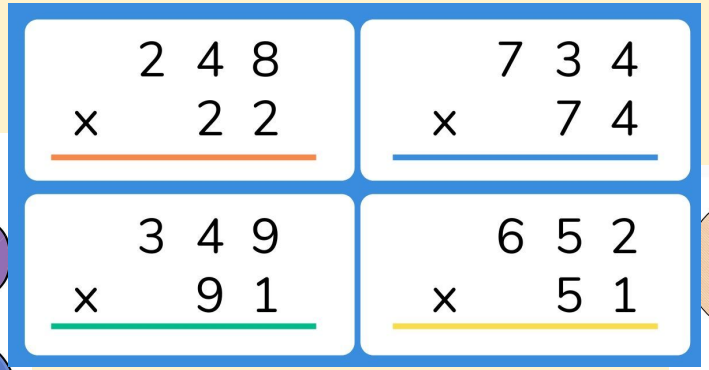
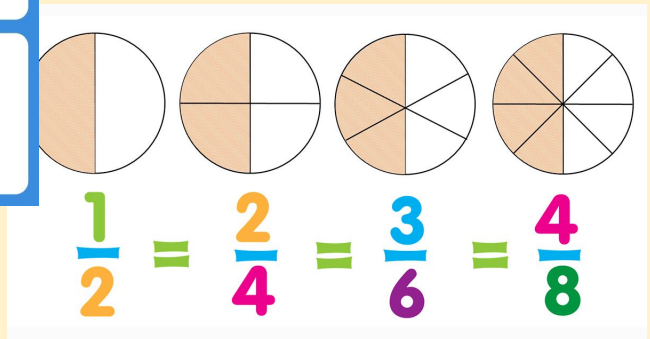
Welcome to our Maths Information Evening





Do you have a positive attitude towards maths?

Did you enjoy maths at school?

We are going to look at:

- Calculation methods (10mins)
- Times tables (10mins)
- Maths resources / how to use your maths pack (10mins)

Calculations

On your table, you have been given some examples of SAT style questions, you're going to be given a few minutes to attempt some of the questions.

https://primarysite-prod-sorted.s3.amazonaws.com/greatbinfields/UploadedDocument/8108734d30a34aeea958a7a8518d4061/ks2-example-sats-questions.pdf

Which methods did you use?

Does it matter if these are different to the ones we teach in school?

How did the activity make you feel?

Did you work alone or in a pair or group?

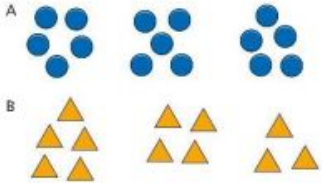
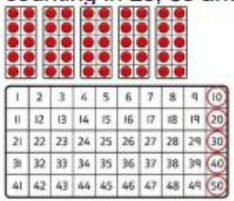
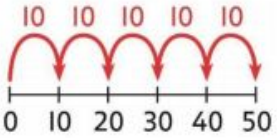
Progression in calculations - multiplication

Each year group learns a new method or builds on a method previously taught Building on their understanding of mathematical concepts.

The framework for Early Years changed in September 2021. There are now 7 prime areas we focus on, mathematics being one of them.

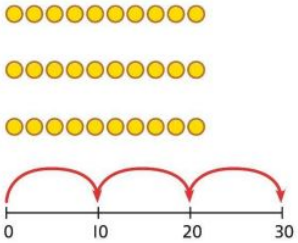
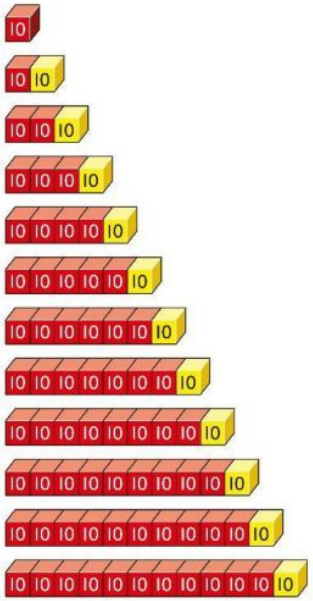
Miss McWhirter is going to go through the ELGs for maths in more depth when we explore the maths packs.

