



We hope you are all keeping safe and well. These may be of help to you, particularly if you are trying to manage several children's needs or have limited access to the Internet. *Page 1: activities – no IT needed Page 2: web links - if you have internet access and some extension.*

*The most important thing is that you are calm for your children and should only do whatever you can manage. Remember that children also learn a lot through play such as Lego and playing games and even through chores such as helping to prepare a meal. Great learning can happen when it's not always adult directed.*

## Wellbeing and Building Resilience

For resources to support this please click this link to our Padlet: <https://padlet.com/HLTWellbeing/jukwcst2scmfbd7t> or use this QR code:



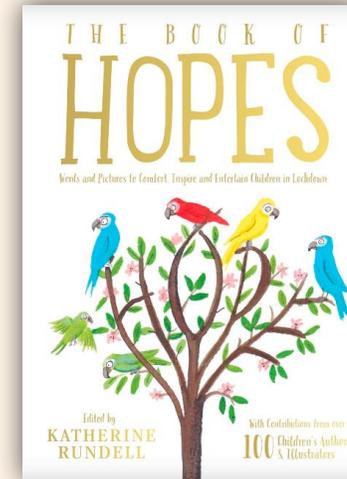
### Being Kind

#### Being Kind to Yourself – Being hopeful

So much has happened to all of us in such a short space of time. Whilst we need to remember and learn from the past we also need to look towards the future and what the future might have in store for us all. Believing that things can get better is called being hopeful. We all hope for something. Sometimes being hopeful can be described as looking at 'the bright side' of something and seeing a challenge as a valuable learning opportunity. Something good can still come out of a difficult situation.

Here are some ways of how you could be hopeful:

- Write down your hopes and dreams for the future. These can be small (short term) or big (long term) hopes!
- Who can help you reach your dreams? Reflecting on and writing them down can make you feel happy and excited!
- What do you hope to be when you grow up? (job wise) What do you think you need to do to get there? Ask an adult.
- Genuine generosity is linked to hope. Should we give to someone else without expecting anything in return?
- Discuss with an adult.
- If you are met with a challenge, say to yourself 'I can do this!' This is called personal motivation.



Read **The Book of Hopes** by Katherine Ruddell: a free children's book by over 110 authors and illustrators [here](#)

#### The great dilemma, questions to think and talk about (Philosophy for children: P4C)

Patterns of behaviour are called habits, things we do regularly that are hard to give up or stop. **Can a habit be good or bad? If someone has a habit that you don't like, does that mean it is a bad habit?**

**Is craft an art?:** Quilting is an ancient tradition that has been done for 100s of years. Small pieces of material often left over from something else or from old scraps would be joined to make 1 large piece. It was often a communal activity that would be done by large groups and often for a purpose e.g. to make a bed covering before someone got married or a cover for a new baby. **Do you think a craft, making something for a use e.g. to cover a bed be considered as art? If lots of people worked on it but it is for one person, who does the piece belong to?**

**Escher Tessellations**

M.C. Escher was a graphic artist born in 1898 whose art was mathematically inspired.



Escher created 2-colour tiles with *counterchange symmetry* by splitting tiles within a tile with 4-fold (90°) rotation *symmetry*. Can you see that the black lizard is identical to the white lizard- just rotated?



Create your own Escher inspired tessellation by drawing a pattern on a square tile and then cutting the piece off. Take the cut off piece and stick it onto the opposite side of the tile. Click the link below to see how:

[https://www.youtube.com/watch?v=Ca5J\\_moe7U](https://www.youtube.com/watch?v=Ca5J_moe7U)

**Create your own pattern**

What comes next in the pattern?



What about this next sequence?- think carefully about what the next 3 shapes will be.



Can you make up your own pattern for an adult to continue? Think of up to 4 different shapes. Draw them in a particular order and repeat the order.

Triangle, square, circle, triangle, square, circle etc. This is an ABC pattern as the shapes follow the order ABCABC. If you gave this pattern to an adult, they would easily be able to follow it. Make it more difficult by adding two repeated with the order e.g.

ABCABC, ADAD, ABCABC, ADAD

**How many squares?**

**Investigation**

A 2x2 square has 5 squares within it – the outside square + the 4 inside squares.



A 3x3 square has 14 squares within it. It has 9 small 1x1 squares, the outside 3x3 square and 4 overlapping 2x2 squares shown in red, blue, green and yellow.



2x2 = 5 squares  
3x3 = 14 squares

How many squares are within a 5x5 and 6x6 square. Can you spot any patterns between the type of square n x n square and the amount of squares within that square s?

Can you think of a formula between n and s?

