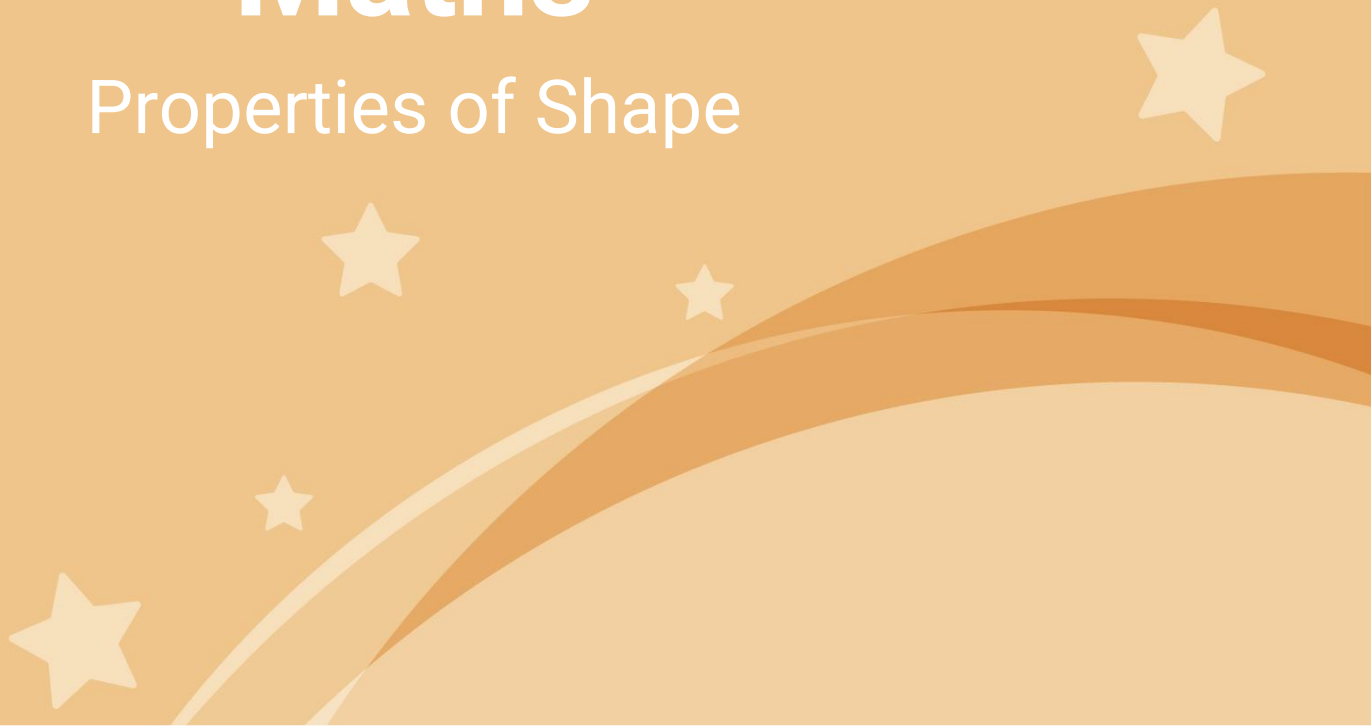




# Maths

## Properties of Shape



# Need a coherently planned sequence of lessons to complement this resource?

**Lesson Breakdown**

Below is our suggestion for the most coherent and progressive sequence to teach this area of Planit Maths steps on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in the scheme.

**2D Shapes (1): Name 2D Shapes**  
This lesson teaches children to recognise and name 2-D shapes. Children identify shapes in their environment and name them. They take part in a shape hunt to search for circles, triangles, squares, rectangles, and other 2-D shapes. Children also demonstrate their understanding of shapes by drawing them on a grid.

**NC Statement:** Recognise and name common 2-D and 3-D shapes.  
**Lesson Aim:** To name common 2D shapes.

**2D Shapes (2): Recognise 2D Shapes**  
This lesson teaches children to recognise and name 2-D shapes. They identify shapes in their environment and name them. They also demonstrate their understanding of shapes by drawing them on a grid.

**NC Statement:** Recognise and name common 2-D and 3-D shapes.  
**Lesson Aim:** To recognise common 2D shapes.

**Introduction**

In this geometry unit, children learn to recognise and name common 2D and 3D shapes including: rectangles, squares, circles, triangles, cuboids, cubes, pyramids and spheres. Children handle these shapes and recognise them in different orientations and sizes and learn that rectangles, triangles, cuboids and pyramids are not always similar to each other. Children also learn to name everyday objects that are representations of 2D and 3D shapes.

**Resources**  
In addition to standard maths resources, you will need: straws or lolly sticks, cubes of playdough or modelling clay, 2D shapes, 3D shapes and examples of everyday 3D shapes.

**SolveIt Lesson Pack: Shape Art**  
Helpful in the correct colour of each shape in the paintings by following the clues. This SolveIt Lesson investigates shape in relation to positional language. It encourages the children to solve a problem by testing out their methods and reporting in an exploratory manner and to explain their findings to others.

