




Topic: Patterns and algebra

Exploring patterns in the environment 2

Lesson concepts

-  **Patterns** — Pattern/non pattern
-  **Patterns** — Continuing patterns
-  **Patterns** — Describing patterns

Today students will:

- ▶ identify patterns in the environment
- ▶ create sensory patterns.

Resources

Digital

Learning object — Tune in (Rhymes)

Find and prepare

digital camera
old T-shirt or similar to paint on (optional)
painting and collage materials

Key terms

pattern, same, describe, copy,
non-pattern, same, different,
arrangement, inquiry, question,
continue, create

For definitions and explanations
of terms, please see the [Glossary](#).

Lesson

Introduce the lesson

Say to students

‘ In the last lesson, you began to explore patterns in songs, rhymes and sounds. In this lesson you will learn about movement patterns and patterns that you can see. Let’s start with movement patterns. ’

Discuss with students:

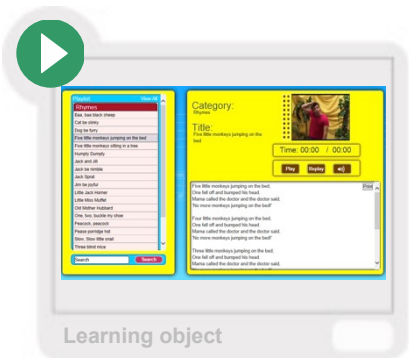
- the sound patterns they can make in the last lesson
- what makes them a pattern.

Remind students that they are continuing the Mathematical Guided Inquiry to answer the question ‘**How can you show a pattern?**’

Explore patterns in the environment (Discover)

Explore movement patterns

Open the **Learning object — Tune in (Rhymes)** and listen to the rhyme ‘Five little monkeys jumping on the bed’.



Ask students to:

- copy the pattern in the song
- identify the repeated elements (that is, to jump on the bed, touch fingers, and so on).

Recall sequences by referring to the pattern in games such as ‘When I went on holidays’.
 Person one says, ‘When I went on holidays I took my togs’. Person two adds, ‘When I went on holidays I took my togs and my hat’. Person three adds, ‘When I went on holidays I took my togs, my hat and my skipping rope.’



Identify the repeated elements of a routine (for example: 'When I have lunch at school I go to the toilet, wash my hands, collect my lunch box, sit with my friends, eat my food, put the rubbish in the bin, close my lunch box and put it away.').

Ask students to:

- mime these actions in the correct sequence
- repeat the sequence at least three times.

Note

Frequently reinforce throughout the inquiry how:

- patterns have something repeated
- the repeated part could have one part, a number of parts or an increasing number of parts
- the parts could be many different things such as objects, colours, shapes, sounds, actions or words
- patterns that you see and hear don't always go in a left to right sequence but can also go up and down (stripes on a jumper or clapping and singing at the same time) or in all directions (petals on a flower, tree trunk rings or paving).

Explore visual patterns

Explain that students will explore the backyard environment and take photos of and collect samples of patterns that they can see.

Ask students to:

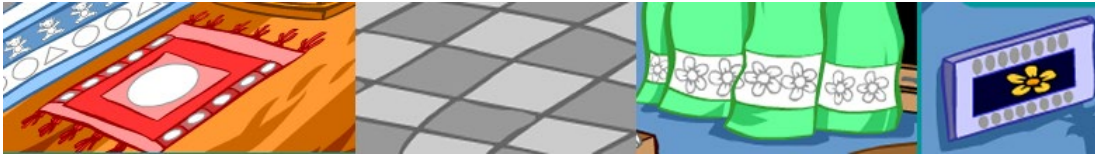
- look for and photograph visual patterns such as those found on flowers, leaves, tiling, paving, brick work, flags



Focus questions

- Q: *What pattern can you see?*
- Q: *What is repeated?*
- Q: *How could you continue the pattern?*

- collect items that are covered with patterns such as curtains, wrapping paper, fabric, mats, rugs



- discuss the patterns they have found.

Focus questions

Q: *What pattern can you see?*

Q: *What is repeated?*

Q: *How could you continue the pattern onto your own fabric (wrapping paper)?*

Ask students to:

- copy (for example: draw or paint) a pattern they have found
- create and continue their own visual patterns to decorate a clothing item (such as an old T-shirt or piece of fabric, a headband made of cardboard or wrapping paper) using paint and objects to print with (such as potato cuts or cut sponges).



Display students' photos, collections and printed patterns.

Focus questions

Q: *What patterns did you observe?*

Q: *Which type of pattern did you make?*

Q: *How could you describe this pattern?*