

Disclaimer: Activities with children must always be risk assessed, including for allergies or choking. Children must always have adequate supervision. Resources and materials must always be appropriate for children's age and stage of development.

Exploring pattern

This activity will support children to notice different patterns as well as supporting them to create their own visual patterns, including repeating patterns.

Learning aims

- Identify different patterns
- Develop a rich vocabulary to describe pattern
- Understand simple repeating patterns
- Explore and continue simple patterns of two or three repeating items
- Use familiar objects to create patterns.



Resources

- Loose parts and natural materials such as: leaves, petals, conkers, fir cones, shells, pebbles, sticks, feathers, acorns, nuts and bolts, etc. (ensure there are adequate quantities to create repeating patterns)
- Containers
- Natural pattern cards (make your own showing different patterns of, for example, pebbles and sticks)
- Book: *Pattern Fish* by Trudy Harris (optional).

Activity outline

1. Read *Pattern Fish* by Trudy Harris, which introduces simple and complex patterns (optional)
2. Talk about patterns and encourage discussions about what patterns are. A pattern is something that repeats or occurs more than once – it has a 'unit of repeat'. Show examples of patterns on clothing and give an example of patterns in routines, where the same things happen in the same order each day
3. Explain to children that they are all going to be pattern spotters, using the selection of natural or loose parts in the containers
4. Allow children to explore the resources and talk about any patterns they find. Share patterns that you see in the items. For example, leaves and petals may have interesting repeated patterns with curved sides and points
5. Comment as children explore, introducing new vocabulary to help describe what they see

Disclaimer: Activities with children must always be risk assessed, including for allergies or choking. Children must always have adequate supervision. Resources and materials must always be appropriate for children's age and stage of development.

6. Demonstrate making a repeating ABAB pattern using the resources, e.g. pebble, stick, pebble, stick. Ask children if they can predict which objects come next to follow the pattern and place the items to continue the pattern. Ask them to explain their predictions. Highlight that the ABAB pattern has a unit of repeat (AB) that occurs more than once
7. Repeat with different resources to consolidate the concept
8. Arrange some resources so that they do not make a repeating pattern. What do the children notice? Is it a repeating pattern? How do they know?
9. Provide pattern cards and resources for children to copy.

Extension ideas

- Create two patterns: one repeating and one random. Can children identify the one that has a repeating pattern, how do they know?
- Provide natural materials, loose parts and blank card strips and encourage children to make their own repeating patterns. Can they make repeating patterns starting with a particular object or with a given number of objects?
- Add a third resource to explore ABC patterns.

Special considerations

Important: Activities with children must always be risk assessed, including for allergies or choking. Children must always have adequate supervision. Resources and materials must always be appropriate for children's age and stage of development.

Extending the activity

- Course: [Making maths matter](#)
- Publication: [Supporting mini maths explorers](#)