Maths

A guide to supporting your child with their times tables

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

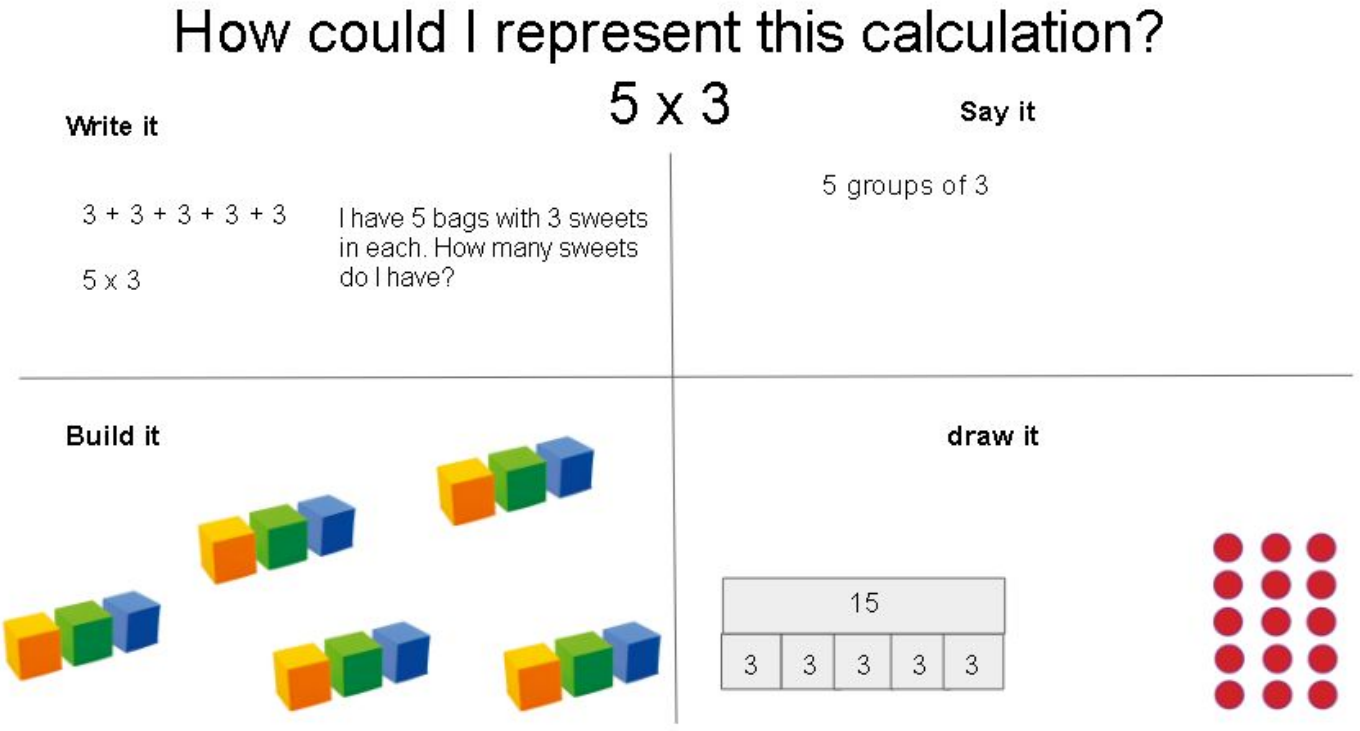
Mental fluency in each year group

Year Group	Core mental knowledge needed
Foundation Stage	Count reliably to 20.
	Order numbers 1-20
	Say 1 more/1 less to 20
	Counting in 10's, 5's and 2's
	Know doubles and halves to 10
	Add and subtract two single digit numbers
Year 1	Add and subtract 1 to a 2 digit number
	Adding and Subtracting within 10
	Number bonds to 10 and 20
	Counting in 10's, 5's and 2's Start to know multiplication and division facts
	Know halves of even numbers to 20
	Know doubles to 10
	Add and subtract 10 to a 2 digit number
Year 2	Know all the pairs of numbers to 10, 12 and pairs with total of 20 as well as bonds to 100 (multiples of 10)
	Count on and back in ones and tens from any given 2 – digit number
	Add and subtract multiples of 10 to any give 2-digit number
	Say 10 more/less than any number to 100
	Begin to count in 3's and learn the 3x table.
	Learn 2x, 5x, and 10x table (looking at lots of) Know multiplication and division facts
	Double and begin to halve numbers to 40 and multiples of 10 and 100
	Begin to double two-digit numbers less than 50 with digits of 1,2,3,4 or 5