**Assessment Statements**  
By the end of this unit, children working towards the expected level will be able to:

- Recognise and name common 2D and 3D shapes;
- Make pictures and patterns with 2D shapes;
- Make models with 3D shapes.

children working at the expected level will be able to:

- Recognise 2D and 3D shapes in real life;
- Recognise 2D and 3D shapes in different sizes and orientations.

**Properties of Shape**  
Maths | Year 1 | Steps to Progression Overview

The aim of this overview is to support teachers using Planit Maths to show the most coherent and progressive sequence to teach each area of maths. We also want to fully support teachers who use the White Rose Maths scheme of learning to make full use of the resources available within Planit Maths. Wherever possible, lesson packs have been matched to teach of the small steps on the White Rose Maths scheme of learning.

**Yearly Overview**

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)			Number: Addition and Subtraction (within 10)			Geometry: Shape		Number: Place Value (within 20)			Consolidation
Spring		Number: Addition and Subtraction (within 20)			Number: Place Value (within 50) (Multiples of 2, 5 and 10 to be included)		Measurement: Length and Height			Measurement: Weight and Volume		Consolidation
Summer	Number: Multiplication and Division (Multiples of 2, 5 and 10 to be included)			Number: Fractions		Geometry: Position and Extension		Number: Place Value (within 100)	Measurement: Mass		Time	Consolidation

See our [Properties of Shapes Steps to Progression](#) document.

Twinkl Planit is our award-winning scheme of work with over 4000 resources.



# Make 2D Shape Patterns



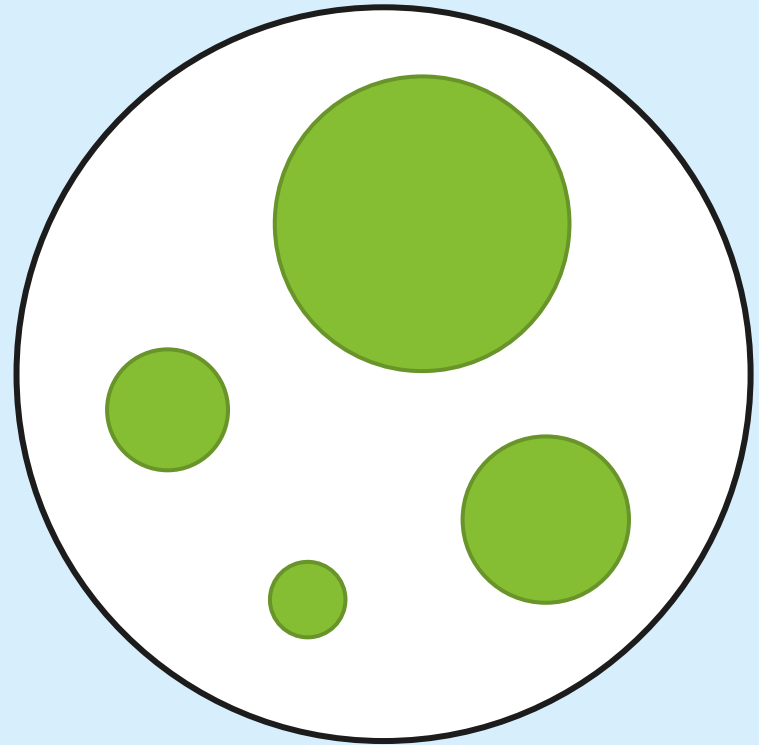
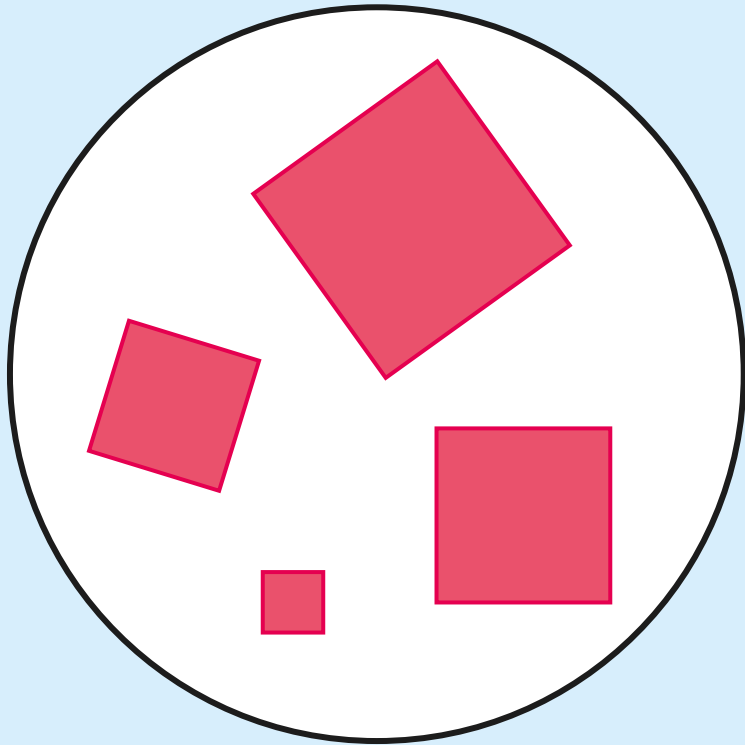
## **Aim**

- To introduce 2D shape patterns.