\* see page 3 - the website link

**Topic 13: Let's Create: Patterns!**

**Hackney** #hackneyhomelearning @hackneysuccess

This week's topic is all about patterns. Patterns are designs where **lines, shapes, forms or colours are repeated**. The part that is repeated is called a motif. Patterns can be regular or irregular and have been used throughout history. Some examples are spirals, stripes, waves, tessellations (shapes fitting together) and symmetry.

**This week's challenge:** 1: **Spot as many patterns as you can** in your local area, nature and at home – look at buildings, material, flowers etc.

2: **Explore making different patterns** through drawing, painting, printing, weaving, knitting – even outside in a garden or green space (Wash your hands thoroughly afterwards.)

3. **Research some of the artists and designers from past and present such as Andy Goldsworthy** - their lives, how they created their art and any struggles they had with their designs while they worked. Research different patterns used by your family or by others from around the world and their significance.



**Literacy**

**Patterns and Rhyme!**

Did you know that when poems rhyme, they follow a pattern! The rhyme at the end of each line might rhyme. A code is given to the rhyme:

A,A,B,B

This means the first 2 lines rhyme (A,A) and then the next 2 lines rhyme (B,B) E.g.:

It sounds like this, (A)  
When a snake goes HISS! (A)  
It sounds like that, (B)  
When a rat goes SPLAT! (B)

A,B,A,B

This poems first line, (A)  
Not the next one you read, (B)  
Is really rather fine, (A)  
And it is the only rhyme you need! (B)

**Now you have a go!**

Thinks of as many rhyming words as you can (use your phonics to help!) and then make a patterned poem.

Decide if it is going to have an A,A,B,B or A,B,A,B

Spike Milligan wrote nonsense poems with made up words like:

**On the Ning, Nang, Nong, Where the cows go Bong!**

So you could always make up some new words!



**The Willow Pattern Story**



You may have seen this pattern before on china plates, cups etc.. It is called 'Willow Pattern'

They were designed in 1790 and believed to be based on an old Chinese legend. The story was: *A rich merchant wanted to marry his daughter, Tso Ling, to another rich merchant, but she had fallen in love with Chang, her father's clerk. They ran away together across the sea to a cottage on the island. Her father followed and was about to have them killed when the gods transformed them into a pair of turtle doves. (these are seen at the top of the plate)*

This story was made into a pattern and painted on plates, cups, saucers, teapots and lots more, and sold all over the UK. It almost a story map on a plate.

**Create your own pattern story plate:**

Think of a famous fairy tale, myth or legend (or make up your own version). Either on a paper plate or on a cutout circle draw the important parts of the story. Don't make your picture or story too complicated so it can be reproduced easily, and people can understand the story!



**Spelling patterns!**

Patterns in words help you remember how to spell them. Have a go at these fun games!

**Spelling train**

You could play this with someone else:

Start with your name or Mum/Dad (or your favourite word); Write down another word starting with the last letter of your word **Mum - M** Continue until you run out of words! How many words in your train? I started with **ANT** Ant, Tea, Add, den, Net, Toe You could make it harder by having to write a longer word each time e.g. a 3,4,5,6,7,8,9 etc. Letter word!

**Word Ladders: invented by Lewis Carol who wrote Alice in Wonderland!**

You need is a piece of paper and someone to play with (but you can do it on your own!). Start with a simple 3 or 4 letter word. Take turns to change only one letter to make a new word.



A word can't be repeated in a game. The game ends when a player can't make another word.

Start with a 3-letter word first: Dog, Cat, hot, bat Then try other words! Line, cold, long etc.

**Animal skin patterns**

Some animals have specific patterns to help them to survive in their environment.

Design a pattern for the following animals which would enable them to survive in its habitats by combating potential dangers and blending into their environment.

- An animal that lives in the coral reef under the sea

- An animal that lives in a swamp with brown murky water and reeds

-An insect that lives on a colourful flower bed



Coral reef

**Skittles experiment**

You will need:

- Bowl
- Skittles
- Warm water

Get a bowl and some skittles and place them in the centre of the bowl. Place them wherever you would like - round the outside of in the centre. Make a pattern with the colours.

Before you pour warm water over the skittles, draw your bowl and the pattern that you think the skittles will make. Now pour your water over the skittles. Were you correct?



Why does this happen?

Skittles are coated in food colouring and sugar. When you pour water over the skittles the coloured coating dissolves spreading through the water. The colour and sugar dissolve into the water and then diffuse through the water, making it the colour of the skittle.

**Fingerprint investigation**

Did you know that we have patterns on our bodies that are unique to us! If you look closely at your fingertips on the palm of your hand you will see swirls of lines. These are your fingerprints; your fingerprints will be different from your family and friends!