Year Group	Core mental knowledge needed
Year 3	Halve even numbers up to 100, halve odd numbers to 20.
	Double numbers up to 50
	Begin to learn to count in 3's, 4's, 6's, 7's, 8's and 9's. Begin to know the 3x, 4x 6x, 7x, 8x and 9x tables. Begin to know multiplication and related division facts
	Multiply and divide any number by 10
	Find 10 or 100 more/less than a given number. Count on in 50's from 0
Year 4	Count in 7s and 9's. Know 6x and 8x tables and relevant division facts
	Divide multiples of 100 by 1-digit numbers using division facts (3200 ÷ 8= 400)
	Multiply mentally one digit by two digit numbers
	Count in 3's, 4's, 6's, 7's 8's and 9's. Know 3x, 4x, 6x, 7x, 8x and 9x tables and relevant division facts
	Count in multiples of 25
	Begin to count in 11's and 12's Know the 11x and 12x table and relevant division facts
Year 5	Know all tables and apply related division facts
	Know square numbers and square roots up to 144.
	Recall prime numbers upto 19
	Know number bonds to 1 and to the next whole number
	Double and halve money by partitioning (Half of £75.40 = Half of £75 (37.50) plus half of 40p)
	Use knowledge of factors and multiples in multiplication e.g (43 x 6 is double 43 x 3 and 28 x 50 is half of 28 x 100 = 1400)
	Count up/down in thousands
Year 6	Use place value and number facts in mental multiplication (4,000 x 6 = 24,000)
	Know by heart all multiplication and division facts up to 12 x 12. Apply and extend (eg to factors and multiples, fractions, ratio, percentage)
	Derive quickly and without difficulty, number bonds to 1000 and apply to all numbers

Practical activities

- Building times tables
- Build it, draw it, write it, say it
- Use this to derive division facts

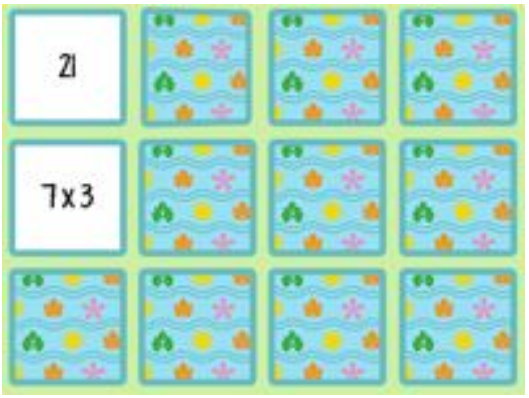


Counting activities

- Counting in different times tables (1 x 3 = 3, 1 group of 3 is 3, 3, 6, 9 …
- Counting stick (make links with doubling and halving etc)
- Counting using the hundred square
- Counting in silly voices
- Counting when walking up stairs
- Round robin (pass paper and write as many of the times table as possible in a minute)
- Counting tennis (with your hand mime hitting the ball to each other whilst counting)

Memory games

Matching Cards



Based on the nrich game
https://nrich.maths.org/1252
Using a template provided, or making your own with the times tables your child is working on, write the calculation on one piece of card and the answer on another. Placing these face down, you then need to look for matching pairs. If your child selects two that don't match, ask them why they know this?

This is a useful activity as you can bring in the competitive element of the game and also use as it a chance to include lots of dialogue about the tables. Additionally, through adapting the cards used, you can make it individual to your child and the tables they are working on. There are various adaptations to this activity as shown below.

Adaptations

- For KS1, you may wish to have more cards (the repeated addition number sentence, times table, array and the answer)
- For KS2, you may wish to use related number facts. E.G. If you are working on the 4 times tables, you could gradually start include 0.8 x 4, 3600/ 40, $\frac{1}{4}$ of 48
- Once you have played this against each other, your child could practise against themselves trying to get quicker and quicker. As they remember the tables quicker, they will be able to find the pairs quicker.

