Welcome to the Year 5 Maths Workshop

MATH CAN FUN!

If this is the answer, what is the question?
How many can you think of?

72

You can use all four operations + - x ÷

Aims of the workshop

- To get an insight into age related expectations in Year 5 Mathematics.

- To take away some ideas to support your children at home.

- To work with your child /ren and take part in a variety of maths activities.

What MATHS can you see?

When did you last use maths?

Key aims of national curriculum

Become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

Can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
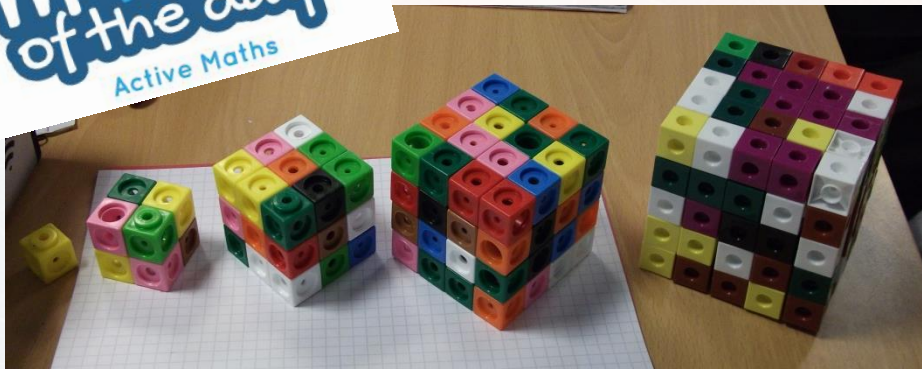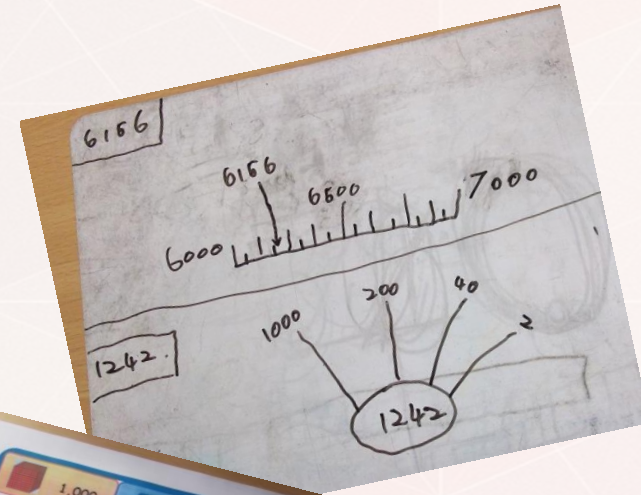
Curriculum coverage

Autumn	Number **Place value**	Number **Addition and subtraction**	Number **Multiplication and division A**	Number **Fractions A**	
Spring	Number **Multiplication and division B**	Number **Fractions B**	Number **Decimals and percentages**	Measurement **Perimeter and area**	**Statistics**
Summer	Geometry **Shape**	Geometry **Position and direction**	Number **Decimals**	Number **Negative numbers** · Measurement **Converting units**	Measurement **Volume**

Active Maths

Using apparatus and diagrams to aid learning

WHY IS IT HELPFUL TO KNOW THE TIMES TABLES?

Times tables (like adding and subtracting) need to be strong for your maths house to stay up.

PLAY IN 8 DIFFERENT GAME MODES!

Pupil View

Average per Table
How quickly Charlie correctly answers each table. Measured in seconds per question. Under 3s/q is considered to be automatic recall.

10 ×	2 ×	5 ×	3 ×	4 ×	8 ×	6 ×	7 ×	9 ×	11 ×	12 ×
2.7s	3.1s	3.6s	3.9s	8.7s	5.0s	5.4s	5.5s	4.6s	4.9s	9.6s

Heatmap
How quickly Charlie correctly answers each individual question. The greener the faster.

