



Maths

Properties of Shapes

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.

Understanding Length and Height (1): Height Comparison
This lesson teaches children to compare the heights of familiar objects, such as tall, short, taller, shorter, tallest and shortest. The lesson includes presentation, activity sheets and our fantastic Diving in Mastery cards that support children to understand the concepts of height.

NC Statement: Compare, describe and solve practical problems for lengths and heights.
Lesson Aim: To compare the heights of objects.

Measuring Length and Height (1): Measure Height Using Non-Standard Units
Allow children to explore measuring the height of objects using non-standard units. The lesson includes presentation, activity sheets and our fantastic Diving in Mastery cards that support children to understand the concepts of height.

NC Statement: Measure and begin to record lengths and heights.
Lesson Aim: To measure height using non-standard units.

Understanding Length and Height (2): Length Comparisons
This lesson teaches children to compare the length of various objects, such as long, longer, longest, short, shorter and shortest. The lesson includes presentation, activity sheets and our fantastic Diving in Mastery cards that support children to understand the concepts of length.

NC Statement: Compare, describe and solve practical problems for lengths and heights.
Lesson Aim: To compare the length of objects.

Introduction

This unit will introduce children to the concept of measurement in different areas, such as length and height, capacity, weight, money and time. Children learn the vocabulary they will need to compare and describe measurement and develop their reasoning skills through solving practical problems. The children explore both non-standard and standard units of measure and apply their skills of measuring and recording in a wide range of real-life contexts. They also learn to sequence events in chronological order, use language related to dates and begin to tell the time on an analogue clock.

Assessment Statements

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

- describe and compare lengths, heights, capacities, weights and times using simple vocabulary;
- measure length, heights, capacities, weights and using non-standard units;
- recognise some coins and notes;
- put two or three simple events in chronological order;
- recognise and use the names of the days of the week and know some months of the year;
- tell the time to the hour on an analogue clock and draw the hands;
- reason about measurements to solve simple practical problems.

Children working at the expected level will be able to:

- describe and compare lengths, heights, capacities, weights and times using mathematical vocabulary;
- measure length, heights, capacities, weights and times using standard and non-standard units;
- know the value of coins and notes;
- sequence familiar events in chronological order;
- order the days of the week and months of the year;
- tell the time to the hour and half past the hour on an analogue clock;
- draw the hands on an analogue clock face to the hour and half past the hour;
- understand fully-numbered scales, such as measuring jugs;
- reason about measurements to solve practical problems.

Measurement
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 each of the small steps on the White Rose Maths scheme of learning.

Yearly Overview

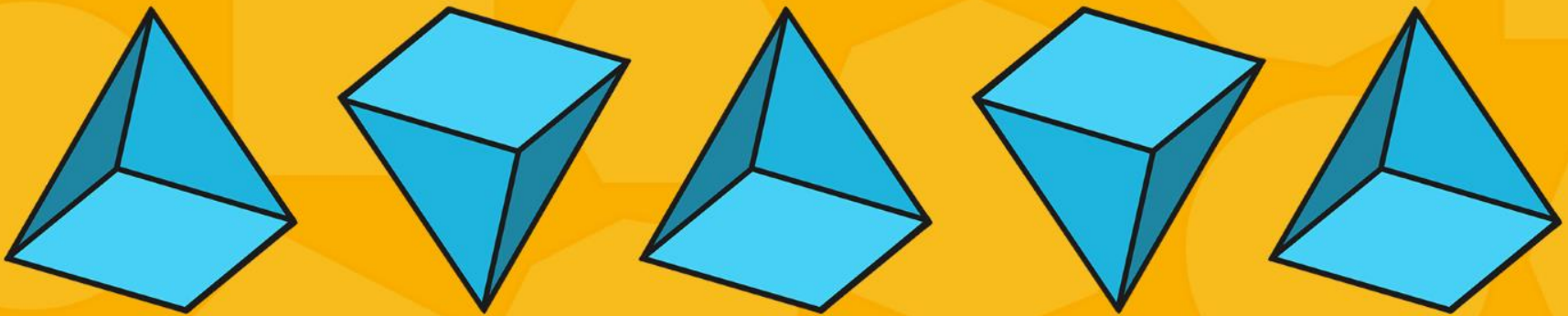
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)		Number: Addition and Subtraction (within 10)			Geometry: Shape		Number: Place Value (within 20)		Consolidation		
Spring	Number: Addition and Subtraction (within 20)			Number: 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 Direction	Number: Place Value (within 100)		Measurement: Money	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 3D Shape Patterns



