

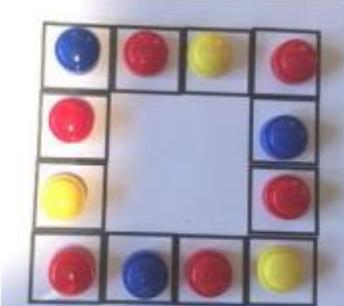
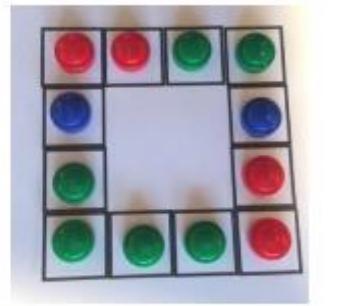


Medium Term Planning Maths – Pattern

Medium -Term Planning 'Maths Map' Are you properly equipped for your journey yet?	Pattern
<p>End destination – Children will be able to continue, copy and create an AB, ABB, ABBC patterns and identify the pattern rule (unit of repeat) in an AB, ABB, ABBC patterns. Spot an error and 'correct' a pattern and explain whether a circular pattern is continuous or not</p>	
1. Check Your facts Subject knowledge References:	2. Secure Your Expert Language! Key language AND definitions so everyone is consistent.
NCETM Progression document https://www.ncetm.org.uk/media/5csbyon/typical-progression-pattern.pdf	Pattern type – pattern, repeat, sequence, order, rule Shapes and colours – circle, square, triangle, red, blue, yellow, big, small Actions and Movement – clap, tap, stomp, jump, move, copy Describing patterns – same, different, next, before, after, again, change, repeat
	3. Predict the Hazards and Opportunities! Identify the misconceptions and remember these are VERY valuable teaching opportunities. <ul style="list-style-type: none">• not recognising a pattern such as ABBA (e.g. stating that patterns cannot have two of the same colour together)• when copying or extending a pattern, changing it before making three repeats• spotting that there is an error but not being able to describe it• identifying an error but not being able to correct it• correcting an error by making a 'local correction', which just moves the



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	Nature and environment – sports, stripes, waves, zigzag, spirals, symmetry	<p>problem along (e.g. by adding an extra item when colours have been swapped)</p> <ul style="list-style-type: none">describing the whole pattern instead of identifying the part which repeats, or the unit of repeat. <p>A pattern that works: </p> <p>A pattern that doesn't work: </p> <p>When exploring if a pattern works or not, draw attention to the number of spaces and the size of the unit of repeat.</p>
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4. Identify Your 'Vehicles/Hooks'

What have the children shown you they are interested in that you can use to engage their interest and build upon what they already understand?

5. Build Essential Connections!

Which other existing mathematical tools will they need to bring out and use here? Make these neutral.

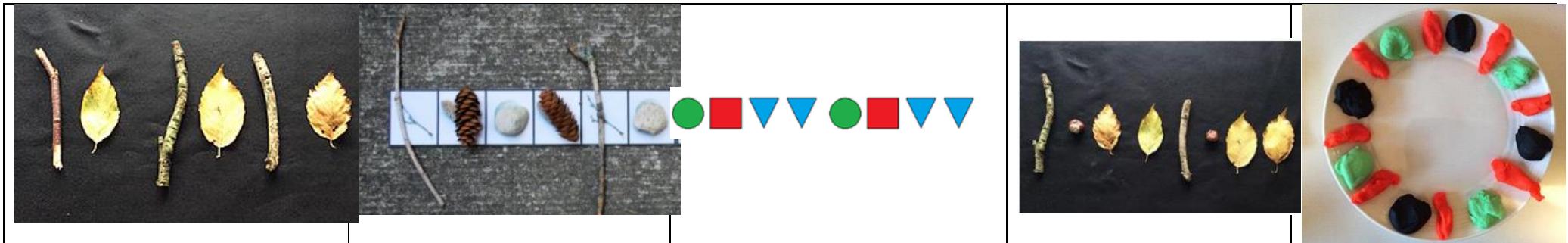
6. Sharpen Those Tools!

List the activities that will give children the opportunity to focus upon and become skilful in using specific tools. Use hyperlinks, images of tasks, book names and page



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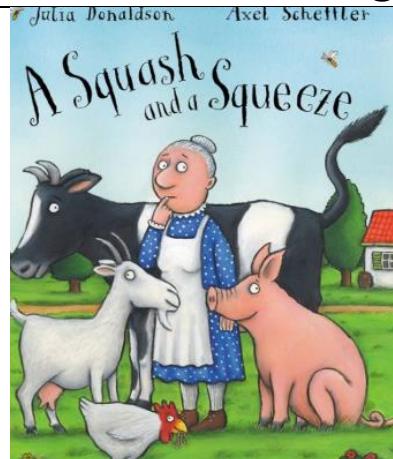
<ul style="list-style-type: none">• Nature/natural world• Nursery rhymes and singing• Snack time fruit• Model making• Interests – observe and use• Ordering and sorting	<ul style="list-style-type: none">• Communicating - Talking/Demonstrating/Pictorial• Pattern (noticing/seeing pattern in numbers)	NCETM	NCETM Progression document https://www.ncetm.org.uk/media/5csbtyon/typical-progression-pattern.pdf
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NCETM - Stories and rhymes present a good opportunity to explore a growing pattern, e.g. 'There was an Old Lady who Swallowed a Fly', or 'A Squash and a Squeeze'. Explore representing these diagrammatically – to see a staircase pattern, for example



7. 'Concrete' Experiences 'Walk the Walk'

'Move from 'Real World' to 'Maths World'.

Concrete real world



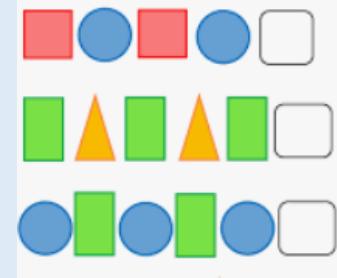
8. Creating Representations 'Capture the experience using an Image!' (Pictorial)

Pictorial



9. Translate the Experience into 'Abstract'

Abstract





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End Point - What do I want the children to understand and be able to do? Long Term aims for pattern – Nursery/Reception

- Continue, copy and create an AB pattern.
- Identify the pattern rule (unit of repeat) in an AB pattern.
- Continue, copy and create ABB, ABBC (etc.) patterns.
- Identify the pattern rule (unit of repeat) in ABB, ABBC (etc.) patterns.
- Spot an error and 'correct' a pattern.
- Explain whether a circular pattern is continuous or not

Characteristics of Effective Learning – How do young children learn best?

Playing and exploring – engagement
Finding out and exploring
Playing with what they know
Being willing to 'have a go'

Active learning – motivation
Being involved and concentrating
Keeping trying
Enjoying achieving what they set out to do

Creating and thinking critically – thinking
Having their own ideas
Making links
Choosing ways to do things



Medium Term Planning Maths – Pattern

Children's interests – What are this group of children motivated by? What areas interest them? How are these children engaged in their learning? What do they love to do? When are they at their most happiest?

Steps needed	Adult led/provocations/enhancements	Continuous Provision areas