

Covid-19 Update 28th May 2020

This week is the last of the weekly updates. I will continue post updates on my website but they won't be weekly. If you want a heads up when new materials have been added, follow me on Twitter @liz__gibbs

New page coming soon

Once allowed in the UK, I'm going to do a daily lesson with my eldest granddaughter. She turned 8 in early May and isn't a confident mathematician, preferring reading and writing. She has been quite a bookworm over the last ten weeks. The newsletter link from the top menu of my website will be moved and you will see a Nicola's maths page in it's place. Do feel free to follow our maths journey. I will be publishing the resources and ideas I've used with Nicola and my brief daily lesson plans.

Problem solving books

If you have enjoyed my writing style, you may be interested to know that I have started to write a couple of short maths books on problem solving and place value. These will be available via Amazon over the summer break.

When we are back to a "new normal"

Once we are all back up and running please do get in touch if you want any school based CPD or school improvement work. For overseas schools, I travel anywhere in the world to support schools. Andrew and I are planning to head back to Asia for our mathematics tour in February and March again next year, so please check out my courses and overseas page from August onwards. We are looking for some new host schools and in particular Dubai. Get in touch if you can host a course.

The final update

So here we have the final update. Don't forget every Covid-19 page is backed up on the home learning page until the end of December 2020 and all the files have a permanent home for the moment on my problem solving and reasoning page and the dice, dominoes and digit cards page.

Don't roll a 5 or 2

A mental maths activity for 2 or more players.

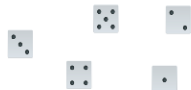
If you roll a 5 or 2, you cannot roll the dice again.

The player with the highest score after 5 rounds is the winner.

Don't roll a 5 or 2

You will need...

- five 1 → 6 spot dice
- pencil and paper



Players take turns to roll five dice.
If a 5 or 2 is rolled then it cannot be rolled again, nor the spots be counted towards the score.
The player adds up the remaining dice and this becomes a running total.
The remaining dice are repeatedly rolled until all the dice show a 5 or 2.
The running total is the final score for that player.
The second player then rolls the five dice.
The winner is the player with the highest score after 5 rounds.

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Factor dice game

Aimed at upper KS 2

A game for 2 or more players.

Players roll three dice and add the spots. The total becomes a multiple and the next task is to list and add up all the factors of that multiple.

Multiples of 9

Similar to last weeks multiples of 6, using the cards only once, make five two-digit multiples of 9

Can you make 12?

An activity for young children.

Pick up two dominoes and turn them over, if the total is 12, you can keep the dominoes, if not, they are returned to the pile. Change the target number and number of dominoes for older children.

Number of spots

Ideal for EYFS and KS 1. It asks the children to turn over a domino and say straight away what the total is. This is called conceptual subitizing, when you know by the arrangement of spots what a number is rather than mechanically counting. A good development assessment activity.


Two digit numbers

Look at the statements on the card and build five two-digit numbers that satisfy these statements.

Factor dice game

A game for two or more players.
You will need...

- three 1 → 6 spot dice
- a pencil and paper to record your score




Players take turns to roll all three dice.
Once the dice have been rolled, the three numbers are added together.
The player then writes down all the factors of their dice total.
Once all the factors have been found, they are added together. The sum of all the factors becomes the players score for that round.
The winner is the first player to reach a score of 100.

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Multiples of 9

Here are ten digit cards showing the numerals 0 → 9

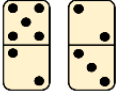


You can use the cards only once.
Can you make five two-digit numbers that are multiples of 9?

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Can you make 12?

This is an activity for EYFS and Year 1 children
You will need a full set of 1 → 6 spot dominoes.

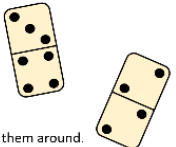


An activity for 2 children.
Place the dominoes face down on the table and shuffle them around.
The children take turns to turn over two dominoes. If the total number of spots is 12, the child can keep the dominoes. If the dominoes have a sum more or fewer than 12 spots, the dominoes are returned face down on the table.
The first person to get 5 sets of 12 spots wins.

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Number of spots

This is an activity for EYFS and Year 1 children
You will need a full set of 1 → 6 spot dominoes.




An activity for 2 children.
Place the dominoes face down on the table and shuffle them around.
The children take turns to turn over a single domino. If they can say how many spots without counting, they can keep the domino. If they can't they must return it to the table and place it face down.
The winner is the first player to collect 5 dominoes.

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Two-digit numbers

Here are some digit cards.



You can only use the cards once. Can you make these five two-digit numbers using the digit cards?