## **Success Criteria**

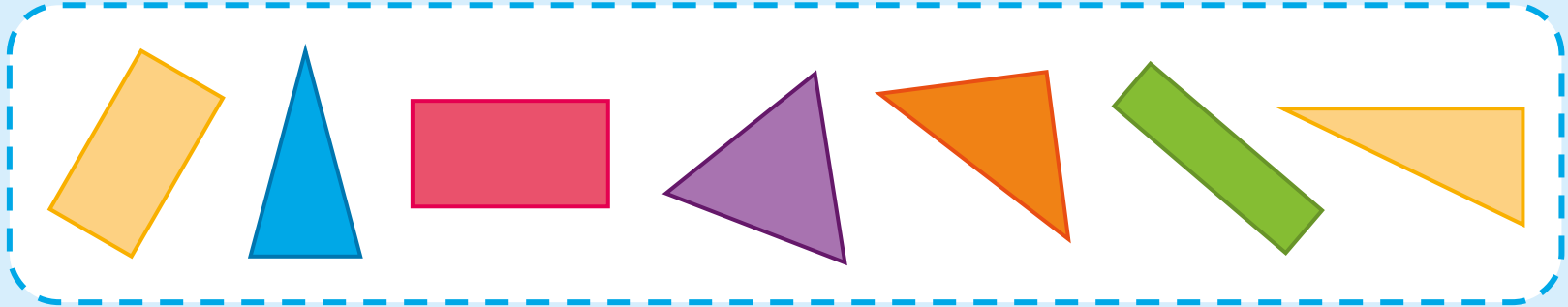
- I can identify the core of 2D shape patterns.
- I can continue 2D shape patterns.
- I can complete 2D shape patterns.
- I can create 2D shape patterns.

How have these 2D shapes been sorted?

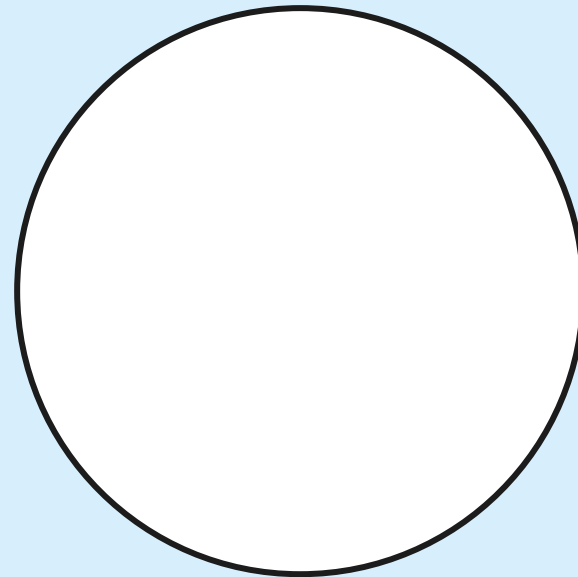
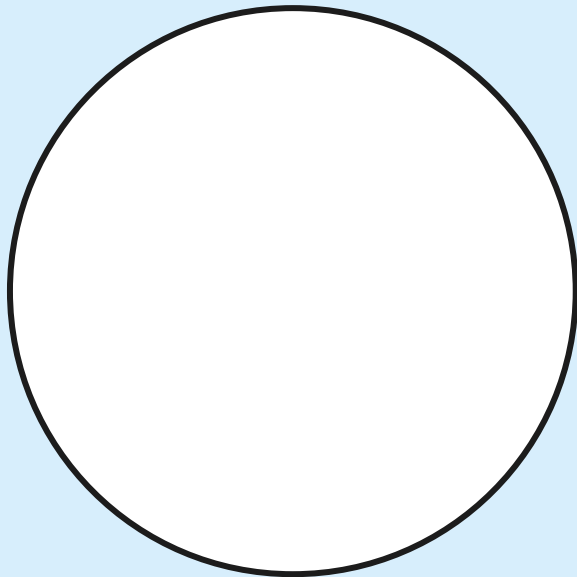


Can you find more ways to describe how they have been sorted?

How would you sort these shapes into 2 groups?