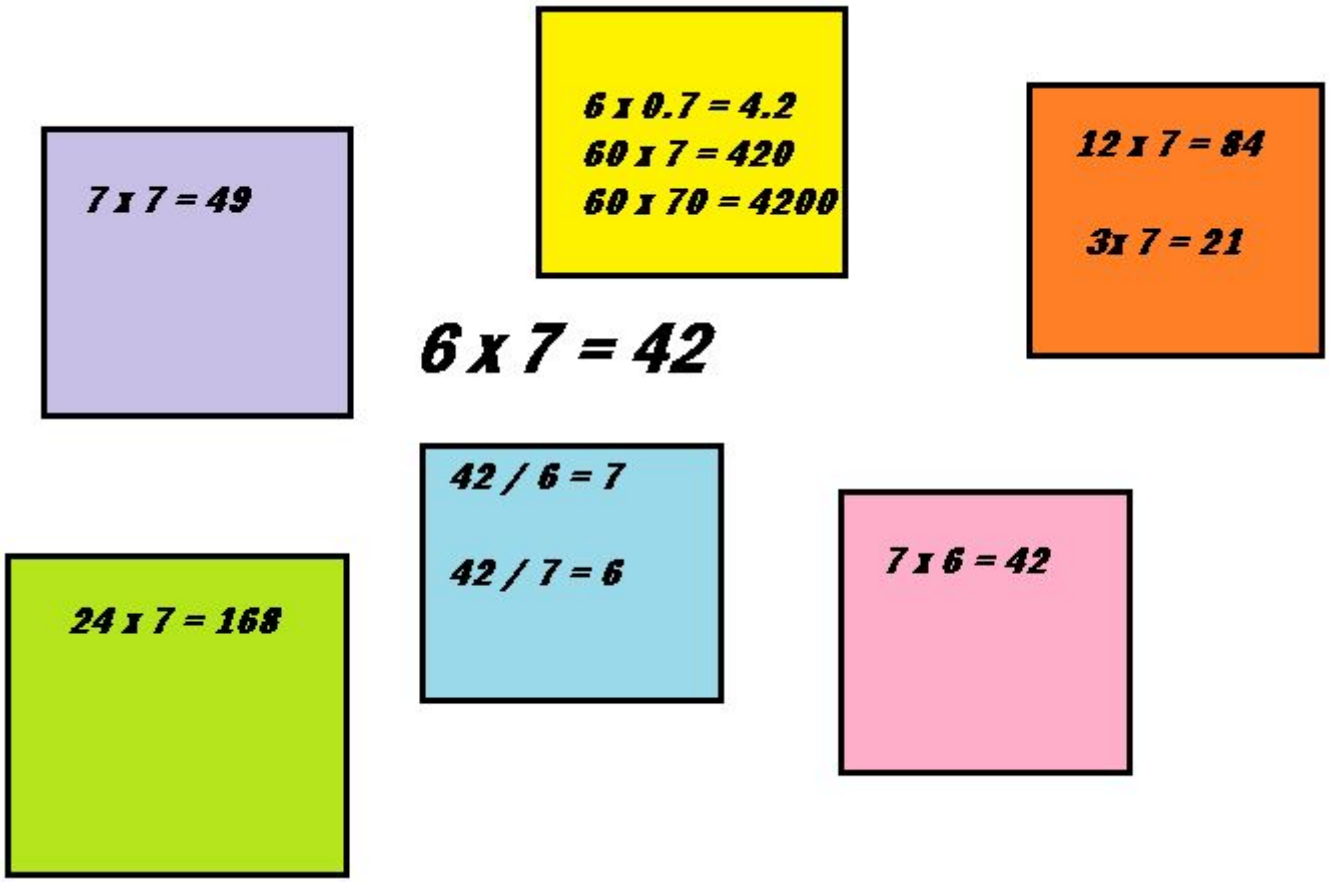
Suggested vocabulary/ questioning/ conversations

- How do you know these cards are a pair/ are not a pair?
- I know this because …
- "6 x 2 cannot equal 10 as I know that 5 x 2 = 10. *Therefore 6 x 2 must be bigger as 6 is bigger than 5. The answer will be 12 as 6 is 1 bigger than 5 and 2x1 = 2 so 10+2 = 12.* **Depending on the year group, your child may also wish to draw out this problem.**

Pattern spotting and making links

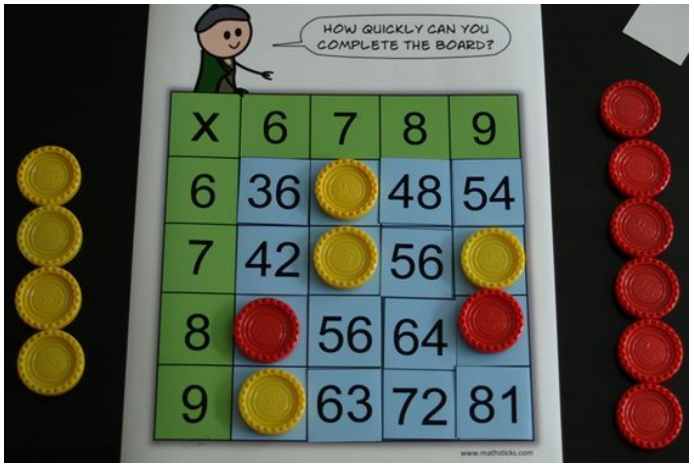
If I know … , I also know …

Have a focus times table for the week and pick a table from this. Develop conversations about what it tells you. Keep adding sticky notes to the table during the week.