Progression in calculations - multiplication

Year 1 Multiplication	**Recognising and making equal groups** Children arrange objects in equal and unequal groups and understand how to recognise whether they are equal. 	**Recognising and making equal groups** Children draw and represent equal and unequal groups. 	**Describe equal groups using words** *Three equal groups of 4.* *Four equal groups of 3.*
	Finding the total of equal groups by counting in 2s, 5s and 10s  There are 5 pens in each pack … 5…10…15…20…25…30…35…40…	**Finding the total of equal groups by counting in 2s, 5s and 10s** 100 squares and ten frames support counting in 2s, 5s and 10s. 	**Finding the total of equal groups by counting in 2s, 5s and 10s** Use a number line to support repeated addition through counting in 2s, 5s and 10s. 

In Year 1, multiplication is very practical and verbal.

Progression in calculations - multiplication

Learning ×2, ×5 and ×10 table facts	Develop an understanding of how to unitise groups of 2, 5 and 10 and learn corresponding times-table facts.	Understand how to relate counting in unitised groups and repeated addition with knowing key times-table facts.	Understand how the times-tables increase and contain patterns.
	 *3 groups of 10 … 10, 20, 30* *3 × 10 = 30*	 *10 + 10 + 10 = 30* *3 × 10 = 30*	 *5 × 10 = 50* *6 × 10 = 60*

In Year 2, they learn about arrays, repeated addition (3 + 3 + 3 = 9 3 x 3 = 9), commutativity (2 x 3 = 6, 3 x 2 = 6) and 2, 5 and 10 times table. More abstract

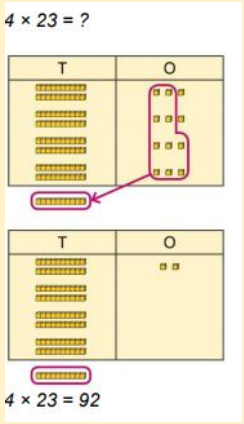
Progression in calculations - multiplication

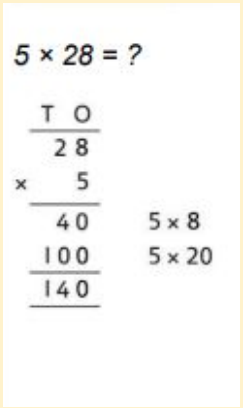
Year 3

Using known number facts to multiply 10s, for example - 3 x 5 = 15 so, 3 x 50 = 150

Understanding and using x3, x4 and x8

Multiply a 2-digit number by a 1-digit number. Grid method and expanded column method





Progression in calculations - multiplication

Year 4

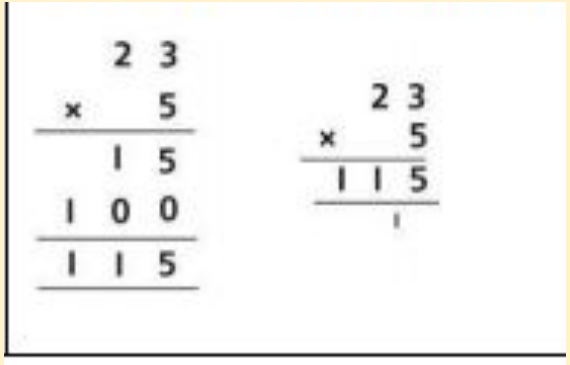
Multiplying by 10 and 100 - secure place value knowledge needed

Understanding and using times tables up to 12 x 12

Partitioning - 18 x 6 = 10 x 6 = 60 8 x 6 = 48

Column multiplication for 3 by 1 digit numbers

Multiplying more than two numbers



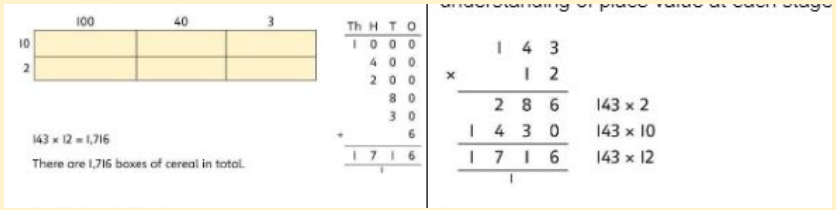
Progression in calculation - multiplication

Year 5

Multiply by 10, 100 and 1000, including decimals

Multiply up to 4 digit numbers by a single digit

Multiply up to 4 digit numbers by 2 digit numbers



	100	40	3
10			
2			

143 × 12 = 1,716

There are 1,716 boxes of cereal in total.

