# Patterning

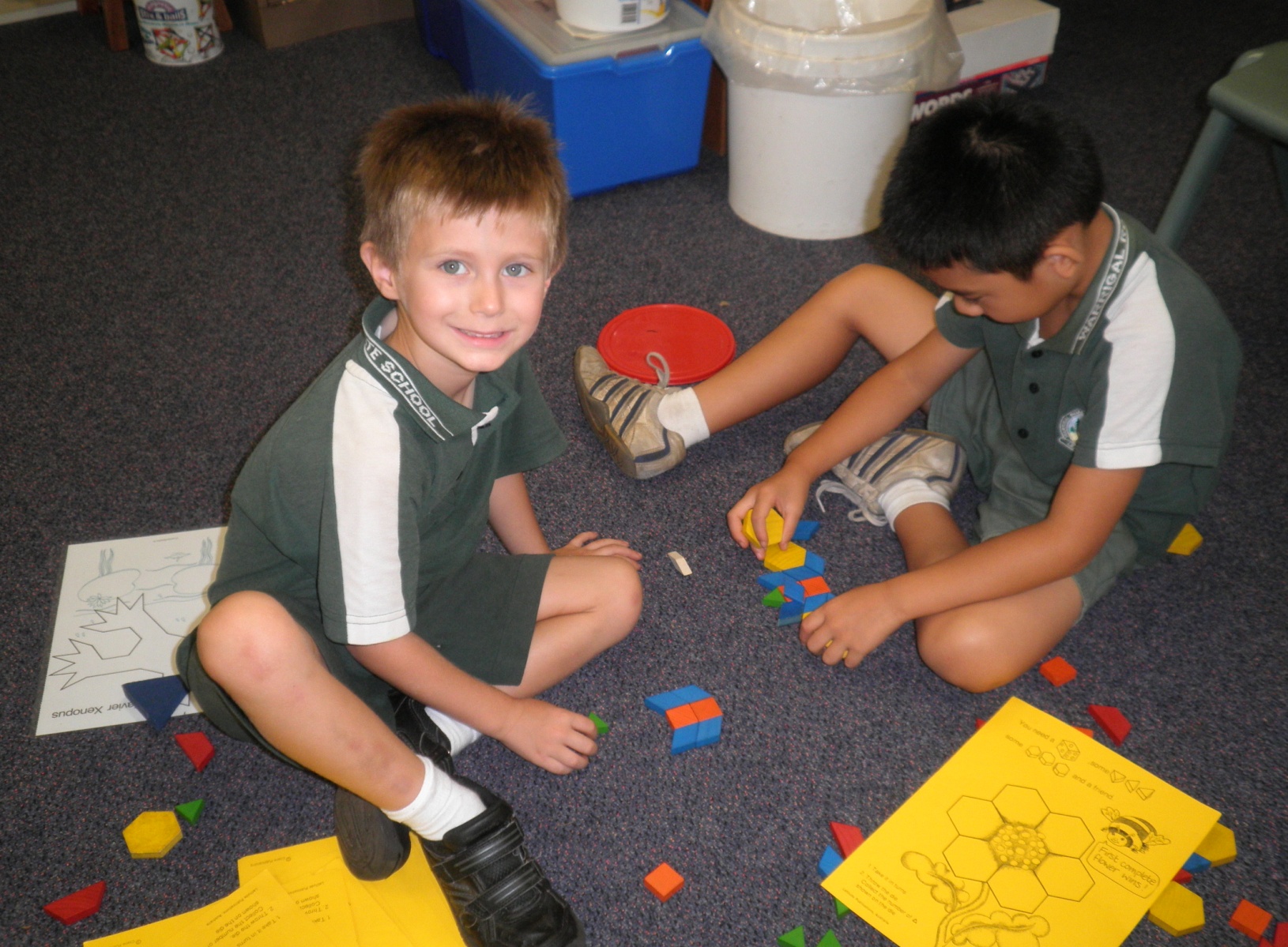
Patterns describe consistent change and relationships

Recognising patterns and using pattern rules helps students to make sense of the world around them. Algebraic reasoning and spatial reasoning are enhanced when students in the early years become aware of:

* patterns in their environment
* the relationships between patterns and rules
* how patterns can be described using numbers.

Patterns can be described in a variety of ways. These include:

* Repeating patterns — where elements or units are repeated
* Growing patterns — where elements are increased at each phase
* Number patterns — where numbers are used to describe a growing pattern
* Linear patterns — where the pattern changes and continues in one direction
* 2D and 3D patterns — where the pattern continues in many directions or levels



Repeating patterns

Students learn to identify and describe patterns through:

* exploring their natural and manmade environments
* copying and continuing sensory, movement and symbolic patterns
* explicit instruction and discussion about patterning.

The Australian curriculum refers to early patterning with objects, drawings and number patterns formed by counting. The connection between environmental patterns and number patterns is an important focus in the early years.

Helpful Information

Supporting learning resource — *About patterns and algebra* (QCAA) http://www.qcaa.qld.edu.au/downloads/p\_10/kla\_maths\_info\_pattern.pdf

Patterns can be identified to make sense of the world around us.



2D patterns can be copied.



Sound patterns can be repeated.



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Number patterns can be created when a function is repeated e.g. +2 +2

Routines and repeated processes are patterns.