Games

Three in a row



By answering the questions correctly, place your counter onto the board. Race to be the first to get three in a row. Alternatively fill the grid with numbers (eg numbers in the 8 times table). This time, to place the counter, you need to say a times table fact that links with that number. E.G. For 64, you could say 8 x 8 or 80 x 0.8 or 16 x 4 and so on. The first to get three in a row wins!

Fizz Buzz

Start of by recapping the times table. Then, start counting from 1 and replace the table with fizz. To make this more difficult you can include multiple tables. You can start trying to get quicker and quicker at this until one of you makes a mistake.

E.G

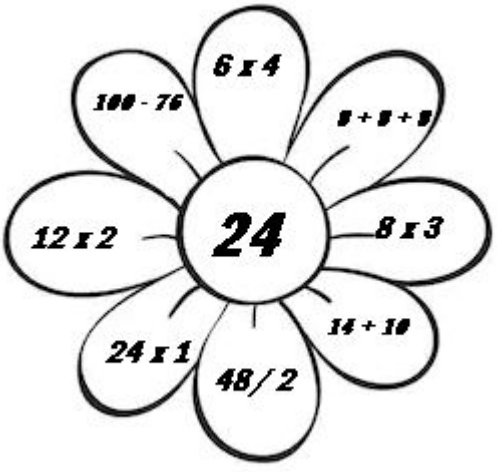
Four times table - 1, 2, 3, fizz, 5, 6, 7, fizz

Four and eights - 1, 2, 3, fizz, 5, 6, 7, fizz buzz

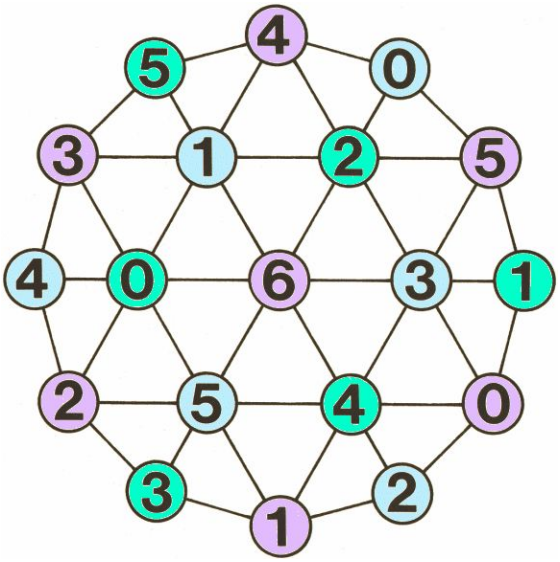
Four and threes - 1, 2, fizz, buzz, 5, fizz, 7, buzz, fizz, 10, 11, fizz buzz

Flower Power!

Write a number into the centre of a flower or a star. Then write different times tables/ number facts around the outside (or in the petals). Your child needs to describe these facts to you without using the specific numbers. E.G. for 6 x 4 you could say "It is a calculation that equals 24 when two numbers are multiplied. One of these numbers is half of 12, the other is double 2).



You could bring in compass points/ angles/ directional vocabulary with this. E.G. "at the point of the star that is at a right angle to North when turning clockwise …"



Totality

Either use the existing board, or write on the blank one to use times tables of your choice and play the game. You can alter and adapt the rules however you wish; however the recommended rules would be as follows. All players place their counters on a starting number (this could be the same one or different). On their go, they slide their counter to a new space and multiply their numbers together. If they were on 4 and move to 3, they would multiply 4 x 3. They then add this to their total. On their next go they may move from 3 to 6 so they would do 3 x 6. Their current total would be 12 + 18 = 30. You can decide your target number and any further adaptations to the game.

Adaptations

- Can you and a subtract from your target?
- Do you have to make your target exactly?
- Can you land on the same space as someone else?
- Do you want to make the numbers larger?
- You could make your target more varied. E.G a multiple of 4 between 60 and 80.

Mathletics and times table rockstars

Encourage your child to play on these. Certificates are handed out in assembly