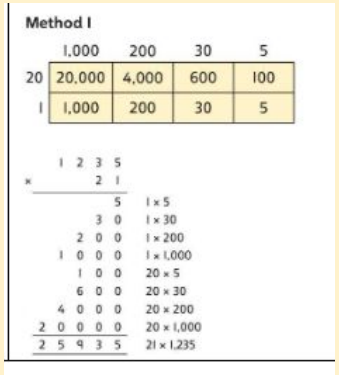
	Th	H	T	O
	1	0	0	0
		4	0	0
		2	0	0
			8	0
			3	0
+				6
	1	7	1	6
		1		

		1	4	3
×			1	2
		2	8	6
	1	4	3	0
	1	7	1	6
			1	

143 × 2

143 × 10

143 × 12



Method I

	1,000	200	30	5
20	20,000	4,000	600	100
1	1,000	200	30	5

	1	2	3	5	
×			2	1	
				5	1 × 5
			3	0	1 × 30
		2	0	0	1 × 200
	1	0	0	0	1 × 1,000
		1	0	0	20 × 5
		6	0	0	20 × 30
	4	0	0	0	20 × 200
2	0	0	0	0	20 × 1,000
2	5	9	3	5	21 × 1,235

Year 6

Multiplying decimals

Calculations

Calculation policies are on our website

Curriculum

Maths

KS1 Calculation policy

LKS2 Calculation policy

UKS2 Calculation policy

Attitude

- Don’t tell your child you are hopeless at maths. You may remember maths as being hard, but you were not hopeless. It portrays the message ‘I was hopeless at maths, and I’m a successful adult, therefore, maths isn’t important’
- ‘Growth mindset’ - the important of perseverance and challenge
- It is important to note that all children are different and progress at different rates

Curriculum expectations – year group progression

By the end of the year:

Year Group	
1	Mixed add and subtract to 10
2	Number bonds to 20: mixed + and – to 20 Mixed x and ÷ of 2,5,10 Addition and subtraction of TU and U, TU and U, TU and TU and U + U + U? Number bonds of tens to 100
3	Mixed x and ÷ of 2,5,10,3,4,8
4	Mixed x and ÷ 2,5,10,3,4,6,7,8,9,11,12
5	decimals x 2,5,10,3,4,6,7,8,9,11,12 • Multiply and divide numbers mentally, drawing upon known facts • Multiply and divide whole numbers and those involving decimals by 10,100,1000
6	Perform mental calculations, including with mixed operations and large numbers

Are Times Tables Important?

- Times tables are the **foundation** of mathematical learning and are building blocks upon which other mathematical thinking is built.
- Helping your child to **memorise** their times tables ensures that working out maths problems become quicker and easier for your child to solve
- Times tables begin to **unlock** the relation that exists between numbers.
- They also help to build knowledge of important mathematical **concepts** such as patterns and sequences, fractions, percentages and even shape.
- Successful recall of times tables will increase your child's **confidence** in maths exponentially.

The importance of number bonds.

- What are number bonds?
- How this supports the work further up the school – when doing calculations, using known facts to help with larger numbers e.g.
  - $5 + 4 = 9$ so $40 + 50 = 90$
  - $48 + 35 = 48 + 2$ (because I know 8 and 2 = 10 and it is easier to add to a multiple of 10) $+ 33 = 50 + 33 = 80 + 3 = 83$
- Knowing number bonds will help when carrying out written methods, otherwise it means learning a method and struggling with small calculations

Activities to support the learning of times tables at home…

- Activities - using playing cards, bingo, hand clapping game
- Songs - youtube have some brilliant clips
- Times table rockstars
- Web based games - topmarks - hit the button
- Link to division - missing number fire questions

