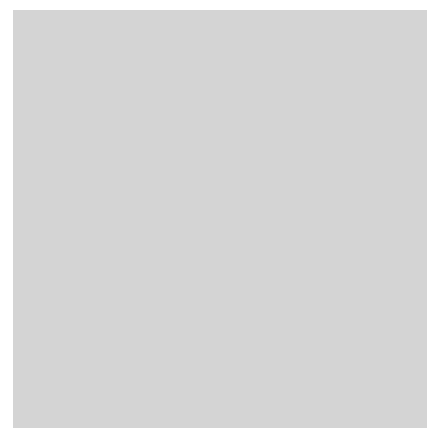
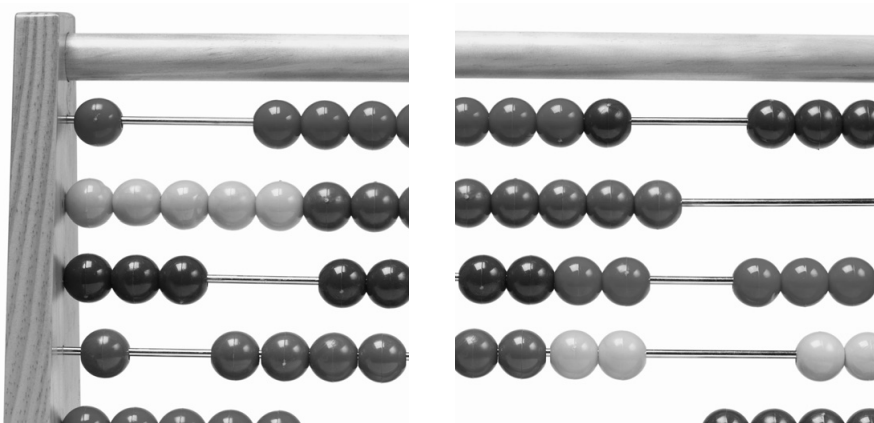




Patterns and algebra

Ways to help your child



Patterns occur in everyday situations. Algebra is one way in which to represent a pattern. In the early years of primary school children learn to recognise, make, describe and continue repeating patterns.

Initially these patterns may be created from shapes, objects or pictures before moving to focus on numbers in patterns. Children need to recognise how many parts (or elements) make up a pattern.

Later students will learn to find missing numbers in patterns and discover the relationships between addition and division. They will also describe patterns in words and be able to determine a rule to describe a pattern.

Students in secondary school will learn to use letters to represent numbers and to appreciate that a letter can stand in place of the number of objects.

For example: Students will initially learn relationships between numbers, such as $3+4 = 4+3$ and later replace these with letters, so this becomes: $a+b = b+a$. In describing a general principle, the letters a and b can stand for any number.

Ways to help at home

- Look for patterns in your home, such as wallpaper, paving, etc. Ask your child where the pattern starts and how many times it is repeated

- Play clapping games together that involve repeating a sound pattern
- Make patterns with items in the home, such as pegs and spoons. You can sort them by colour, shape and size
- Help your child to create beaded jewellery using patterns
- With older children you can play number games - such as "I am thinking of a number between 5 and 20 and it is a multiple of 3".