

## contents and sample pages

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# Foreword

We are surrounded by patterns. Patterns come in various shapes and forms, such as the patterns found in music, simple patterns on clothing and the complicated number patterns found in mathematics. The number system we use is based on patterns. In fact, mathematics has been described as the 'science' of patterns.

The activities in *Patterns in Mathematics – Lower* enable students to participate in pattern work involving shapes and number using a variety of materials. The book is suitable for students at various levels in the lower school as the activities vary from simple shape patterns to number sequences and finding the rule. Students are able to participate in all types of pattern work in different contexts. This will develop their confidence to observe, describe, create and extend patterns.

Icons have been included on every activity page to show the materials required for the lesson.



## Contents

Teachers Notes	ii – iii	Patterns in the Street	18
Using an Assessment Proforma	iv	Calendar Patterns	19
Outcome Links	iv	Number Patterns with Addition	20
Assessment Proforma	v	Number Patterns	21
Patterns Checklist	vi	What's the Rule?	22
Making a Pattern	vii	Number Patterns with Take Away	23
Bead Patterns	viii	More Number Patterns	24
Making Patterns with a Paper Strip	ix	Pattern Rules Challenge	25
Patterns in the Vegetable Garden	x	Patterns in Tables	26
Patterns with Letters and Numbers	xi	Missing Pattern Parts	27
Making Patterns Longer	xii	Mirror, Mirror!	28
Body Patterns	xiii	Mirror Patterns	29
Patterns in Pants	xiv	Making a Mirror Pattern	30
Is it a Pattern?	xv	Mirror Patterns 2	31
Patterns Around My School	xvi	Tile Patterns	32
Fun with Patterns	xvii	Cube Patterns	33
Patterns with Dice	xviii	Pattern Games	34
Money Patterns	xix	Money Patterns (Appendix 1)	35
Weaving Patterns	xx	J–100 Grid (Appendix 2)	35
Patterns with Straws	xxi	Spare Shapes (Appendix 3)	36
Colourful Patterns	xxii	Answers	37 – 39
Stained Glass Window	xxiii		

# Making a Pattern



## 1 Making a pattern with cubes.

This is a design. Use cubes to make this design.



This is a pattern made by using the design placed over and over.

(a) Make a pattern with cubes.

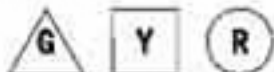


The pattern is blue, red, blue, red, blue, red.

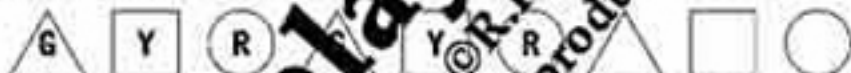
(b) Colour the pattern above.

## 2 Making a pattern with shapes.

Here is a design using shapes.



This is a pattern using the design.



(a) Colour the pattern and make the pattern with your shapes.

Look carefully at the letters. What colour should the last three shapes be to make the pattern long?

(b) Colour the last three shapes.

## 3 Use four shapes to make a design. Show your teacher.

(a) Make a pattern using the design. (b) Draw your pattern below.



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# Patterns in Pants



- 1 Talk about the patterns on the clowns' pants with a partner.

Colour each clown. Use the same colour for the clowns who have matching pants.

- 2 Cut out each clown. Play a barrier game with a partner.

- Make sure you and your partner have ten clowns each.
- One person makes a pattern using the clowns.
- Describe your pattern to your partner. (Make sure he or she can't see!)
- When your partner is finished, take the barrier away. Are the patterns the same?



	Use your clowns to play 'Fish' or 'Memory' with a partner.	