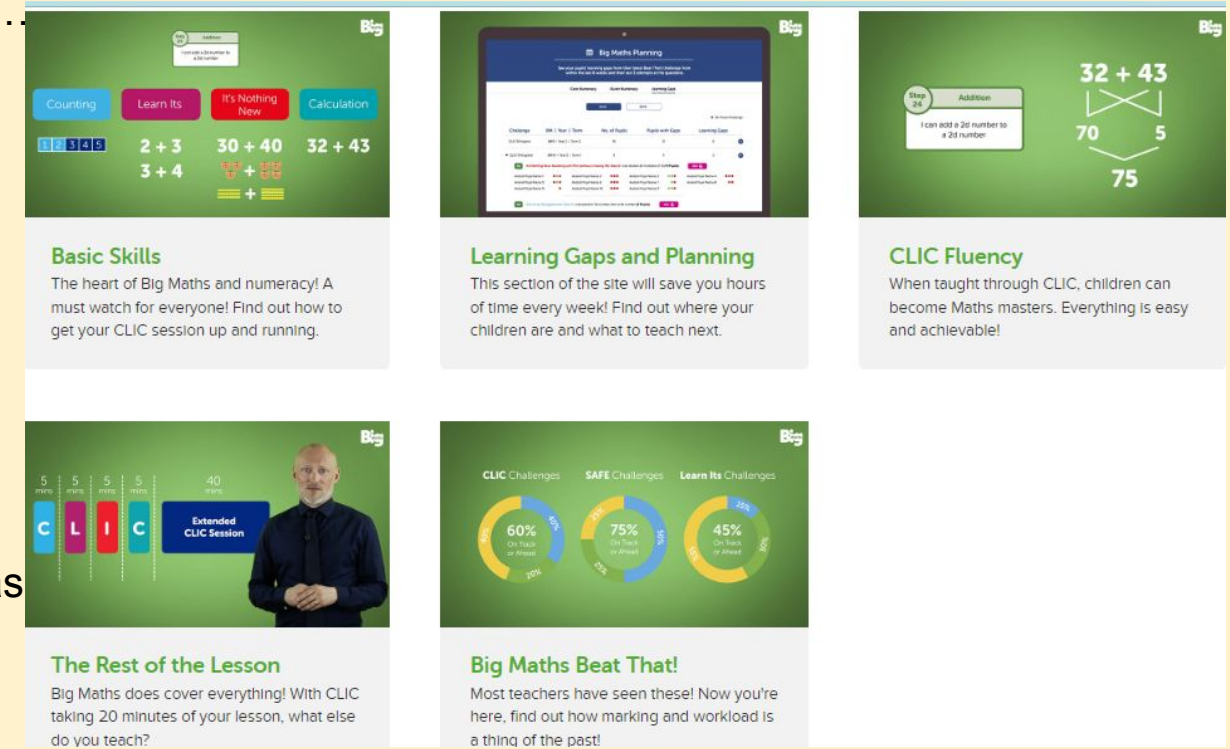
At School we use Big Maths and TTRS alongside maths lessons to support the children's learning

