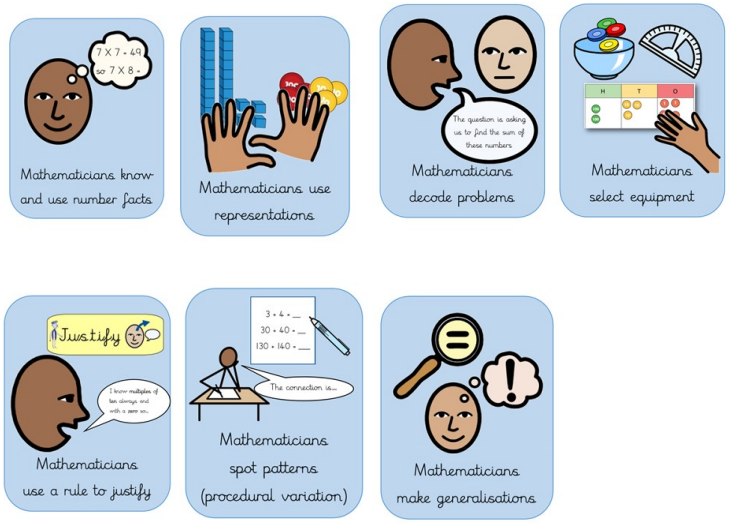
Brecknock Primary School
A lighthouse of learning

LORRIANO PRIMARY SCHOOL

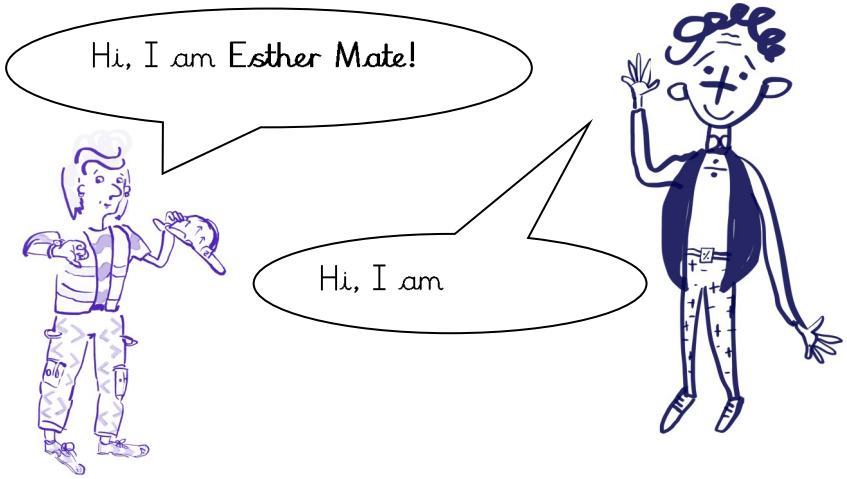
Year 4 Parent Support Pack



This support pack focuses on skills you can practise at home with your child:

In this pack, you will find:

- **Key Skills and facts**—What will your child learn this year? What facts should they be confident in?
- **Reasoning prompts**—What questions can you ask whilst your child does their Maths Homework?
- **Fluency Games**—Fun maths for everyday!



Maths skills to focus on:

- Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100 and divide 1,000 into 2, 4, 5 and 10 equal parts.
- Recognise the place value of each digit in four -digit numbers .
- Recall multiplication and division facts up to 12 X 12 and use these facts to solve multiplication and division word problems.
- Scale addition and subtraction facts by 100 (I know that 3–2 = 1 so 30–20 = 10)
- Reason about the location of mixed numbers in the linear number system.

Reasoning Prompts and sentence stems:

- We use sentence stems in many of our maths lessons to help with our reasoning.
- Why did you choose this method?

"I chose this method because..."

