



Patterns and their applications in the Australian Curriculum: Mathematics

<http://topdrawer.aamt.edu.au/Patterns/Big-ideas>

The following table lists all the descriptions in the first four years of the Australian Curriculum: Mathematics that contain reference to patterns or in which a pattern approach can be usefully applied.

Descriptions in *italics* are from the Patterns & Algebra substrand. All these descriptions are addressed directly in the Patterns Drawer.

The remaining descriptions come from the other Number & Algebra substrands and the Measurement & Geometry and the Statistics & Probability strands. They are only addressed in the Patterns Drawer in so far as they show the application of pattern ideas.

Foundation Year

- ACMNA005 Copy, continue and create patterns with objects and drawings
ACMMG009 Sort, describe and name familiar two-dimensional shapes and three-dimensional objects in the environment

Year 1

- ACMNA012 Skip count by twos, fives and tens starting from zero
ACMNA013 Order numbers to at least 100, and locate these numbers on a number line
ACMNA016 Recognise and describe one-half as one of two equal parts of a whole.
ACMNA018 Investigate and describe number patterns formed by skip counting and patterns with objects
ACMMG022 Recognise and classify familiar two-dimensional shapes and three-dimensional objects using obvious features

Year 2

- ACMNA026 Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and ten from any starting point, then moving to other sequences
ACMNA031 Recognise and represent multiplication as repeated addition, groups and arrays
ACMNA032 Recognise and represent division as grouping into equal sets and solve simple problems using these representations
ACMNA033 Recognise and interpret common uses of halves, quarters and eighths of shapes and collections
ACMNA035 Describe patterns with numbers and identify missing elements
ACMNA036 Solve problems by using number sentences for addition or subtraction
ACMMG042 Describe and draw two-dimensional shapes, with and without digital technologies
ACMMG043 Describe the features of three-dimensional objects
ACMMG046 Identify and describe half and quarter turns



Year 3

- ACMNA051 Investigate the conditions required for a number to be odd or even and identify odd and even numbers
- ACMNA056 Recall multiplication facts of two, three, five and ten and related division facts
- ACMNA058 Model and represent unit fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$, and their multiples to a complete whole
- ACMNA060 Describe, continue, and create number patterns resulting from performing addition or subtraction
- ACMMGo66 Identify symmetry in the environment