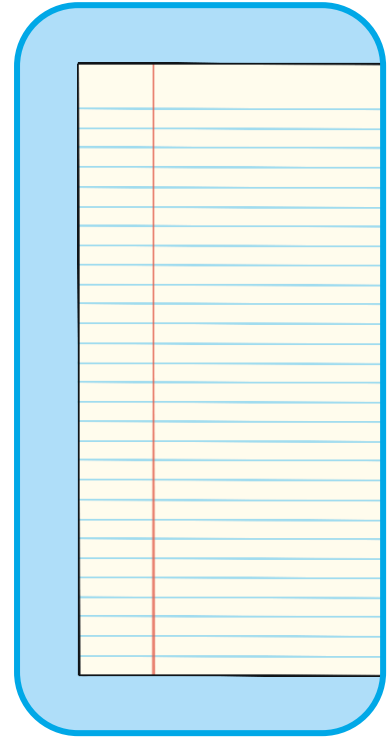
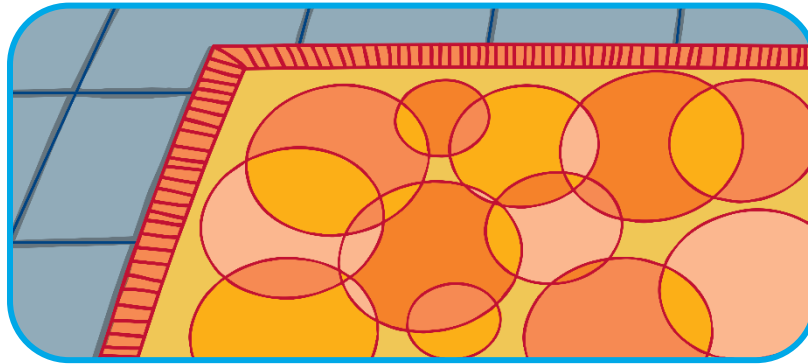
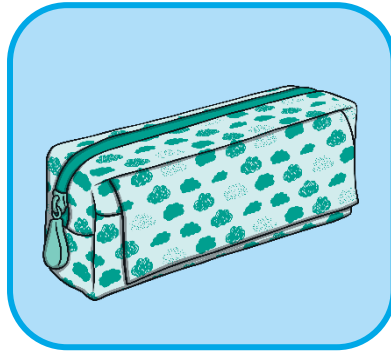
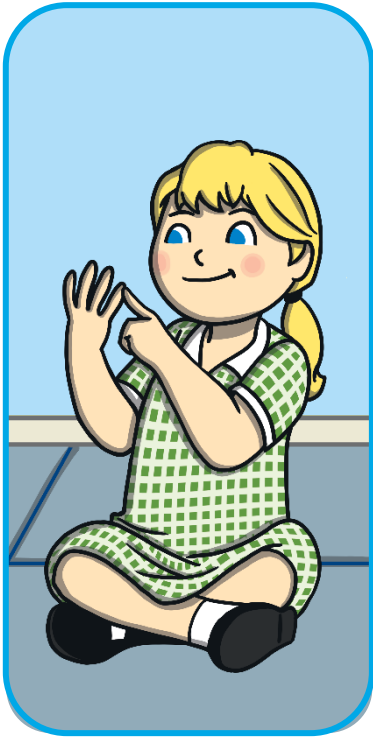


What can you tell me about each group?



## What are patterns?

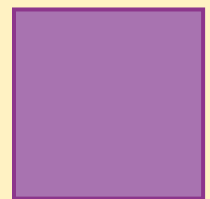
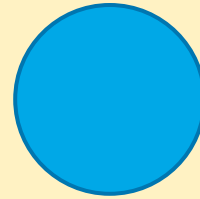
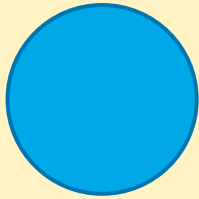
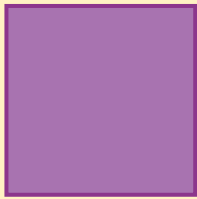
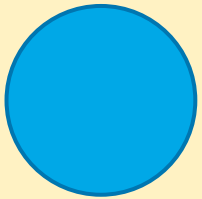
Can you see the patterns on these classroom objects?



What can you tell me about them?

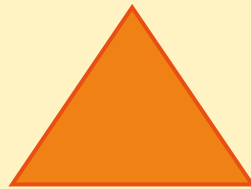
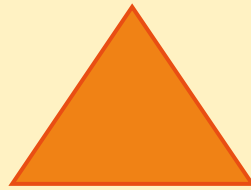
Can you see any patterns in your classroom?

What can you tell me about this pattern?