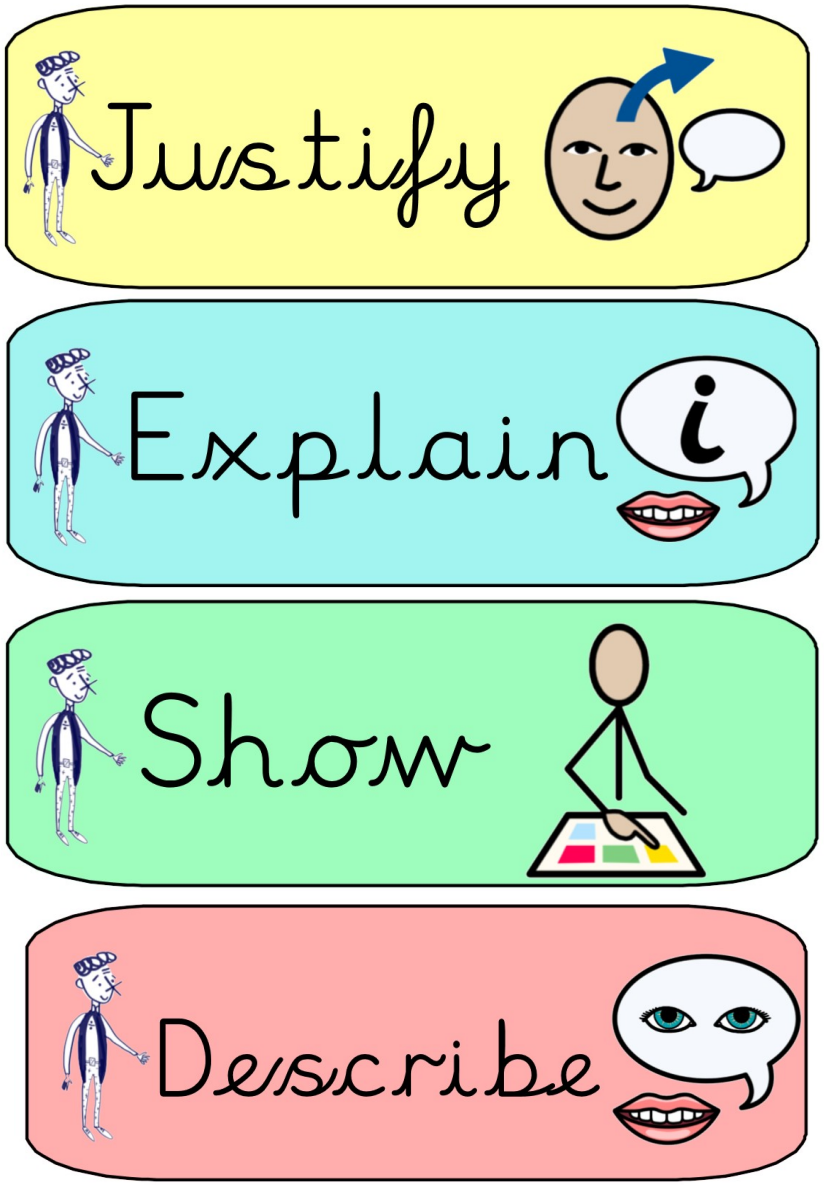
(It is easier for me/the question needs me to use this method/there are lots of steps/the numbers are larger)

- Prove your answer is correct.

"I know that ..... therefore I know that..."

- How did you get this answer?
- How did you know which operation to use to solve the problem?
- *"The word _____ appears in the question. This tells me that I need to..."*
- Convince me that...
  - *"I will use this rule to convince you..."*
- Spot the pattern, explain the pattern.
- If the answer is ..... what was the question?

The Add'em Scale:



At school we use the Add'em Scale to extend the reasoning and problem solving skills.

This is introduced to children in EYFS and used throughout the school.

Children begin with **describe** and **show** at the bottom of the scale and build to **explaining** and **justifying**.

Examples of questioning:

Justify: Make an estimate. What has guided your thinking?

Explain: Continue the pattern. How did you know what came next?

Show: Draw me another example of the question you just solved.

Describe: Describe what you can see. Describe what your first step would be in solving this.

Number fluency facts:

- These are number fluency facts that the children should know (be able to say the answer verbally in under 3 seconds).