**Find out what they look like:**

Either rub a pencil (not colour) onto a piece of paper or sprinkle a small amount of dust (flour, chalk, talcum powder, cocoa powder) on a table. Press your thumb in the dust or on the pencil rubbing. Place your thumb firmly on the sticky side of a piece of sellotape. Now stick your sellotape onto a piece of paper. Keep going until you get a clear print. Look at your prints – what patterns can you see? Compare yours to someone else!



Whorl Pattern Loop Pattern Arch Pattern

**Creative Arts (see web links for music ideas)**

**Print like a pro!**

**William Morris** was a significant artist during a time known as the *Arts and Craft* movement from 1880s. His designs were inspired by nature's flora and fauna. He used wood blocks to print repeated patterns to make wallpaper. Many artists handcrafted their work while some recreated with machinery. Make your own print block:

**Print Making: String Art**

- You will need:
- PVA glue
- Pencil/scissors
- Cardboard (cereal box is fine)
- String or wool
- Paint, plain paper



Draw a pattern onto the card - make it as simple or as detailed as you like. Glue the sting onto the pattern. Follow the lines carefully. You may like to cut shorter lengths of string to fit the pattern.

Let it dry.

Paint over the dry string. Print the image onto paper. Did all the lines and shapes of your pattern come out. Use a different colour paint to print another image in a different colour.

**Create like the artists of the past and present**

1. Wassily Kandinsky 1866-1944
2. Yayoi Kusama 1929-
3. Piet Mondrian 1872-1944
4. William Morris 1834-1896
5. Andy Goldsworthy 1956-
6. Henri Matisse 1869-1954
7. Yinka Shonibare 1962-



These artists have all used a range of different art mediums to create their work. They all have a distinctive style. Do you have a favourite? Some use circles and dots, others straight lines and bold colours. Many take their inspiration from nature? You can spot which ones? Most of the examples show a repeating pattern in the images. Choose a favourite to try to copy. Start small. A 10 by 10cm square is a good idea. Then see if you can repeat the same pattern over your paper. You could use pencil, crayon, paint, fabrics or things you find in nature (ideally on the ground - not picked off the plants).

**African Fabrics**

Ghanaian **Kente** cloths are made of interwoven **cloth** strips of silk and cotton. They all have a great deal of meaning and is a way of communicating. The colours of the **cloth** each hold symbolism: **gold** = status/serenity, **yellow** = fertility, **green** = renewal, **blue** = pure spirit/harmony, **red** = passion, **black** = union with ancestors/spiritual awareness.

Along with the colours, they use designs that also carry meaning.



Along with the colours, they use a design pattern called Adinkra symbols. These symbols all have different, important meanings and often say something about the values of the person wearing them.

Can you create your own cloth? You can weave with paper, fabric or wool. Or you can design using the Adinkra symbols onto paper. Can you tell a story using them? You could also design your own Adinkra symbols too..

**Humanities**



**Pattern Quiz:**

1. **Harriet Powers** was an American quilt maker, born into slavery in Georgia. She used applique to record local events. Is *applique* a) pieces of fabric sewn onto material to form a pattern or b) knitting?



2. Tartan is woollen patterned cloth made up of criss-crossed bands in different colours – would you be most likely to see it being worn in a) Poland or b) Scotland?

3. In the Fibonacci sequence, the next number is the product of the previous number multiplied by 2. What will come next: 1,2,4,8,16.....?

4. Can you name this print, linked to a Scottish town but originally from Persia?

Answers on the next page!



**Weaving**

Weaving cloth using colourful patterns has always been important in **Mayan culture** for families, commemorations and for artistic purposes. Woven tapestries and brocades decorated homes as curtains, drapes and rugs. Mayan communities had their own textile design. Find out about other textile designers such as Annie Elbers.

**Try weaving:**

Take a piece of card and attach wool/string spaced evenly apart like the picture. Take different coloured threads and ask an adult to help you use a darning needle to weave different coloured threads through to make a pattern. Or try weaving a placemat with paper – cut strips 3/4 of the way up and thread coloured paper through over and under.



**Roman mosaics**

The Romans used thousands of tiny coloured stones (tesserae) to make mosaics which depicted daily life and used pattern.

**Make your own mosaic**

1. Take a piece of A4 card or paper. Divide it up into 1cm squares or use squared paper to help.

2. Sketch out your design – try to include a repeated pattern. Choose limited colours.

3. Cut up 1cm squares of coloured paper or use magazines etc. And stick these onto the paper – this may take some time! If you don't have glue, colour the squares instead.

