

School closure March 2020 – Covid-19

First and foremost, mathematics should be fun and not just a worksheet or PC screen.

Maths is best when it is real, such as...

- baking (measures: metric units of measure)
- counting on and back (number: counting on and back from any number, KS 2 try decimals)
- counting anything! for example the number of
 - bounces on a trampoline
 - star jumps
 - steps up or down stairs (older children can count in multiples)
 - buttons on a cardigan
 - fruits in a fruit bowl
 - pips in an apple
 - coins in a purse (you might want to clean the coins first)
 - counting up or back in 2p coins
 - counting up or back in 5p coins
 - counting up or back in 10p coins
 - books on a shelf
 - toys in a box
- reading maths related stories (see www.mathsthroughstory.org) my off the top of my head favourites are...
 - A remainder of one (division story using an army of ants)
 - One is a snail, ten is a crab (a counting story)
 - My cat likes to hide in boxes (get your child to make a box for a toy)
 - Multiplying Menace multiplying by whole numbers and fractions (aimed at Year 6)
 - The Doorbell rang (sharing cookies)
 - Jasper's Beanstalk (passage of time – days of the week)
- a fun time playing with water in the bath with pots and measuring jugs, (measures: volume)
 - practice pouring liquid accurately from one container to the other
 - save old washed out cartons and bottles to play with, add plastic scoops and spoons.
 - put the bottles in order from the ones that hold the least to the ones that hold the most
 - talk about what half and a quarter-full looks like
- shopping, (measures: money, coins, value, change)
 - set up a pretend shop at home
 - write shopping lists and add amounts
 - look at old till receipts
 - for older children go online and find something that is sold in different quantities, e.g. cola. 4 x 2 litre bottles, 2 x litre bottles, 1 litre bottle, 500ml, 330ml can etc. Compare by finding the best value per 100ml
- ordering events or a story (ordering)
- making a timeline of your child's life using old photographs (time: days, months and years)
- plotting a family tree (time: months and years)
- telling the time (measures: time) use an analogue clock (one with an hour and a minute hand on it)

- start with o'clocks, once your child can tell the time using o'clock, ask them to come and tell you when your home clock shows 5 o'clock when a particular TV show is about to be shown on the TV or an arranged time to Skype a grandparent.
- then half past, note that the hour hand is half-way between the last hour and the upcoming hour
- quarter past and quarter to
- move onto counting in units of 5 minutes and telling the time in five minute intervals
- setting a TV remote planner (measures: time)
- solving a puzzle (www.nrich.maths.org) or any of my puzzles from my reasoning page, find the drop down menu "More" at the top of this page.
- playing a game (number)
- constructing paper or cardboard models (measures)
- looking for and making collections of different 2D and 3D shapes at home (geometry)
- counting items, such as knives and forks onto a table (EYFS problem solving and counting)
- sorting household items, putting the teaspoons into the correct tray in the cutlery drawer (EYFS sorting)

and so on. My list could go on!

For teachers, teaching assistants, parents and carers, here are some useful maths links for working at home. I will add to this over the next few weeks, so do pop by again.

Practical work with your children: Problem solving

When this page is updated, these thumbnails and download links will be moved to my reasoning and problem solving page. They will also be available via my quick links on this page..

Ten frames

Please go to my Resource and ideas page to download a zipped file of ten frame images and activities. If you don't own a printer, do not worry, just draw the frame onto a piece of paper, it's as simple as that! Counters, stones or buttons can be the counters on the frame.

Click on the images below to download a pdf copy of the problem, how to solve ideas and solution.

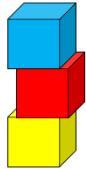
For this activity you will need some coloured cubes from a toy box, a piece of paper and some coloured crayons (the same colour as the cubes) to record your answers.

Stacking coloured cubes

Nicola has three cubes.

She builds a tower with the cubes.

- What coloured cube is at the top of the tower?
- What coloured cube is at the bottom of the tower?



Choose three different coloured cubes.

How many different tower arrangements can you make with three different coloured cubes? Think carefully about how you are going to record your work.

How many different ways can you find when using four different coloured cubes?

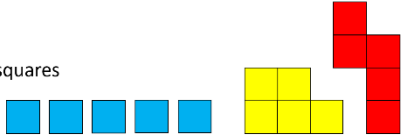
© www.thebusylizzie.co.uk 2019

For this activity you will need a pencil, some paper and some square tiles or pieces of paper. If you have some, wrapped sweets such as Chewits or Starburst. You can tape the sweets together to make the shapes and the children eat their mathematics, when they have solved the problem. These new shapes are called pentominoes.

Five squares

You will need:

- some plastic or foam squares
- some squared paper



How many different arrangements of 5 squares can you find?

Remember...