+	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

- The facts outside the staircase should be focused on in year 1 and the other facts including inside the staircase are to be focused on in year 2 and 3.

This is the sequence for learning their number facts:

- Adding 1 (blue)
- Doubles (orange)
- Adding 2 (pale yellow)
- Story of 10 (bright yellow)
- Adding zero (green)
- Near doubles (grey)
- Adding 10 (purple)
- Additional facts (pink)

+	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

Multiplication facts:

In Year 4, Children should be confident reciting and using the 2, 4, 5, 8, 10

Throughout the year, they will continue to learn the 3, 6 and 9 times tables and learn the 11 and 12 x tables.

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

They should be confident in their **3, 6, 9, 11 and 12 times tables** by the end of the year.

We use rules to teach times tables to each year group. The rules that Year 4 learn are:

- The 12 x table is **double** the 6x table.
- The 12x table is **quadruple** the 3x table.

They should already be familiar with these rules:

- The 10x table is **double** the 5x table.
- The 5x table ends with a **5 or a 0.**
- The 10 x table **ends with a 0.**
- The 2x table ends with an even number.
- The 4x table is **double** the 2x table.
- The 8x table is **double** the 4x table.
- The 4x and 8x tables end with even numbers.
- The 6x table is **double** the 3x table.
- The 9x table is **triple** the 3x table.