2-12× | 2-20× | [ ] heatmap as of 03 Oct 2022

Avg Daily Mins	Coins Earned	Correct Answers
4m 29s	**1,587**	**405**
last 7 days	last 7 days	last 7 days

Minutes played in October 2022

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				1	6m 57s (1)	8m 24s (2)
3 7m 27s	4	5	6	7	8	9
10	11	12	13	14	15	16

	10	2	5	3	4	8	6	7	9	11	12
10	10 × 10	10 × 2	10 × 5	10 × 3	10 × 4	10 × 8	10 × 6	10 × 7	10 × 9	10 × 11	10 × 12
2	2 × 10	2 × 2	2 × 5	2 × 3	2 × 4	2 × 8	2 × 6	2 × 7	2 × 9	2 × 11	2 × 12
5	5 × 10	5 × 2	5 × 5	5 × 3	5 × 4	5 × 8	5 × 6	5 × 7	5 × 9	5 × 11	5 × 12
3	3 × 10	3 × 2	3 × 5	3 × 3	3 × 4	3 × 8	3 × 6	3 × 7	3 × 9	3 × 11	3 × 12
4	4 × 10	4 × 2	4 × 5	4 × 3	4 × 4	4 × 8	4 × 6	4 × 7	4 × 9	4 × 11	4 × 12
8	8 × 10	8 × 2	8 × 5	8 × 3	8 × 4	8 × 8	8 × 6	8 × 7	8 × 9	8 × 11	8 × 12
6	6 × 10	6 × 2	6 × 5	6 × 3	6 × 4	6 × 8	6 × 6	6 × 7	6 × 9	6 × 11	6 × 12
7	7 × 10	7 × 2	7 × 5	7 × 3	7 × 4	7 × 8	7 × 6	7 × 7	7 × 9	7 × 11	7 × 12
9	9 × 10	9 × 2	9 × 5	9 × 3	9 × 4	9 × 8	9 × 6	9 × 7	9 × 9	9 × 11	9 × 12
11	11 × 10	11 × 2	11 × 5	11 × 3	11 × 4	11 × 8	11 × 6	11 × 7	11 × 9	11 × 11	11 × 12
12	12 × 10	12 × 2	12 × 5	12 × 3	12 × 4	12 × 8	12 × 6	12 × 7	12 × 9	12 × 11	12 × 12

		Effort				⌄
		Fluency				⌄
		Studio				⌄
		Gigs				⌃

SCORE HISTORY

Gig	Date	Table to practise	
Gig 1 (Baseline)	20 Sep 2022	× 5	Breakdown
Gig 2	1 Oct 2022	× 4	Breakdown

Gig 2 - Result Breakdown

	Table	Score ⓘ	Avg. Speed ⓘ	
Passed	× 10	10 / 10	1.7 s / q	⌄
Passed	× 2	10 / 10	1.8 s / q	⌄
Passed	× 5	10 / 10	2.7 s / q	⌄
Passed	× 3	10 / 10	4.6 s / q	⌄
Failed	× 4	6 / 10	6.9 s / q	⌄
Failed	× 8	4 / 10	3.0 s / q	⌄
Failed	× 6	5 / 10	4.0 s / q	⌄
Failed	× 7	4 / 10	3.3 s / q	⌄
Failed	× 9	1 / 10	1.4 s / q	⌄
Failed	× 11	0 / 5	-	
Failed	× 12	0 / 5	-	

× 4   Suggested table for Evan to practise.

You can explore which times tables your child is finding tricky or is taking more thinking time for them to answer. These can be targeted in your own screen free games.

# Dice Games

Multiples of 4 Game

You will need:
- A game board
- 2 dice
- 2 sets of coloured counters (one set per player)

The aim of the game is to be the player with the most coloured counters on the board when the timer runs out. **Play for 10 minutes.**

How to play:

1. Player 1 rolls both of the dice. They add the numbers on the dice together and then multiply that number by 4.

2. Player 1 then finds a square on the grid containing this product and covers it using one of their coloured counters.

3. Player 2 takes their turn by following steps 1 and 2.

4. Players take turns until the timer runs out.

5. If there are no more squares left containing their product, play passes to the other player.

6. When the timer runs out, count up who has the most coloured counters on the game board. This player is the winner.
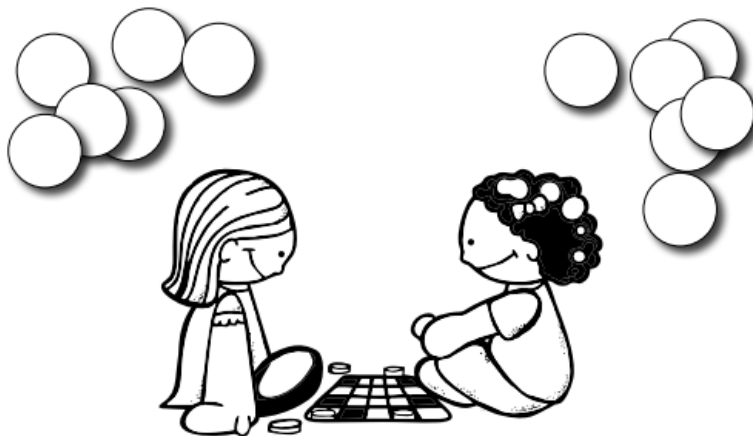
Multiples of 4 Game

20	16	24	32	28	40
32	28	44	36	20	24
12	24	40	28	16	32
36	48	20	24	36	12
28	16	32	8	28	44
40	24	28	20	36	32

I spy times tables

Number plate game

I can see...

10

I can see...

52

Can you work out what calculations have been done to reach each answer?
Is there more than one way?

EA64 BDZ

I can see...

20

I can see...

25

Number plate game

I can see...

I can see...

Challenge!
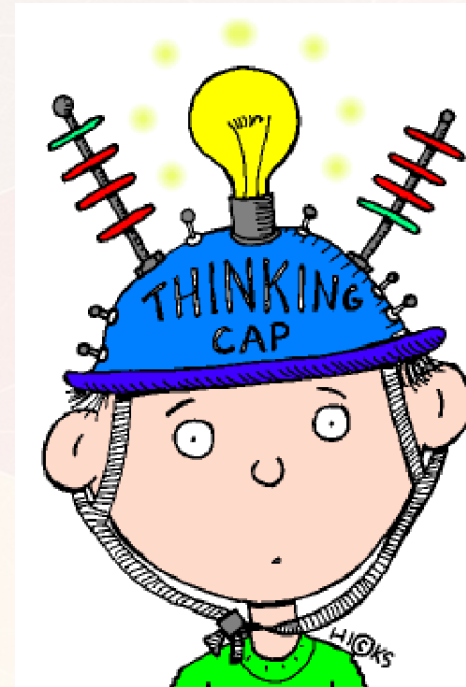Create your own number plate problems for a friend to solve.

I can see...

I can see...

What do reasoners do?

- Think before doing

- Notice things

- Make decisions based on what they notice, know and understand
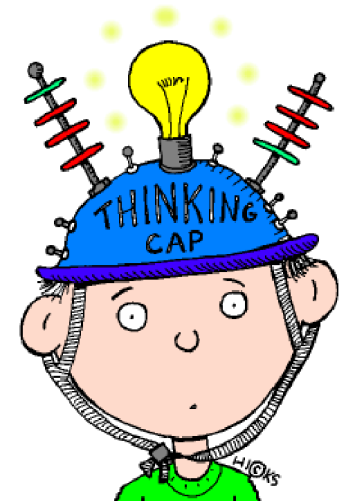
What do you notice?

You have been food shopping at the supermarket and noticed some deals.

£1.09

£1.12

£1.00

Calculate how much it would cost to buy:

5 pints of milk

3 loaves of bread and 5 bars of chocolate

I can see that each item is £1 or over.

Mental strategy

I know 5 times £1 equals £5.

I can use my 5 times tables to work out 5 times 9p equals 45p. So the total cost of 5 pints of milk is £5.45.

Written strategy

```
   1 . 0  9
×        5
─────────────
   5 . 4  5
       4
```

5 pints of milk =

£5.45

You have been food shopping at the ~~market~~ and noticed some deals.

£1.09

£1.12

First of all, I need to calculate the price of 5 pints of milk.

Calculate how much it would cost to buy:

5 pints of milk

3 loaves of bread and 5 bars of chocolate

The next thing I need to do is calculate the cost of 3 loaves of bread and 5 bars of chocolate.

