

Number and Algebra Patterns

Children develop numeracy and maths skills through everyday activities like counting, looking at shapes, and talking about sizes and patterns.

CURRICULUM

Early Years Learning Framework Links (EYLF):

- Children are connected with and contribute to their world
- Children are confident and involved learners
- Children are effective communicators

NSW Syllabus Links:

Patterns and Algebra

- Recognises, describes and continues repeating patterns. (MA2-8NA)

Working Mathematically

- Communicating – Describes mathematical situations using everyday language, actions, materials and informal recordings. (Mae-1WM)
- Problem Solving – Uses objects, actions, technology and/or trial and error to explore mathematical problems. (MA2-2WM)
- Reasoning – Uses concrete materials and/or pictorial representations to support conclusions. (MA2-3WM)

Learning Progressions (LPs)

FAMILIES

READ 2 min

Patterns help children learn sequencing and to make predictions which leads to mathematical skills and establishing order in life.

Exploring patterns is important for identifying many different kinds of mathematical relationships. It underpins memorisation of the counting sequence and understanding number operations, for instance recognising that if you add numbers in a different order their total stays the same.








Pattern awareness has been described as early algebraic thinking, which involves:

- noticing mathematical features
- identifying the relationship between elements
- observing regularities

Encourage children to describe, copy, represent and extend patterns found in everyday situations, and to create and describe their own patterns.

EXPLORE 10 min

Some ideas for learning in the everyday:

-  Explore the different patterns you find in nature. The patterns on a leaf. The number of petals on a flower. The clouds in the sky.
-  Make a pattern with music - clapping, clicking, stamping.
-  Make a pattern with fruit.
-  Make a pattern with movement and follow the leader.
-  Sort toys into categories, e.g. trucks, cars, planes.
-  Make number patterns.
-  Sort toys by shape, size or colour.

TEACHERS

REFLECT 30 min

Reflect on your knowledge and practice.

Consider the EYLF, NSW Syllabus and LPs:

- Where have these children come from?
- Where are you taking them?

Think about the learning happening in your classroom that builds the knowledge and skills for patterns.

What do you expect from the early learner?

What do you want parents to know about patterns?

How are patterns used across the curriculum?

Consider this skill - What are the connections between literacy and numeracy?

This is an opportunity to share what patterns looks like in your classroom.

ENGAGE 45 min

Engage in a learning conversation with parents.

Suggested conversation starters:

- Is there anything in the video that challenged your thinking about learning?
- What foundational skills do you see in the video?
- How are the children:
 - Practising their skills?
 - Testing their ideas?
 - Building their knowledge?
- What opportunity can you create or do you have at home that develops patterns?