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

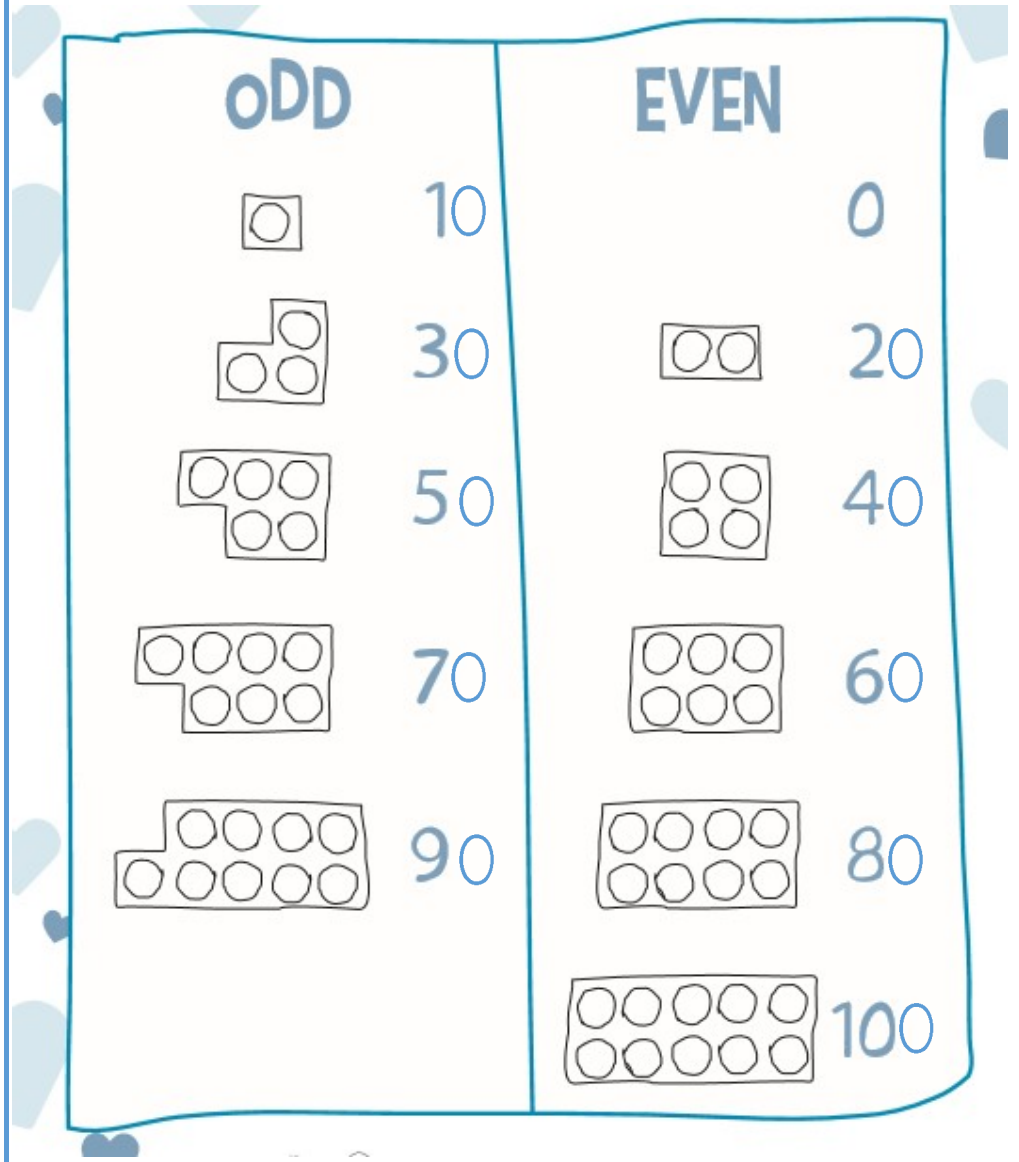
I love maths

- Game for 2 players
- One person is odd, one person is even (you can pick a number from any side though!)
- Like rock paper scissors shake your hand with fist closed saying I-Love-Maths.
- Open your hand on 'Maths' and reveal 0-5 fingers (Each number represents one ten so 3 fingers equals 30)
- Add up the total of fingers
- If the total has an odd number of tens, the odd person gets a point. If the number has an even number of tens, the even person gets a point.
- First person to 10 points wins

You can teach the marching rhyme to learn odd and even numbers:

'Odd numbers it's time to shine (children repeat), we end in 1, 3, 5, 7, 9.

Even numbers don't be late (children repeat) we end in 0, 2, 4, 6, 8'



Rounding

Use three dice.

If you have only one dice, roll it 3 times.

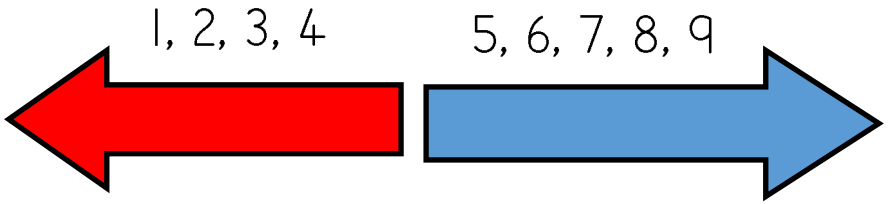
- Make three-digit numbers, e.g. if you roll 2, 4 and 6, you could make 246, 264, 426, 462, 624 and 642.

- Ask your child to round the three-digit number to the nearest multiple of 10. Check whether it is correct, e.g.

76 to the nearest multiple of 10 is 80.

134 to the nearest multiple of 10 is 130.

(A number ending in a 5 always **rounds up**.)



Speedy number bond pairs to 100

Make a set of 12 cards showing the multiples of10 from 0 to 100, but with two 50s.

If you wish, you could use playing cards.

- Shuffle the cards and give them to your child.
- Time how long it takes to find all the pairs to 100.
- Repeat later in the week. See if your child can beat his / her time.

0	10	20	30	40	50
50	60	70	80	90	100

Fractions at Home:

Fractions of objects: Find objects that have been divided in to equal parts in your home (e.g. window frames, pair of sunglasses, sliced apples)

Ask the questions: *What is the whole?*

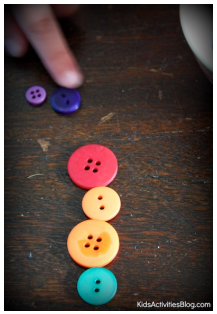
How many equal parts are there?

Fractions of Amounts: Use 12 buttons, or paper clips or dried beans or...

- Ask your child to find **half** of the 12 things.
- Now find one **quarter** of the same group.
- Find one **third** of the whole group.

Repeat with other numbers.