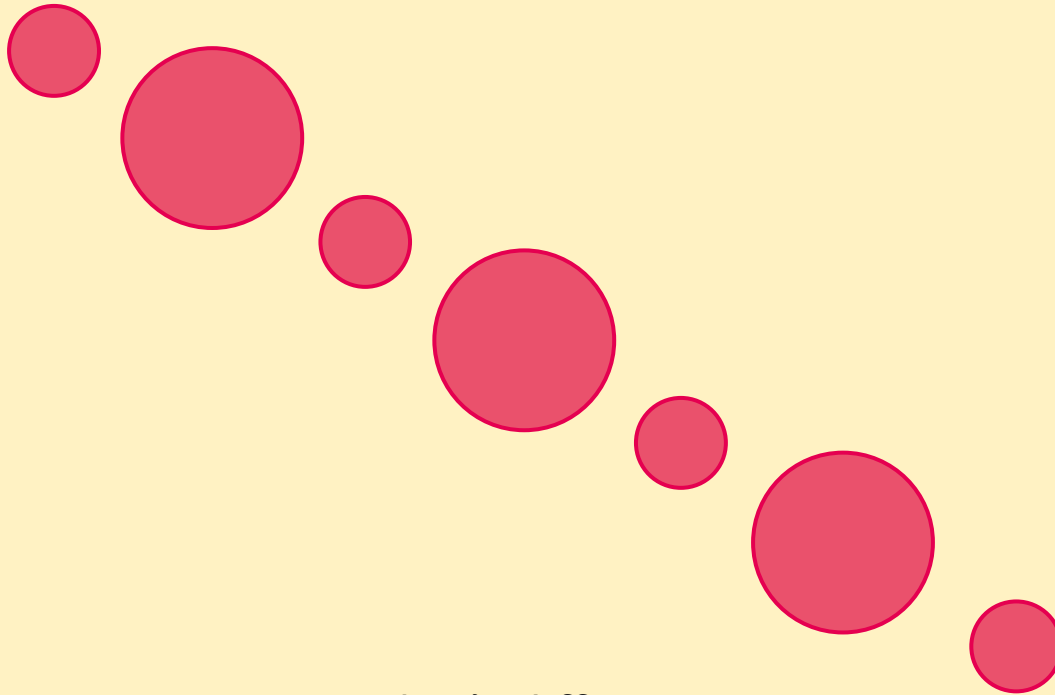


What do you notice about this pattern?



What's the same about the shapes in this pattern?

**The shapes are all circles.**



What's different?

**The circles are different sizes.**

What's the same about the shapes in this pattern?

**The shapes are all triangles.**



What's different?

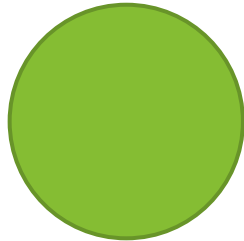
**The triangles are facing different directions.**

Say the name of each shape as it appears.

square



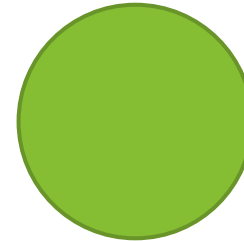
circle



square



circle

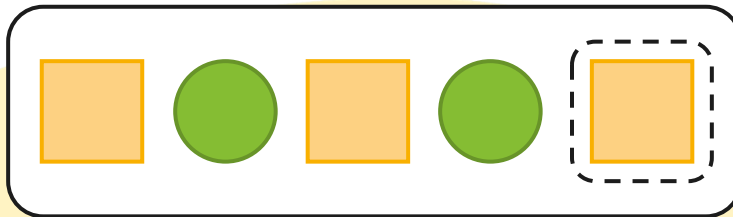


**square**



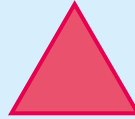
What would the next shape be?

Saying the pattern can help you work out what comes next.



Say the name of each shape as it appears.

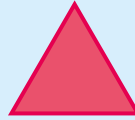
triangle



square



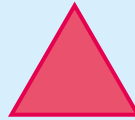
triangle



square



**triangle**

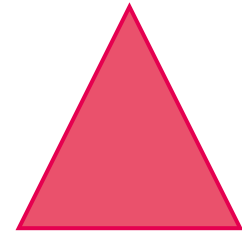
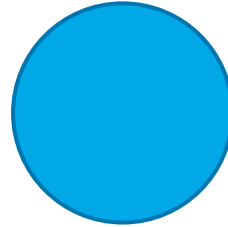
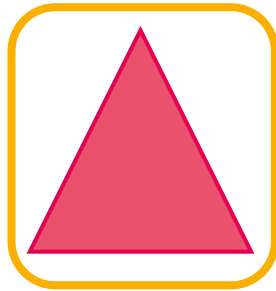
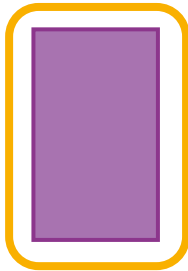
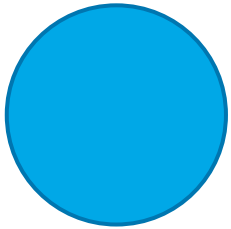


**square**



What would the next 2 shapes be?

Which shape is ~~before~~ the rectangle?



Which shape is ~~after~~ the rectangle?

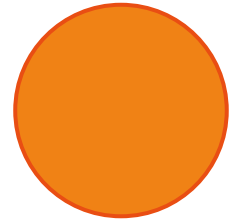
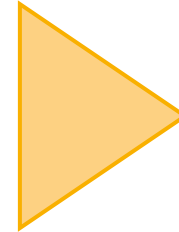
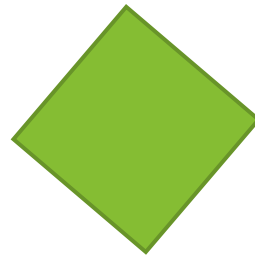
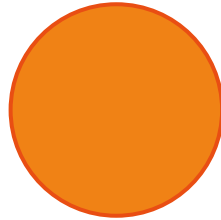
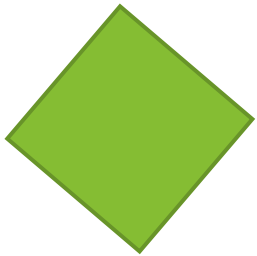
## Find the Shape

Take turns with a talk partner to give clues about a shape.

Use these words to help you.