This is similar to pixelated images on a computer.



# Topic 13: Let's Create: Patterns!

These are links to websites – please practise Internet safety with your children whilst accessing these websites. [↪ Hackney](#)

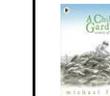
## Useful websites for parents and carers:

In response to the coronavirus lockdown and backed by the Government, The Oak National Academy website, is a new collection of high-quality lessons and online resources. For more information for parents and carers: [click here](#)

2. The National Education Union has published a new website for providing a advice, latest news and resources for parents and carers on the [Coronavirus crisis](#):

**Wellbeing, building resilience and PSHE:**

1. What does it mean to have hope? [Click here](#)
2. Everybody Worries by Jon Burgerman: [click here](#)
3. Talking to children who are worried about coronavirus: [click here](#)
4. The CAMHS Alliance for Hackney has produced a comprehensive list for parents and carers [click here](#)

				
Little Mole Finds Hope: Glensy Nellist	The Yes: Sarah Bee, Satoshi Kitamura	Life Doesn't Frighten Me: Maya Angelou, Jean-Michel Basquiat, Sara Jane Boyers	A Boy Called Hope: Lara Williamson	A Child's Garden: A story of Hope: Michael Foreman

**Films and TV shows:** The Really Wild Show Series 21 Camouflage;

**Websites:** [https://kids.kiddle.co/Patterns\\_in\\_nature](https://kids.kiddle.co/Patterns_in_nature)

## Religious Education



**Mandalas:** These are circular designs with repeating shapes and they often hold spiritual significance e.g. in the Buddhist and Hindu religions. Drawing these can be very therapeutic! Ask an adult to help you with using the compass. <https://www.bing.com/videos/search?q=mandalas+for+kids&&view=detail&mid=C49885A9FE4FC6720D14C49885A9FE4FC6720D14&&FORM=VDRVRV>

**Mehndi patterns from henna** are used in Muslim and Hindu religions to signify the love between a couple. The darker the ink the stronger the love. <https://www.bbc.co.uk/teach/class-clips-video/religious-studies-ks2-my-life-my-religion-hinduism-nikki-hemal-marriage-hindu-wedding-ceremony/zmqrkmm>

**Rangoli patterns** are used by Hindus to welcome people into a home during Divali and can be made from different coloured materials like chalk and rice. <https://nrich.maths.org/5369>

<https://www.bbc.co.uk/teach/class-clips-video/religious-studies-ks2-my-life-my-religion-hinduism-divali-festival-of-light/z668qp3>

Look at other uses of pattern in religious buildings such as in **Islamic art (pictured above)** and in church stained glass windows. <https://www.ncetm.org.uk/resources/18030>

## Literacy

**Octopus, Socktapuss:** Nick Sharatt read aloud [https://www.youtube.com/watch?v=e1\\_MqAH1V44](https://www.youtube.com/watch?v=e1_MqAH1V44)  
[http://www.nicksharratt.com/drawing\\_tips.html](http://www.nicksharratt.com/drawing_tips.html)

Nonsense Poems home learning BBC: <https://www.bbc.co.uk/bitesize/articles/zv3v6g8>

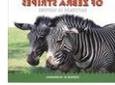
Willow Pattern Story: <https://www.youtube.com/watch?v=Ge1LD8JDFy>

Information, poems and stories about Willow Pattern from the potteries: <http://www.thepotteries.org/patterns/willow.html>

Word Games: [https://www.dltk-kids.com/type/word\\_ladders.htm](https://www.dltk-kids.com/type/word_ladders.htm)

Spelling games: <https://www.bbc.co.uk/bitesize/topics/zt62mnb>

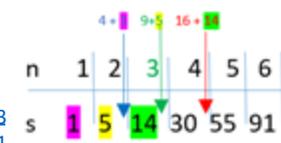
## Books

<b>EYFS N and R</b>	<b>The odd one out:</b> Britta Teckentrup  <b>Animal Patterns:</b> Nathan Olson	<b>Cat in the hat:</b> Dr Seuss 	<b>William Morris ABC:</b> William Morris 123 
<b>KS1 Y1-Y2</b>	<b>The Willow Pattern story:</b> Allan Drummond 	<b>Pattern Bugs &amp; Pattern Fish:</b> Trudy Harris 	<b>Lots and Lots of zebra stripes:</b> Stephen R. Swinburne 
<b>KS2 Y3-Y6</b>	<b>Hidden in plain sight- Animal Camouflage:</b> Elsie Belback 	<b>Somethings Drastic:</b> Poems by Michael Rosen 	<b>Cloud Busting:</b> Malorie Blackman 