"There are 6 buttons. One third of the buttons is 2."



Measurement at home:

Can you tell the time?: Whenever possible, ask your child to tell you the time to the nearest 5 minutes. Use a clock with hands as well as a digital watch or clock.

Time your child doing various tasks, e.g.

- getting ready for school;
- tidying a bedroom;
- saying the 5 times, 10 times or 2 times table...

Cupboard maths: Ask your child to look at the weights printed on jars, tins and packets in the food cupboard, e.g. tinned tuna 185g, tinned tomatoes 400g

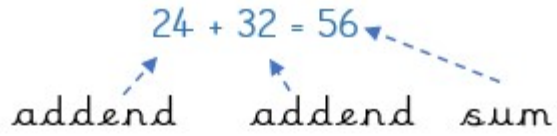
Choose six items. Ask your child to put them in order. Is the largest item the heaviest?

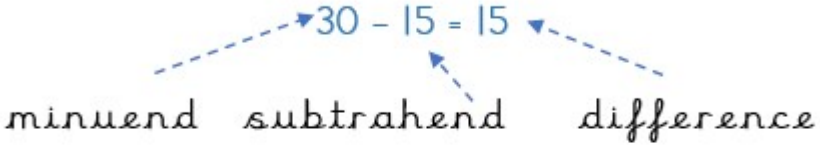
Length/Height/Width:		Volume/Capacity:		Mass:	
1m	100cm	1L	1000ml	1kg	1000g
1cm	10mm			1g	10mg

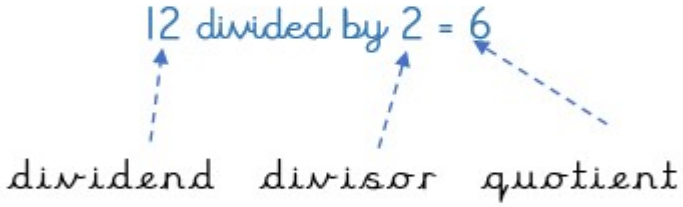
Time:	
1hour	60 minutes
1 minute	60 seconds

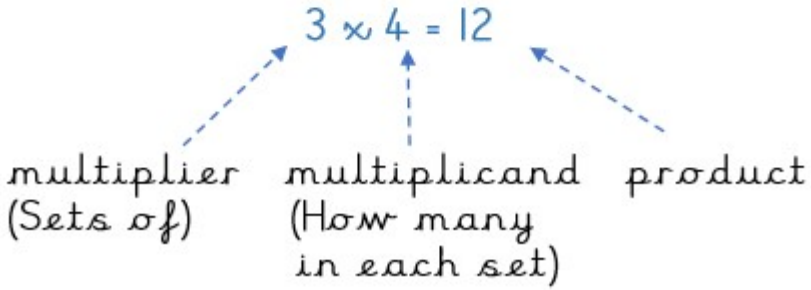
It is always useful to have conversions on display at home.

Key vocabulary in Year 4:









Year 4 MTC

The purpose of the check is to determine whether your child can fluently recall their times tables up to 12, which is essential for future success in mathematics. It will also help your child's school to identify if your child may need additional support.

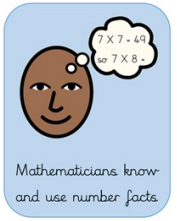
The MTC is...

It is an on-screen check consisting of 25 times table questions. Your child will be able to answer 3 practice questions before taking the actual check. They will then have 6 seconds to answer each question. On average, the check should take no longer than 5 minutes to complete.

More info for parents—click here

Your child has a Times Table Rockstar Login

When it comes to times tables, speed AND accuracy are important – the more facts your child remembers, the easier it is for them to do harder calculations. Times Table Rock Stars is a fun and challenging programme designed to help students master the times tables! To be a Times Table Rock Star you need to answer any multiplication fact up to 12×12 in less than 3 seconds!



Logging in to Times Tables Rock Stars

1. Type **play.ttrockstars.com** into your browser's address bar.
2. Click Login! > School > Student
3. Enter the School Name.

4. Enter your child's username and password.