Firstly, an insight into Big Maths…

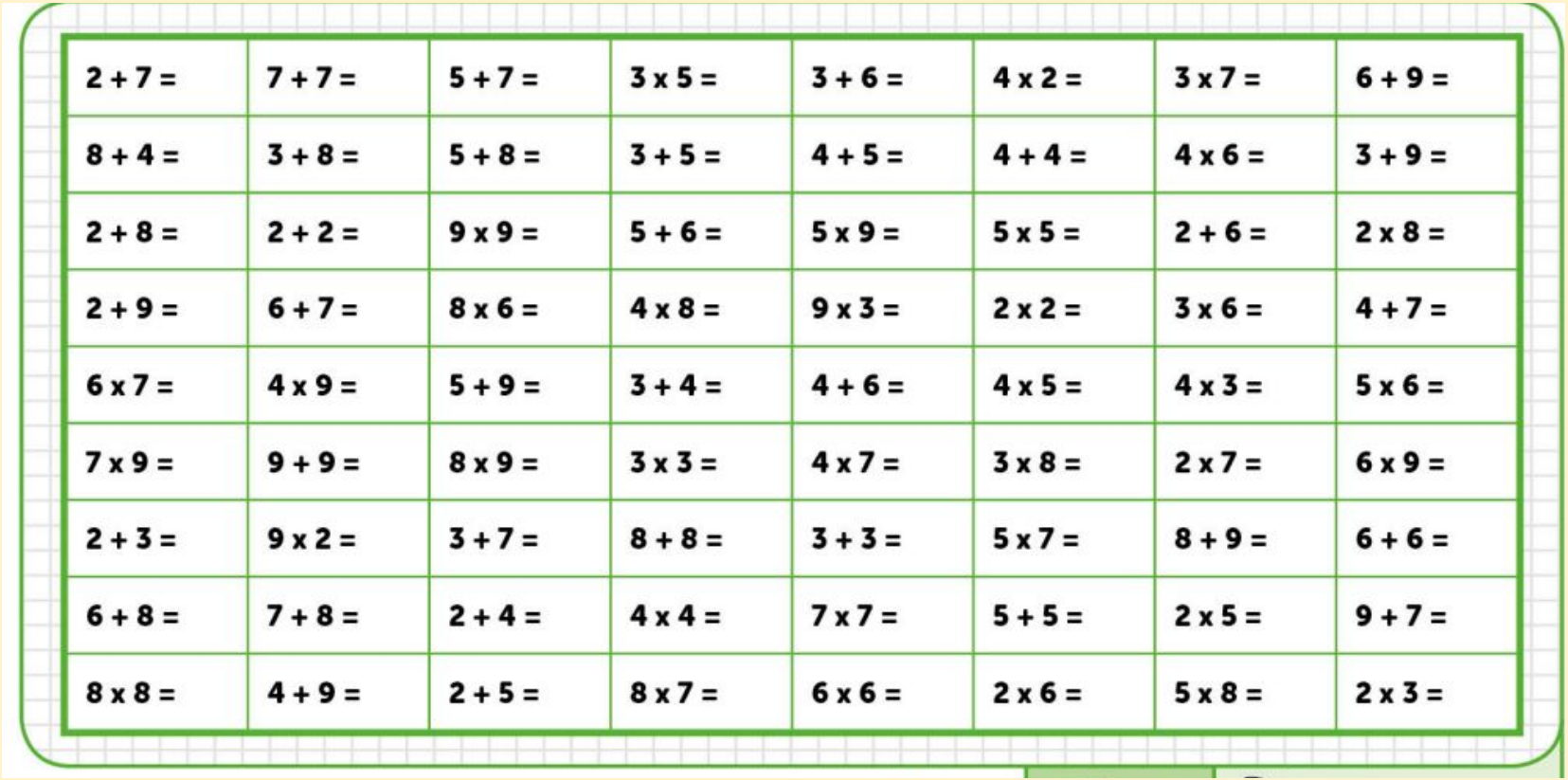
The children complete a 15 minute taught big maths session every day.

Big Maths lessons are fast and fun. Children work on whiteboards and 'flash' answers to their teachers.

We focus on the need to have maths facts instantly available, rather than counting on fingers as this makes the children more confident and successful.