...d shopping at the supermarket and

Mental strategy

I know 3 times £1 equals £3.

I can use my 3 times tables to work out 3 times 12p equals 36p. So the total cost of 3 pints of milk is £3.36.
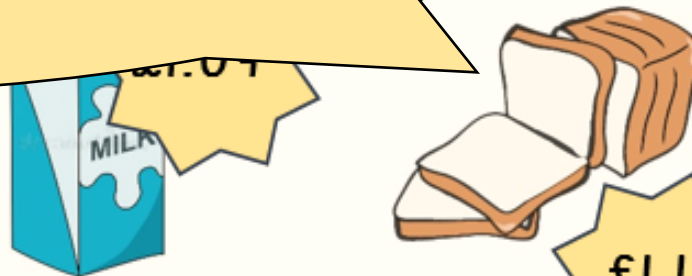
£1.00

£1.12

Calculate how much it would cost to buy:

Bars of chocolate

1.0 0
X   5
_____
5.0 0

3 loaves of bread and 5 bars of chocolate

1.1 2
X   3
_____
3.3 6

I now need to add the 2 together.

```
  3 . 3  6
+ 5 . 0  0
  8 . 3  6
```

The total cost is £8.36

...d shopping at the supermarket and

£1.09

£1.00

£1.12

Calculate how much it would cost to buy:

5 pints of milk

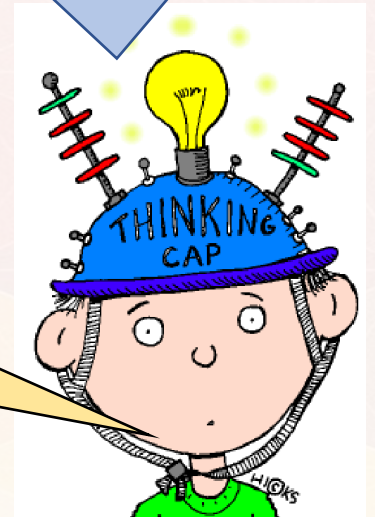3 loaves of bread and 5 bars of chocolate

Mr Fisher's age is a multiple of 8 and 12

His age is one away from a multiple of 7

He is younger than 50 years old.

How old is Mr Fisher?

Which times tables will help you?

What are your first steps?

Use the reasoning mats to help you discuss and solve this problem
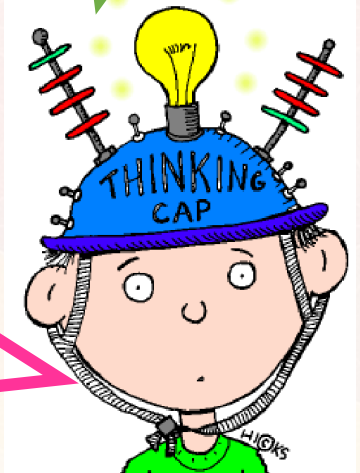
THINKING CAP

Mr Fisher's age is a multiple of 8 and 12

His age is one away from a multiple of 7

He is younger than 50 years old.

How old is Mr Fisher?

8, 16, **24**, 32, 40, **48**,

12, **24**, 36, **48**,

The strategy I used was to list the multiples of 8 and 12 first. I choose this strategy because it would help me find common multiples that are in both times tables

I already knew he age was less than 50 so this helped me work out that I only needed to go up to 6 x 8 which is 48 and 4 x 12 which is 48

Mr Fisher's age is a multiple of 8 and 12

His age is one away from a multiple of 7

He is younger than 50 years old.

How old is Mr Fisher?

I wondered what would happen if I then listed the multiples of 7 to find a number that was one away from either 24 or 48.

8, 16, **24**, 32, 40, **48**,

12, **24**, 36, **48**,

7, 14, 21, 28, 35, 42, **49**

The answer must be 48. I know this because 7 x 7 is 49 which is one more than 48 and still less than 50.

THINKING CAP

Useful Websites

https://www.bbc.co.uk/sport/supermovers/42612499

https://www.topmarks.co.uk/maths-games/hit-the-button

https://nrich.maths.org/primary

https://ttrockstars.com/

https://www.mymaths.co.uk/

Please refer to the support for learning pages in the back of the home link books.