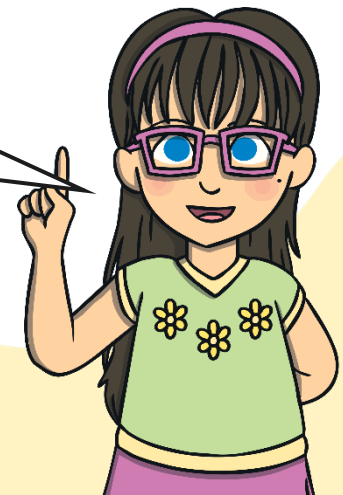
**before**

**after**

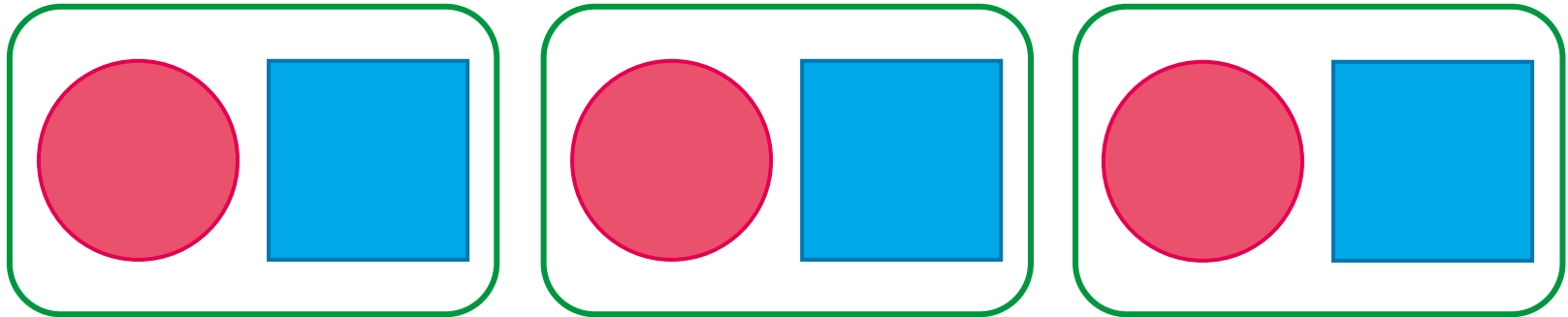


Which shape is  
**before the triangle?**

A square.



The part of a pattern that repeats is called the core.

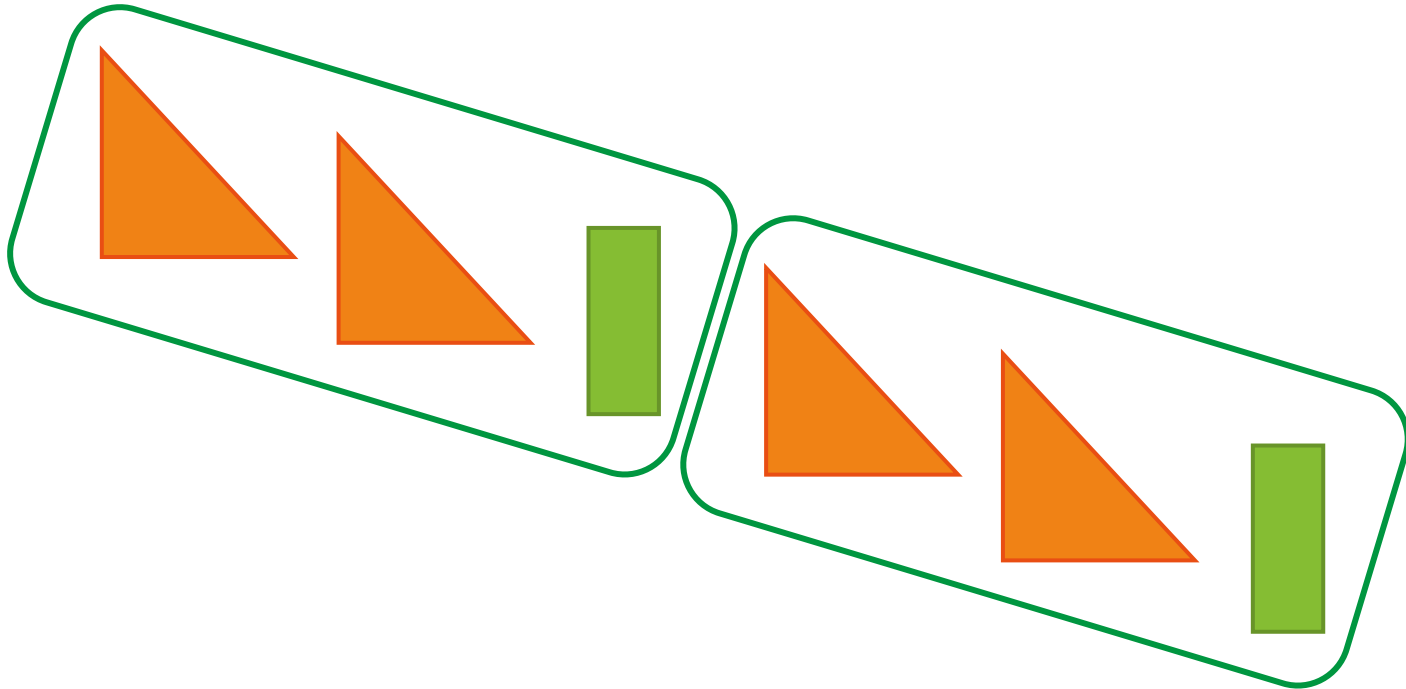


What can you tell me about the core of this pattern?