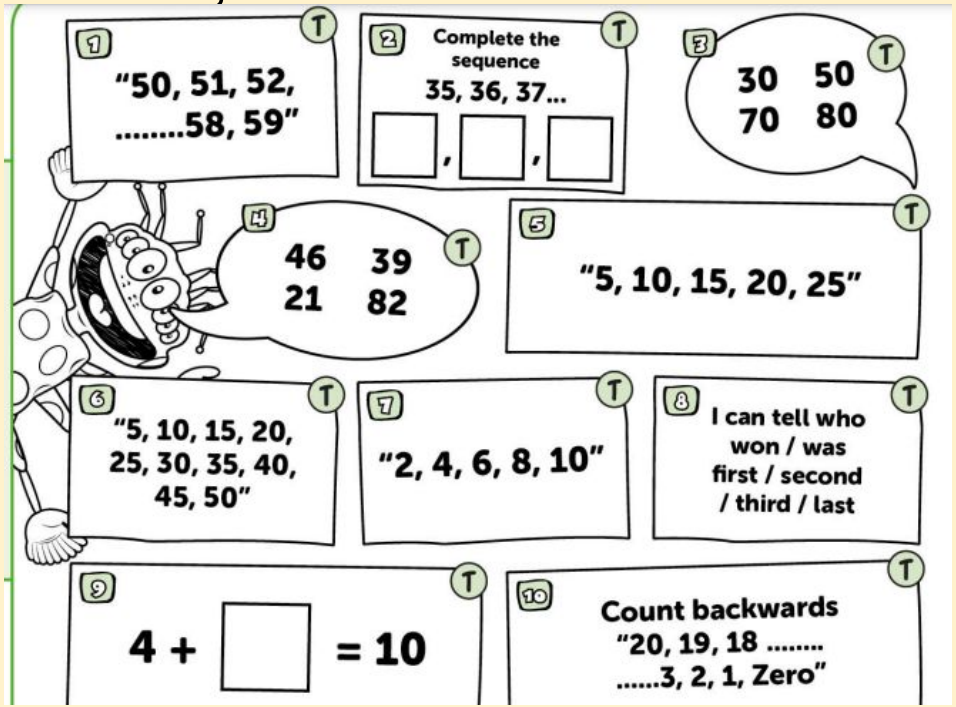


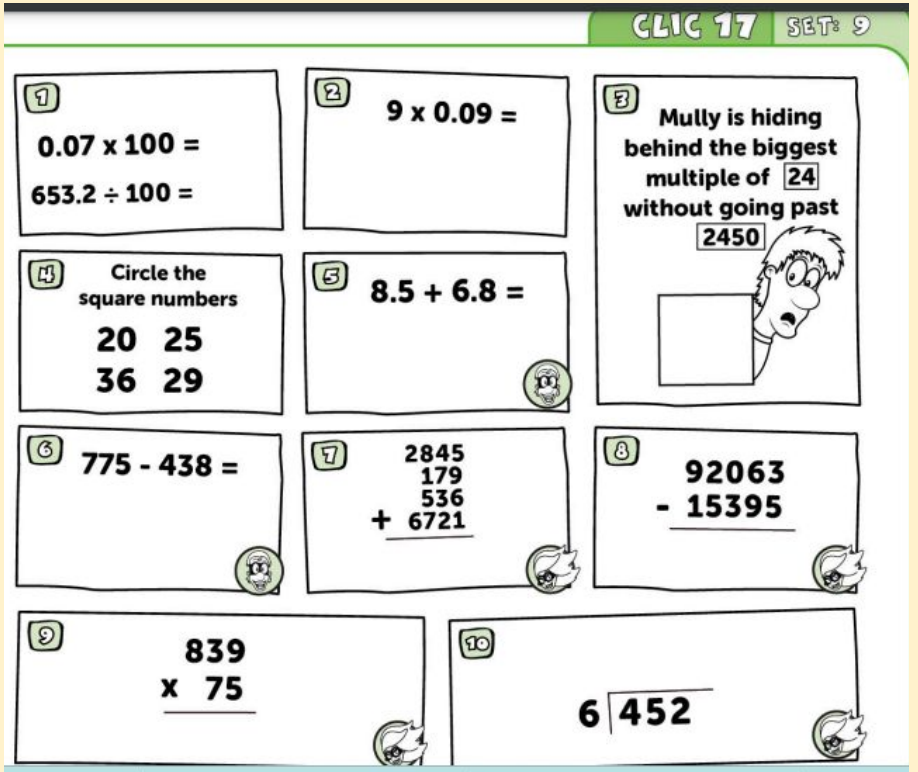
Every Friday, every class complete their BEAT THAT challenges. LEARN IT…



2 + 7 =	7 + 7 =	5 + 7 =	3 x 5 =	3 + 6 =	4 x 2 =	3 x 7 =	6 + 9 =
8 + 4 =	3 + 8 =	5 + 8 =	3 + 5 =	4 + 5 =	4 + 4 =	4 x 6 =	3 + 9 =
2 + 8 =	2 + 2 =	9 x 9 =	5 + 6 =	5 x 9 =	5 x 5 =	2 + 6 =	2 x 8 =
2 + 9 =	6 + 7 =	8 x 6 =	4 x 8 =	9 x 3 =	2 x 2 =	3 x 6 =	4 + 7 =
6 x 7 =	4 x 9 =	5 + 9 =	3 + 4 =	4 + 6 =	4 x 5 =	4 x 3 =	5 x 6 =
7 x 9 =	9 + 9 =	8 x 9 =	3 x 3 =	4 x 7 =	3 x 8 =	2 x 7 =	6 x 9 =
2 + 3 =	9 x 2 =	3 + 7 =	8 + 8 =	3 + 3 =	5 x 7 =	8 + 9 =	6 + 6 =
6 + 8 =	7 + 8 =	2 + 4 =	4 x 4 =	7 x 7 =	5 + 5 =	2 x 5 =	9 + 7 =
8 x 8 =	4 + 9 =	2 + 5 =	8 x 7 =	6 x 6 =	2 x 6 =	5 x 8 =	2 x 3 =