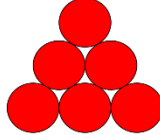
- to watch out for repeats and
- the sides of your squares must touch

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You will need some counters (or flat stones, wrapped round biscuits, cheese board crackers, round sweets that don't roll such as Polo mints, M&Ms or Smarties)

Six counters

Here are six counters in a triangle arrangement.



Can you make the arrangement look like this by only moving two counters?




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
For this activity you will need some counters or six pieces of paper with numbers written on them a pencil and some paper to record your answers.

Difference is a difficult concept for young children. It isn't the aesthetic difference, such as taller, shorter, brown hair or red hair, it's the numerical difference or difference in quantity. For example, the difference between 3 and 5 is 2. 5 is two more than 3.

Find the difference



Can you arrange the numbers 1 to 6 in the circles so that each number is the difference between the two numbers just below it?



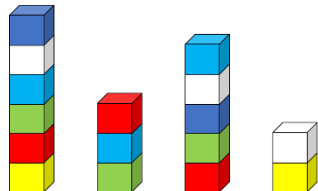
The difference between 2 and 5 is 3

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For this activity you need some building blocks that will stack or you could stack household items such as mini cereal packets or bars of soap. Just anything that will stack safely.

Towers of coloured cubes

Evie is playing with some coloured toy bricks. She likes to keep them neat and tidy. She can move one or more bricks at a time. In only two moves, how can Evie make the piles the same height?



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Useful files on the Busy Lizzie website:

My quick links

- Multiplication times tables square using milk bottle tops click here (https://8a4bf608-7cb0-4e0e-b9bb-156c537419ed.filesusr.com/ugd/a3ae4f_3e65b894ad3e4cfbbf0d2f0ff0d815d0.pdf)
- Multiplication times tables triangles activity (you will need a printer) click here (<https://www.thebusylizzie.co.uk/multiplication>)
- Suko, Sujiko, calculation puzzles, multiplication grids, multiplication puzzles and number challenges click here (<https://www.thebusylizzie.co.uk/problem-solving-reasoning>)
- Calculators download click here (https://8a4bf608-7cb0-4e0e-b9bb-156c537419ed.filesusr.com/ugd/a3ae4f_af226e62d8a94fdb327d281d0439f85.pdf)
- Shape and space problems click here (https://8a4bf608-7cb0-4e0e-b9bb-156c537419ed.filesusr.com/ugd/a3ae4f_334416e5d339462f8983ab45fdabda23.pdf)
- Reasoning about number click here (https://8a4bf608-7cb0-4e0e-b9bb-156c537419ed.filesusr.com/ugd/a3ae4f_ac006ba2630f405ab04a2105b66f4fe0.pdf)
- Mathematical challenges for Year 1 to Year 6 click here (https://8a4bf608-7cb0-4e0e-b9bb-156c537419ed.filesusr.com/ugd/a3ae4f_c3503e5559d5468691ae0916edad6f8a.pdf)
- Dominoes and place value charts click here (<https://www.thebusylizzie.co.uk/ideas-resource-downloads>)

Websites

Mathematics dictionaries

Avoid using scary adult dictionaries, either order a child friendly one from Amazon such as

Suitable for KS 1 and lower KS 2

- First Illustrated Maths dictionary: Usborne
- Oxford First Illustrated Dictionary: Oxford

Suitable for KS 2

- Junior Illustrated Maths Dictionary: Usborne
- Oxford Primary Illustrated Maths Dictionary: Oxford

Suitable for KS 3 and above

- Oxford Students Mathematics Dictionary: Oxford
- Maths Dictionary Age 11 – 14: Letts

or go online and use one of these websites.

- Cool Math <https://www.coolmath.com/reference/online-math-dictionary>
- Maths is Fun <https://www.mathsisfun.com/definitions/>
- A Maths Dictionary for Kids <http://www.amathsdictionaryforkids.com/>

National Numeracy

Pdf sheets of mathematical activities for children aged 5 – 11

www.nationalnumeracy.org.uk/news/free-family-maths-activities-children-aged-4-11-0

Yohaku

Yohaku puzzles are short number puzzles available via Twitter @yohakupuzzle and his website www.yohaku.ca or for a modest amount of money, junior books are available on Amazon price £3.99 – £4.50.