Can you find the core of this pattern?



What can you tell me about the core of this pattern?



Can you continue this pattern?



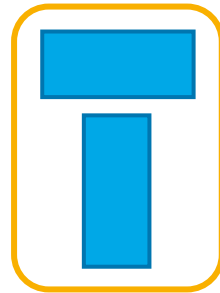
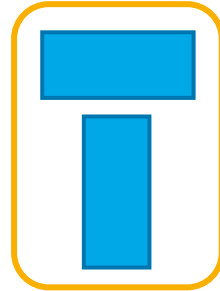
**What strategies could help?**

Say the pattern.

Find the core.

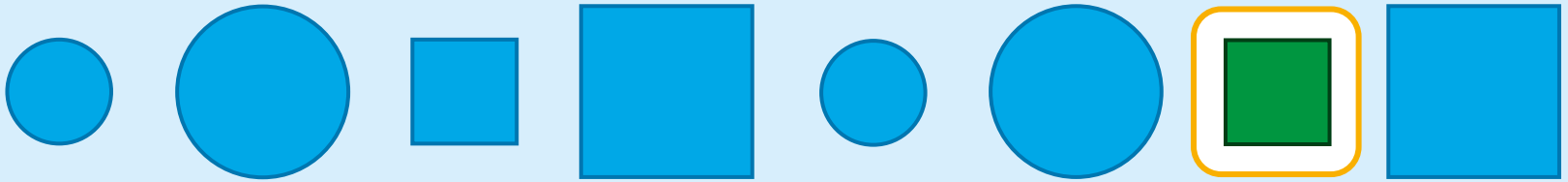
**Which strategy worked for you?**

Can you continue this pattern?



Which strategy will you use?

Which shape is missing from the pattern?



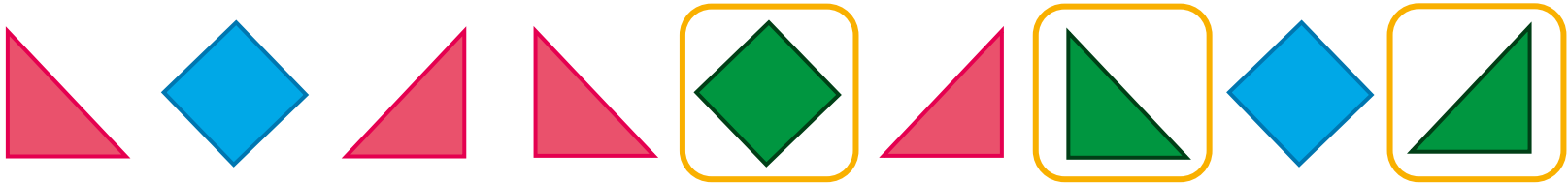
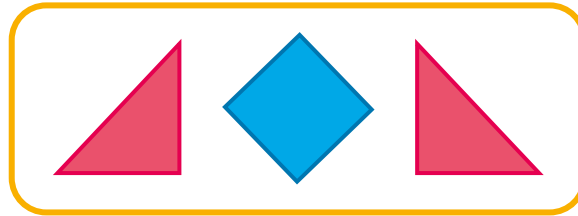
**What can you do to find out?**

Say the pattern.

Find the core.

## Complete the Pattern

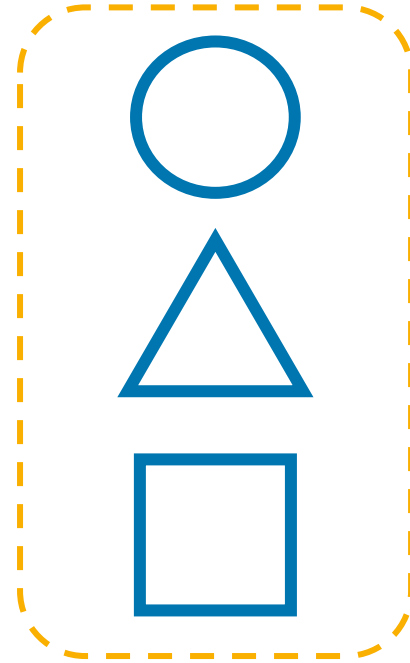
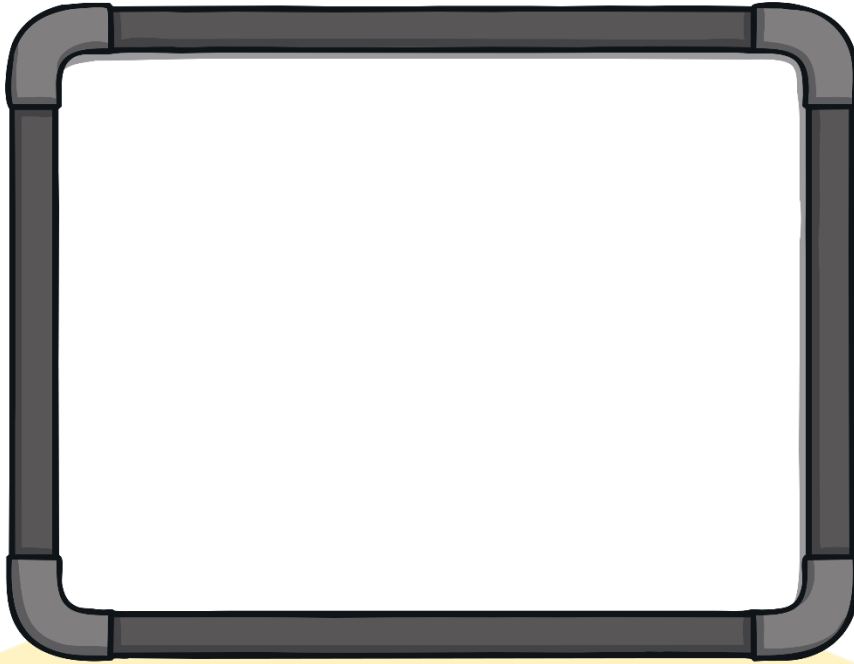
Where do these shapes belong in the pattern?