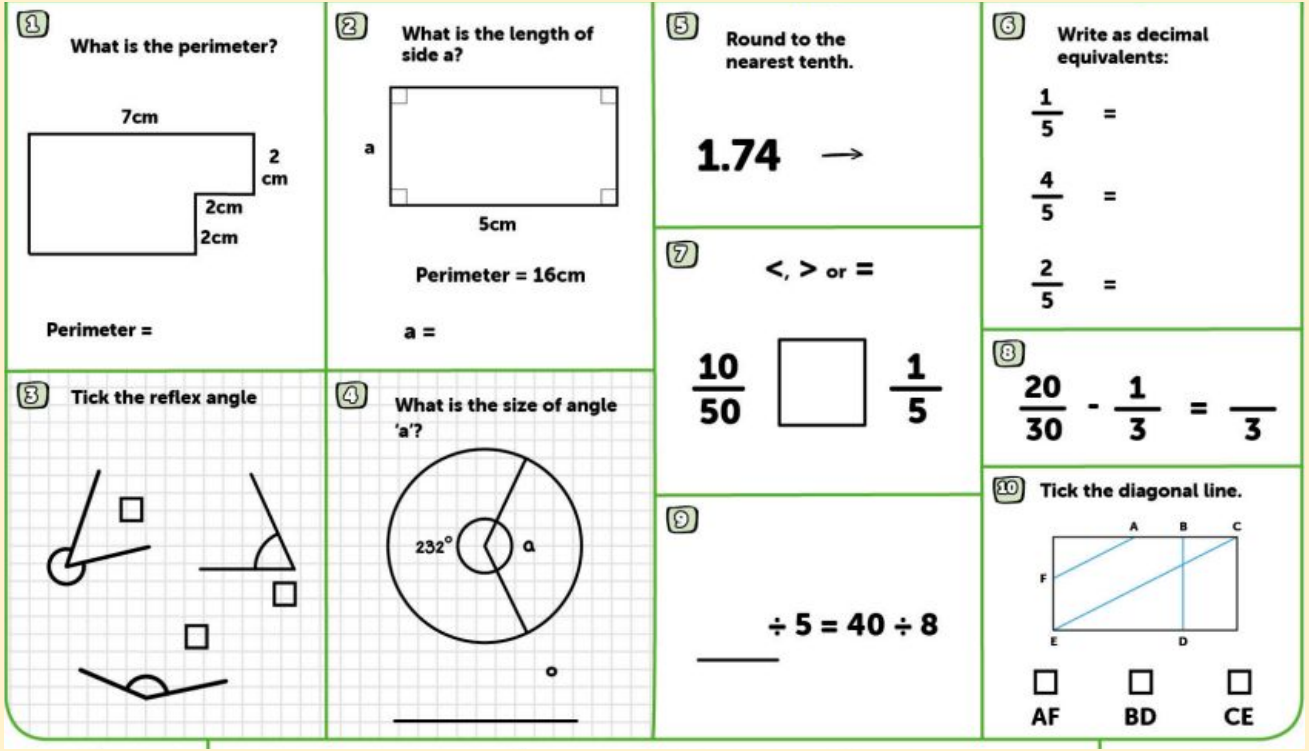
CLIC CHALLENGE - Counting, Learn It, It's Nothing New, Calculation





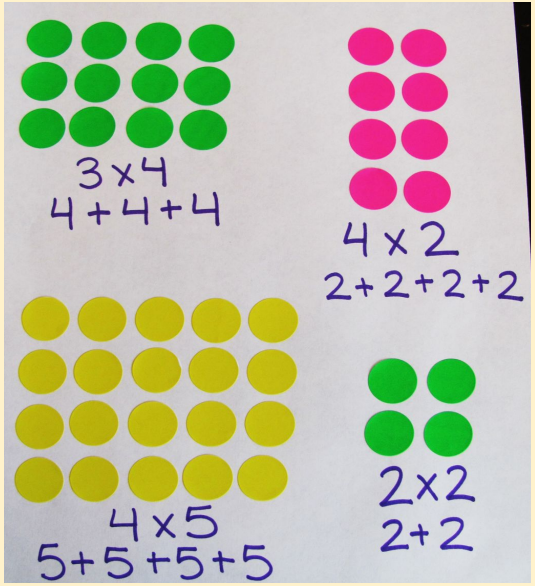
SAFE Challenge - Shape, Amounts, Fractions and Explaining

Year 6 level…



Vocabulary…

Arrays, repeated addition



Commutative link -
3 x 9 = 27 9 x 3 = 27

Product, factor, sum, multiples, remainder

Sharing - share £15 between 5 chi
Grouping - How many groups of 6 eggs from 18?

TTRS

https://ttrockstars.com/