- A multiple of 10
- The largest possible odd number
- The smallest possible even number
- A multiple of 5
- A number close to 30

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Here is a bumper crop of problem solving

Fruit

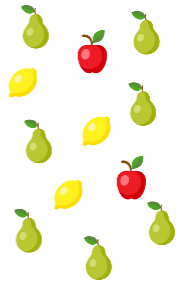
A problem aimed at upper KS 2.

Best solved with a bar model.

Fruit

7 pears and 1 lemon cost 57p.
3 lemons, 1 pear and 2 apples cost 41p.
1 pear, 2 apples and 2 lemons cost 33p.
How much does each piece of fruit cost?

First read the question and re-read.
Make a note of the amounts and costs.



Writing numbers down

This seems a simple problem, there are massive opportunities for reasoning here without counting individual digits.

Writing down numbers


Kim was writing down some numbers onto a piece of paper. She started to write numbers down starting at 1 and ending at 20.

1, 2, 3, 4, 5, 6 and 7.

She carried on writing down the numbers in order. She paused after she had written the 19th digit.

What was the last number she wrote down? She started to write her numbers again and stopped at number 20.

How many digits did Kim write down? Find a way to work this out without writing the counting numbers yourself? Explain your thinking to a friend.



Make 11


Aimed at KS 1 and lower KS 2. A quick problem based around odd numbers and finding all the possible groups of cards which will total 11.

Make 11

Using only odd numbers, how many addition questions can you write that have a sum of 11?

Each addition question must have three odd numbers.

Watch out for repeats.



£10 note


The £10 note has been changed into £1 and £2 coins. How many different combinations can you find?

£10 note

Shamim had a £10 note. He needed some coins, so he went to the bank, where they changed the note for some £1 and £2 coins.

How many coins did Shamim have?
How many £1 and £2 coins were there?

Find three different answers.



Lollies

A division and remainder problem aimed at KS 2 children. Use concrete resources to solve this problem.


The file shows how you can solve this problem by organising the information in a table.

Lollies

Henry and Najla were given a bag of lollies.
They shared them out equally and had one left over.

Just as they had finished sharing the lollies out, three friends came to visit.
They wanted some lollies too, so the children shared them out again
between all of them. This time they had two lollies left over.

How many lollies could there have been in the bag?




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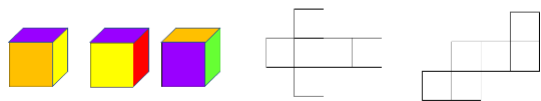
Coloured cube

A visual and diagram problem aimed at KS 2 children. Another version of this can be found on the NRCIH site.

Coloured cube

Here are the six faces of a cube - in no particular order:
Each face is a different colour: 

Can you work out where the faces are in relation to each other and record them on the nets of the cubes below?



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Stickers

A KS 1 time and number problem.
This has been solved by using a table.

Stickers

Evie loves these owl stickers.
She was given a sticker on Wednesday.
On Thursday, she was given two stickers.
Every day, she was given two more stickers.

On which day was she given the 11th sticker?



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Change

Aimed at lower KS 2 and some upper KS 2 children,
this problem looks at making a value between £ and
£4 using only 4 coins. What totals can Evie use?
How many different amounts can you make?


Change

Evie has 4 coins.

The sum of the coins is greater than
£3 but less than £4.

What totals can Evie make?

List the amounts you can make.




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Number problem

Choose two numbers and using any of the four
operations as many times as you like show what you
would need to do to make 10 into 23.

Number problem

Starting with 10 can you get to 23, using any numbers you like and
three different operations? How many different ways can you find?



Once you have solved this problem can you make one up of your own?


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Stamps

A perfect problem for Years 3 and 4.

How many 3p and 4p stamps do you need to sent a 19p letter? Can you find at least 2 ways to do this?

Stamps



You can have as many 3p and 4p stamps as you like.
How many 3p and 4p stamps can we use to post a 19p letter?
How many 3p and 4p stamps can we use to post a 29p letter?
Find two ways for each letter.

3p 3p 3p 3p 3p 3p

4p 4p 4p 4p 4p 4p

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Bricks

Suitbale for lower KS 2.


A division and remainder problem

Bricks

Stacey loves to count things. One day her teacher gave her some toy bricks to count.

When she counted the bricks in 2s she had one left over.
When she counted the bricks in 3s she had one left over
When she counted the bricks in 5s, she didn't have any bricks left over.

How many bricks did Stacey have?

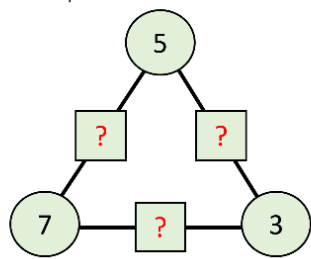


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Multiplication problem

Can you fill in the missing circles and boxes? You'll need to know about multiplication and division to solve these. There are several to solve in this file.