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.

www.atm.org.uk/Free-ATM-Resources-?fbclid=IwAR1x7ETv5ufrTT_N_nTbw03PbDU4uhF7AK2Te7gh2XGu22eQVYjvw4B5Q

Maths Mastery

Primary maths and English resources www.mathematicsmastery.org/free-resources?fbclid=IwAR2jqv1P1xrSBoy3AK7ONaC0yDFBYUIXcOb0lbt-oHYSTg87PIVvjSftJHQ

White Rose (Mastery)

Year group specific free resources can be found here

<https://whiterosemaths.com/homelearning/?fbclid=IwAR2aylvtGHCXkD4ou31ETJjr04Yh9QF5H5nwwlUNL-okonDN5itkWXtzFM>

Maths with parents

www.mathswithparents.com/KWeb?fbclid=IwAR1y-3zbqAQqTL1efKpnvazbnQlkX4aeXvPoSjd66mkXFvPvyCA6tOyqPvQ&startTime=1584629153383

Maths Life

Maths without a worksheet ideas <https://maths.life/?fbclid=IwAR2nzsrsrPE-j6Guy2ViDebswmPuSTxdyFCeaN2qbdflsvxgfrTVBZn3hVHU>

Sumdog

Free access to maths, spelling and grammar

<https://pages.sumdog.com/home-learning-during-school-closures/>

No pressure maths

Download and print games.

www.nopressuremaths.com/?fbclid=IwAR1-qtpvKSEs2BdpO9nYcmX2S3JnroUnallkeLsQQJiDFNBIFevc1GA1zIM

Oxford Owl at home

www.oxfordowl.co.uk/for-home/

Pearson

www.pearson.com/uk/educators/schools/update-for-schools.html?utm_source=twitter&utm_medium=referral&utm_campaign=GBEDGN0320COVID

First for maths

www.first4maths.co.uk/shop/

Collins

Collins have opened a webpage of ideas from their old Belair publications. Well worth a look.

<https://collins.co.uk/pages/primary-art-classroom-display-belair-creative-free-resources>

Propeller

A (Suffolk) local publishers, who publish a fantastic resource called the rapid recall board. At the moment they have opened up sales to parents and carers, so you can buy the boards in single units. These boards are fantastic, you decide the number you are going to use in the coloured square or shape. That number then appears in the same coloured shape across the board and in effect sets you child a series of questions around that number, measures and shape. Every day will be different. Use a whiteboard pen, so that the answers can be wiped away at the end of the day. Your child can try to beat their own time or get further down the board. You might want them to concentrate on a particular aspect of maths, so encourage them to fill in only part of the board. You decide. I do not take any payment from anyone regarding maths products, I only promote the resources I like and use myself. After talking with the company this week, if you mention my name you may be able to get some sort of additional discount on the online price. Here is some information and links from the publisher.

We are pleased to say that we have now made the Rapid Recall Boards more readily available to parents and home tutors who may need them, along with some free download bundles.

[Check out our NEW Home Schooling Kits here!](#)

[You can access your free bundles via our website here.](#)

Publishers

Usborne

Usborne books have produced a variety of books over the years here are some I own and use on a regular basis.

- Maths activity pad (A3 sized sheets of activities)
- Times tables activity pad (A3 sized sheets of activities)
- 99 maths puzzles (book)
- 100 logic puzzles (book)
- Over 50 secret codes (book)

Buster Books

- Maths games for clever kids (book)
- Brain games for clever kids (book)
- Brain training puzzles for clever kids (book)
- Times table games for clever kids (book)

Tarquin publications

At the moment Tarquin publications are offering a discount to parents on their primary and secondary publications. Don't forget to add the special code before purchasing.

Special offers till 31.7.2020 Primary ages - 50% off with code P-HOMEOFFER. Other users 50% offer with M-HOMEOFFER

www.tarquingroup.com/

Pocket book of primary school mathematics

Being self-employed my income went to zero overnight at the start of the year. Along with so many other outgoings, I still have website and web design/uploading costs. Online content here is free and will remain so. If you are able to support me by purchasing just one of my pocket books, I would be extremely grateful. I hope to have the first pocket book ready by the end of next week. I would also welcome any comments about this webpage and my website. If you have any requests you would like me to include on these pages, do get in touch via my contact page.

For maths professionals (Advisers, consultants, publishers and teachers) if you use any of my content please credit the source: Liz Gibbs www.thebusylicizzie.co.uk thank you.

If you've arrived at the bottom of this page and it's all too much in the current climate, here is a weblink unrelated to teaching and learning, it's the BBC's mindful sounds. Enjoy.

[https://www.bbc.co.uk/programmes/articles/1jsL24WP33hWM25vDmcgLLT/11-mixes-to-ease-your-mind-and-calm-your-soul?xtor=CS8-1000-\[Discovery_Cards\]-\[Multi_Site\]-\[SL02\]-\[PS_SOUNDS~C~~A_Musicmixestosoathsoul\]](https://www.bbc.co.uk/programmes/articles/1jsL24WP33hWM25vDmcgLLT/11-mixes-to-ease-your-mind-and-calm-your-soul?xtor=CS8-1000-[Discovery_Cards]-[Multi_Site]-[SL02]-[PS_SOUNDS~C~~A_Musicmixestosoathsoul])

My next update will be due on or just after 3rd April 2020

So that this page does not become overloaded, I intend to move most of this content to a new parent and carers page which can be accessed via the drop-down menu “More”. This will free up the Covid-19 page for totally new content.