## Maths

**Answers to 'How many squares?'** Investigation: Patterns - when you square  $n$  you see that you add the previous  $s$  number to get the  $s$  number  
 The formula is  $s = n(n+1)(2n+1)$

Patterns and sequences KS1: <https://nrich.maths.org/8933>  
 Patterns and sequences KS2: <https://nrich.maths.org/8941>  
 Escher tessellations: <https://www.bbc.co.uk/bitesize/topics/zgsfr82/resources/1>  
 Maths patterns in nature: <https://www.fi.edu/math-patterns-nature>



## Science

Fingerprint Experiment: [https://www.youtube.com/watch?v=cZKGpg\\_ftw](https://www.youtube.com/watch?v=cZKGpg_ftw)

News about fingerprints on Ancient Egyptian Coffin: <https://www.bbc.co.uk/newsround/35632502>

Fingerprint Quiz: [http://news.bbc.co.uk/cbbcnews/hi/newsid\\_314000/newsid\\_3148500/3148525.stm](http://news.bbc.co.uk/cbbcnews/hi/newsid_314000/newsid_3148500/3148525.stm)

Operation Ouch fingerprint experiment: <https://www.bbc.co.uk/iplayer/episode/m000k4nx/operation-ouch-do-try-this-at-home-8-fingerprints>

The rainbow milk experiment: <https://fun-science.org.uk/the-rainbow-milk-experiment/>

Animals with spots and stripes: <https://www.bbc.co.uk/bitesize/clips/zpn6n39#:~:text=Ask%20the%20children%20to%20design,by%20combating%20the%20potential%20dangers.>

## Humanities

How to make a Roman mosaic: [http://downloads.bbc.co.uk/history/handsonhistory/romans\\_mosaic.pdf](http://downloads.bbc.co.uk/history/handsonhistory/romans_mosaic.pdf)

St. Albans Museum – take a virtual tour of the museum too: <https://www.stalbansmuseums.org.uk/making-mosaics>

Virtual tour of British museum – what patterns can you find in the different galleries? <https://blog.britishmuseum.org/how-to-explore-the-british-museum-from-home/>

Make a friendship bracelet – weaving like Annie Albers: <https://www.tate.org.uk/kids/make/cut-paste/make-friendship-bracelet>

Make a placemat <https://www.activityvillage.co.uk/weaving>

Mayan women weaving: <https://mayaarchaeologist.co.uk/2014/01/10/maya-weaving-2/>

Various projects involving pattern: <https://www.vam.ac.uk/info/make-and-do>

Pattern lessons: <https://twotempleplace.org/wp-content/uploads/2017/12/Art-D-esign-Unit-3B-Investigating-Pattern-WM.pdf>

Islamic art: [https://vanda-production-assets.s3.amazonaws.com/2016/09/20/09/46/37/e215e890-1f5b-44a0-a2ae-4343dfd2af7a/IAD\\_Maths.pdf](https://vanda-production-assets.s3.amazonaws.com/2016/09/20/09/46/37/e215e890-1f5b-44a0-a2ae-4343dfd2af7a/IAD_Maths.pdf)

<https://www.vam.ac.uk/info/teachers-resources-for-primary-schools>

## Creative Arts

William Morris Museum – activities at home: <https://www.wmgallery.org.uk/home>

Hackney Museum African Fabrics: <https://hackney-museum.hackney.gov.uk/resources-for-teachers/>

Carnival masks: <https://www.natgeokids.com/uk/primary-resource/carnival-masks-primary-resource/>

Virtual tours of artworks <https://artsandculture.google.com/category/art-movement>

Virtual tour of the Met: <https://www.metmuseum.org/art/online-features/metkids/>

Yayoi Kusama: <https://www.tate.org.uk/kids/explore/who-is/who-yayoi-kusama>

Music: <https://www.bbc.co.uk/teach/ten-pieces/ten-pieces-at-home/zjy3382> using repeated patterns such as Ostinato and Riffs to perform Mambo (West Side Story) using kitchen items. Also week 6 Create your own 3D sculpture asks you to spot patterns.

Learn about some of the greatest places in Spain and the Moorish architecture that has geometric patterns:



Magnificent Mezquita in Cordoba: [https://www.youtube.com/watch?v=7YvNMDy\\_h3g](https://www.youtube.com/watch?v=7YvNMDy_h3g)

Granada, Spain: The Exquisite Alhambra <https://www.youtube.com/watch?v=IseEViidy8>

## Answers to Patterns questions:

1. A - pieces of fabric sewn onto material to form a pattern . 2. Scotland.
3. 32
4. Paisley