

Helping your child with Patterns and Algebra

Patterns occur in many everyday situations. Algebra is one way in which to represent a pattern. To recognise a pattern, children need to have a clear understanding of what a pattern is. In mathematics, the term pattern is talking about repeated pattern. In the early years of Primary school, children will learn to recognise, make, describe and continue repeating pattern. Initially these patterns may be created from shapes, objects or picture before moving to number patterns.

As children progress through the primary years, they will learn to find the missing numbers in patterns and discover relationships between addition and subtraction and multiplication and division. They will also describe patterns in words and be able to determine a rule to describe a pattern. Students in the secondary school will learn to use letters to represent numbers and to appreciate that a letter can stand in place of a number of objects.

What can you do at home?

With young children:

- Discuss the numbers on houses in the street and ask your child to describe what is happening to the numbers as you walk along the street.
- Look at samples of wall paper and talk about patterns. Where does the pattern start? How many times is it repeated across the paper?
- Play games involving body actions such as clapping and stamping your feet. Ask your child to repeat the pattern and then to make up a pattern for you to repeat.
- Have your child use beads, buttons or pegs to make a repeated pattern and tell you about the pattern. The pattern could be based on colour, size, shape, or items (e.g, peg, peg, spoon, peg, peg, spoon). Ask your child to describe and tell you how many objects make up each pattern.
- Use the materials placed randomly and ask your child to explain to you if it is a pattern.
- Ask your child to make as many different patterns as he or she can form three blue, three white and three red pegs.

With older children:

- Help your child create beaded jewellery.
- Teach your child to knit. Decreasing or increasing the number of stitches usually follows a pattern.
- Landscaping and house designs will often include elements of pattern. For example, many fences or paved areas include pattern arrangements. Ask your child to describe the pattern.
- Look for patterns in the numbers on a calendar. Why do these patterns occur?

- When driving for long distances in the car play number games to investigate patterns such as, guess my number.
- When watching sporting games, calculate scores or investigate combinations of scoring possibilities.



Write the Missing Numbers (1 - 10)

1	
2	
3	8
4	
5	10