How did you know where to place each shape?



Use these shapes to make a pattern on your whiteboard.



Compare your patterns.

What's the same about them?

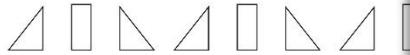
What's different?

# Make 2D Shape Patterns

## 2D Shape Patterns

To introduce 2D shape patterns.

Draw a ring around the core.



Continue the pattern.



Complete the pattern.



Complete the pattern.



Draw a pattern with three 2D shapes.

Use the same 2D shapes to make a new pattern.

Can you use the same 2D shapes to make another pattern?

## 2D Shape Patterns

To introduce 2D shape patterns.

Draw a ring around the core.



Draw the next shape.



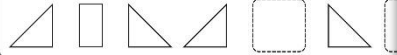
Continue the pattern.



Complete the pattern.



Complete the pattern.



Draw your own 2D shape pattern.

Use the same 2D shapes to make a new pattern.

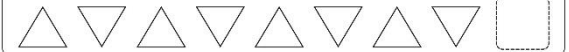
## 2D Shape Patterns

To introduce 2D shape patterns.

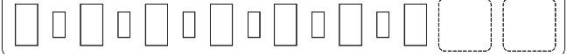
Draw a ring around the core.



Draw the next shape.



Continue the pattern.



Continue the pattern.



Complete the pattern.



Complete the pattern.



Draw your own 2D shape pattern.

## Diving into Mastery

Dive in by completing your own activity!



**Make 2D Shape Patterns**

Draw a ring around the core.

□ ♦ ▮ □ ♦ ▮ □

Continue the pattern.

● ■ ▲ ● □ □ □ □

Complete the pattern.

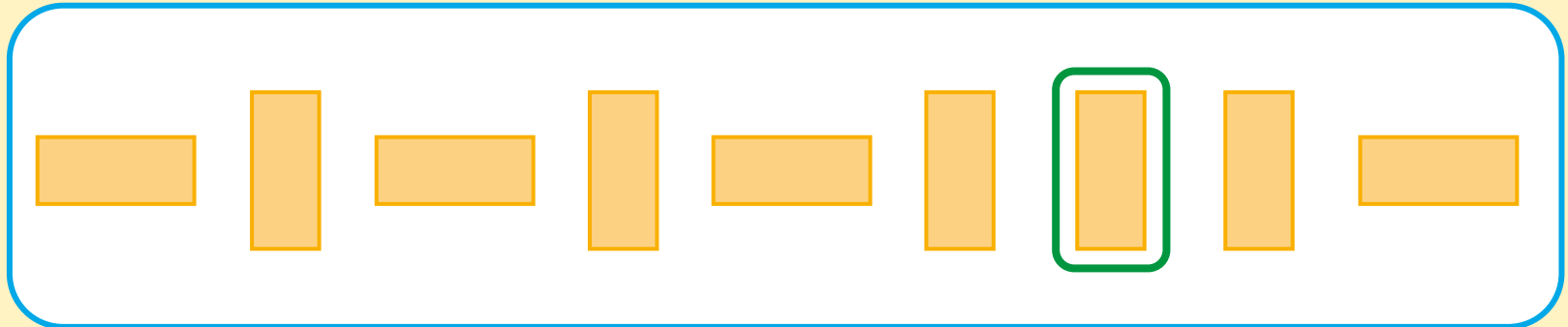
● ● ▲ ● □ ▲ □ ● □ ●

Use these shapes to make a pattern. ● ■ ▲

Can you make a new pattern with the same shapes?



Are these patterns correct?



Can you spot the mistakes?

What would you do to correct them?



## Aim



- To introduce 2D shape patterns.

## Success Criteria

- I can identify the core of 2D shape patterns.
- I can continue 2D shape patterns.
- I can complete 2D shape patterns.
- I can create 2D shape patterns.

The Twinkl logo, featuring the word "twinkl" in a lowercase, rounded, sans-serif font. The text is white and is contained within a white, cloud-like shape with a soft, irregular border. The logo is centered on a background of various geometric shapes in shades of yellow and orange.