Multiplication problem 1



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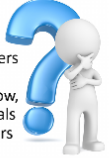
Maths puzzle

A logic puzzle using the letters m, a, t, h and s.

Maths puzzle

This square has eleven letters missing.

Can you solve this maths puzzle by placing the letters m, a, t, h and s into the missing squares. Every row, column and main diagonals must contain all five letters that spell maths.



m	a	t	h	s
	s	m	a	
		h		m
	m	a		
		s	m	

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Three rabbits


A KS 2 logic problem.

An old favourite of mine, regularly used in training and with children. Can you solve it?

Three rabbits

Bill has three rabbits.
Each rabbit is a different weight.
The first and second rabbits weigh 6kg altogether.
The second and third rabbits weigh 9kg altogether.
The third and first rabbits weigh 11kg altogether.

What is the weight of each rabbit?



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Websites & publications (updated 14th May 2020)

Websites

[Classroom secrets](#) Online teaching and learning resource with free home learning packs.

[TTS](#) Free home learning packs

[IXL](#) Home learning with IXL

[TES](#) Home learning essentials

[Yorkshire Water](#) Home learning ideas

[Cambridge learn together](#) Home learning resources

[Mathematics Centre](#) A wealth of mathematics here for teachers and parents.

[Maths Frame](#) The old NNS ITPs plus some new ones free to use.

[Thinking mathematically](#) A blog of mathematical ideas and activities

[Play with your math](#) A lovely page of maths puzzles

[Magic Message](#) Andrew Jeffrey's website

[Illustrative mathematics](#) Non UK site. Has some activities & games via the standards button.

[Study Smart](#) Free online times tables

[We are teachers](#) Ideas for using manipulatives in the classroom

[The Oak National Academy](#) The new government-backed home learning tool

[Spot on with Number](#) Hungarian 10 blocks and ideas

[Maths bot](#) An online tool for teachers and parents. Scroll down for primary manipulatives

[22 fun ways to teach multiplication](#) Online page of ideas for teachers and parents.

[Government page](#) Covid-19 web page containing weblinks to primary and secondary educational websites.

[BBC bitesize](#) complete BBC maths listing

[STEM](#) resource packages for teachers

[Maths Association](#) Primary maths challenge. Download past challenges from [here](#)

[National Numeracy](#) Pdf sheets of mathematical activities for children aged 5 – 11

[ATM \(Association of Teachers of Mathematics\)](#) There are some activities and publications free to download, a majority of this is for older children upper KS 2, KS 3 and GCSE.

[NRICH](#) A problem solving website for all ages

[NRICH](#) specifically for EYFS

[Maths on Toast](#) Teachers page

[Maths on Toast](#) Parents page

[Numicon](#) A New Zealand site with resources and downloads

[Cool Math](#) online maths dictionary

[Maths is Fun](#) online maths dictionary

[A Maths Dictionary for Kids](#) online maths dictionary

[Maths Mastery](#) Primary maths and English resources

[White Rose \(Mastery\)](#) Year group specific free resources.

[Maths with parents](#)

[Maths Life](#) Maths without a worksheet ideas

[Sumdog](#) Free access to maths, spelling and grammar

[No pressure maths](#) Downloads available

[7 Puzzle](#) blog the website linked to the above Twitter account

[Rising Stars](#) book company. Some free activities online

[Primary Games Arena](#) Online maths games

[Parallel](#) A site for 10 to 15 year olds

[Yohaku](#) Yohaku puzzles are short number puzzles available via Twitter @yohakupuzzle

[Oxford Owl at home](#) Publishers of reading and maths schemes

[Pearson](#) Publishing house of educational materials

[First for maths](#)

[Collins](#) Collins have opened a webpage of ideas from their old Belair publications.

[Propeller](#) A (Suffolk) local publishers, who publish fantastic resources.

[Zeno maths](#) An American home schooling website with some useful downloads and ideas.

[Messy maths](#) Lots of ideas and inspiration for teaching young children.

[10 Family Card Games That Support Early Math Skills](#) Card games are an inexpensive way to enjoy family fun while also building math skills—all you need is a deck of playing cards!

[Math at Your Fingertips!](#) Easy Counting Activities Using Number Gestures

[Origami and Paper Wizards](#): Fold Some Math into Your Day! These activities can be done with whatever paper is available—scrap paper, newspapers, or magazine pages would work.

[Easy Recipes That Will Get Your Family Talking About Math](#) Four recipes that children can help make along with tips for talking about math while cooking together.

[Math Talk: Measurement at Home](#) Everyday ways to talk about units and measurement, you can help support children's developing mathematical understanding.