

Developing practice

To develop our understanding of how to teach pattern, we ...

- Researched websites and reading:
 - 'Promoting repeating patterns with young children' by Marina Papić
 - <http://prek-math-te.stanford.edu/patterns-algebra/mathematics-patterns-and-algebra>
 - 'What is your pattern?' and 'Developing Pattern Awareness with Young children' from nrich.maths.org
 - 'What young children know and need to learn about pattern and algebraic thinking' by Herbert P. Ginsburg
 - 'The World of Pattern' by Nursery World (24 March-6 April 2014)
- Shared information and knowledge with colleagues
- Found out what the children already knew about patterns
- Provided the children with pattern resources and found out what they did with them and what they were able to create
- Introduced the children to a range of images to see which elements they thought were patterned

What the children did



Initially the children spent a lot of time looking at patterns on clothes, wallpaper, in photographs and pictures and discussing what a pattern actually was. The children learnt that a repeating pattern has a 'unit of repeat'.



Once the children had learnt this they began to have discussions amongst themselves about patterns in the environment and began to look for patterns wherever they went. We learnt that we

don't always see the same thing with some people seeing a repeating colour and others a repeating

shape.





Our next step was to explore different objects and use these to make patterns or arrangements. We began to talk about what we did and the different resources we used.

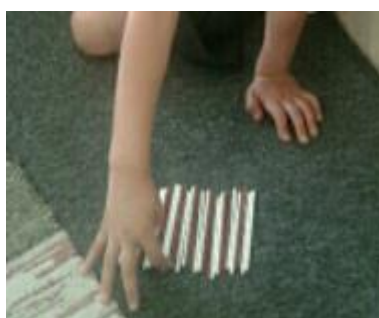
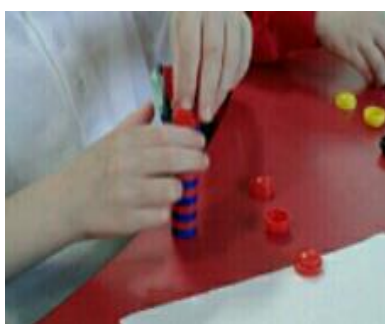
We looked at different people who are known for their pattern making skills such as the artist, Wassily Kandinsky. We had lots of fun recreating some of these patterns.



After this, we learnt what an AB pattern is and explored lots of different patterns and resources that followed this 'unit of repeat'. Initially children copied and continued the patterns made by the teacher then created their own patterns. We realised we could keep this structure but could create AB patterns in circles and in lines and even using our bodies.



Eventually we learnt how to create our own AB patterns and how to represent these in many different ways. We had lots of fun finding what resources we could use to create our patterns.



Our final task was to challenge ourselves to extend our patterning from AB to ABC and beyond.

gem, stick, counter, gem, stick, counter



After this, we showed our parents what we knew and held an event for parents explaining why we were learning about pattern and the different types of patterns we could make.

Welcome to Foundations
Number Day
 What is a pattern?

Big Ideas of Pattern

Topic	Big Ideas	Examples
Pattern and Regularity	- Patterns are sequences (repeating or growing) governed by a rule; they exist both in the world and in mathematics. - Identifying the rule of a pattern brings predictability and allows us to make generalizations. - The same pattern can be found in many different forms.	- Dots on a ladybug; posts of a fence; adding 1 to any number gives you the next number. - After lunch comes recess; if we keep counting people's feet, it will always be 2 more. - Big block, little block; big block little block; big block, little block... Off snap, clap, snap, clap, snap, clap...



We had fun patterning with our parents.

Impact

The children of Foundation 2 at Sutton Road Primary School developed knowledge of what patterns were and how to create them in different ways. We learnt that children do not always see the same patterns and often only create them in lines using different colour objects. We knew the children had really understood patterns when a group of children used their knowledge of patterns to group objects to make them easier to count. The children initially made towers of tens to support counting then realised if they made patterns with the shapes they did not need to count how many objects there were they simply knew by the shapes they created.



Key messages

The most important things we learned about pattern are...

It is not simply red, blue, red blue

A repeating pattern does not always have to be in a line

We all do not see pattern initially and this needs to be developed over time

The concept of patterning needs to be taught at an early age (Staff and children in F1 will be focussing on this next year)

Home learning is key and parents need to be aware of patterning and progression.