | 20 |  |  |  | 3 |
| $600+90+20+3=713$ |  |  |  |  |  |

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## Emerald Class

$23 \times 31$


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## Emerald Class

$$
23 \times 31
$$

| $\times$ | 20 | 3 | $H$ | $T$ | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 600 | 90 |  |  | 2,3 |
| 1 | 20 | 3 |  |  |  |

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## Emerald Class

$23 \times 31$

| $\times$ | 20 | 3 |  | $H$ | $T$ | 0 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 600 |  |  |  |  |  |  |

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## Emerald Class

$$
23 \times 31
$$

| $x$ | 20 | 3 |
| :---: | :---: | :---: |
| 30 | 600 | 90 |
| 1 | 20 | 3 |

$$
600+90+20+3=713
$$

|  | $H$ | T | O |  |
| ---: | ---: | ---: | ---: | ---: |
|  |  | 2 | 3 |  |
| $\times$ |  | 3 | 1 |  |
|  |  | 2 | 3 |  |
| + | 6 | 9 | 0 |  |
|  | 7 | 1 | 3 |  |

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How can you support your child with maths at home?

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Key Instant Recall Facts - KIRFs

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## Key Instant Recall Facts

Year 1 - Autumn 1

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## Key Instant Recall Facts - KIRF

- Termly objectives


## I can count, read and write numbers to 100

By the end of this half term, children should know the following facts. The aim is for them to recall these facts instantly

- I can count forwards to 100
- Years Reception to 6
- Improve children's fluency
- Instant recall of facts


## Top Tips

The secret to success is practising little and often. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day

Use practical resources - Grab handfuls of pasta or buttons and ask your child to count them

What are the best ways to work on these facts?
,

- I can count in ones starting at any number up to 100
- I can count backwards from 100
- I can count backwards from 100 starting at any number
- I can write numbers to 100
- I can recognise numbers to 100

| Key vocabulary |
| :---: |
| Forwards |
| Backwards |
|  |

Key vocabulary
Backwards
can recognise numbers to 100

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On the website
A list of websites which can be used to support home learning


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## Questions and time to explore resources

## But first, please fill out our evaluation!

Thank you very much for coming