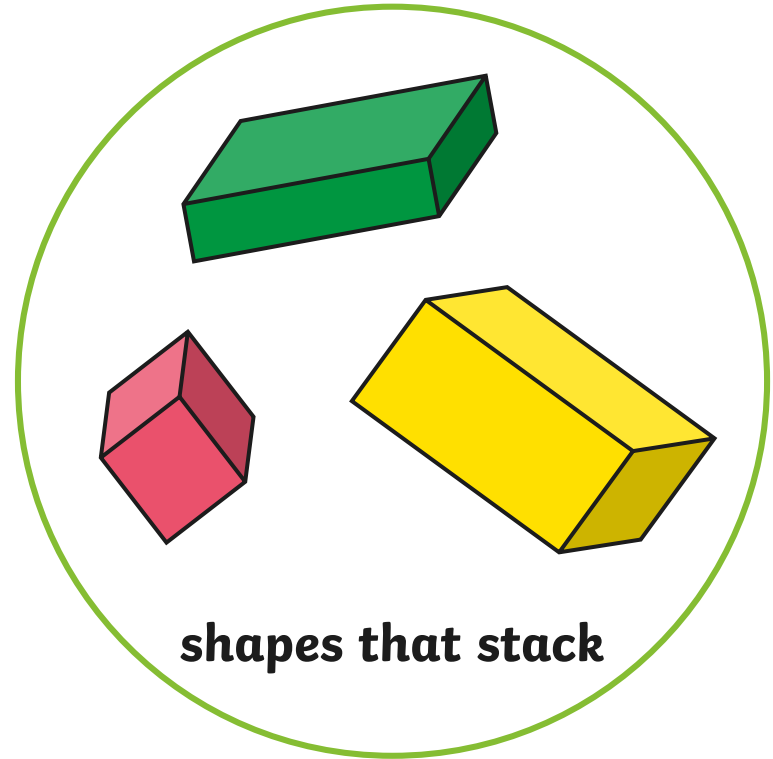
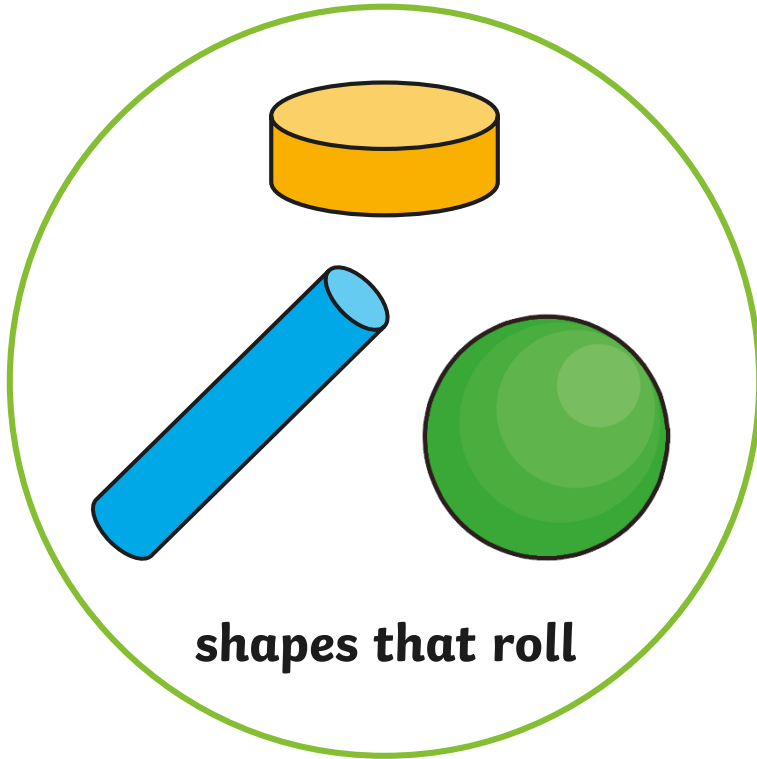
Aim

- To introduce 3D shape patterns.

Success Criteria

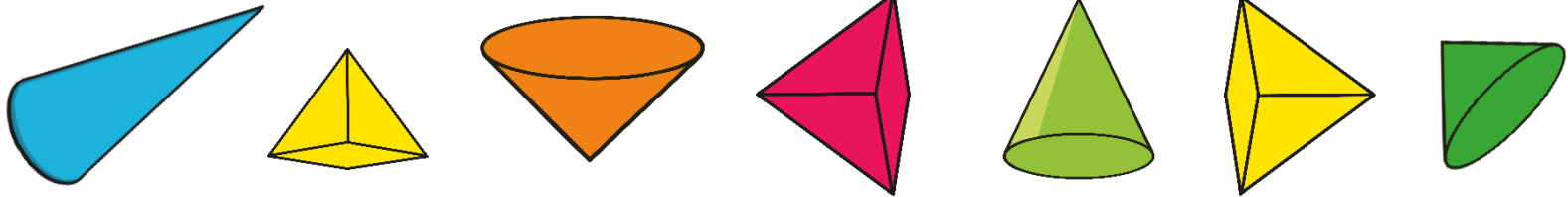
- I can identify the core of 3D shape patterns.
- I can continue 3D shape patterns.
- I can complete 3D shape patterns.
- I can create 3D shape patterns.

How have these shapes been sorted?



Can you see anything in the classroom that you could add to each group?

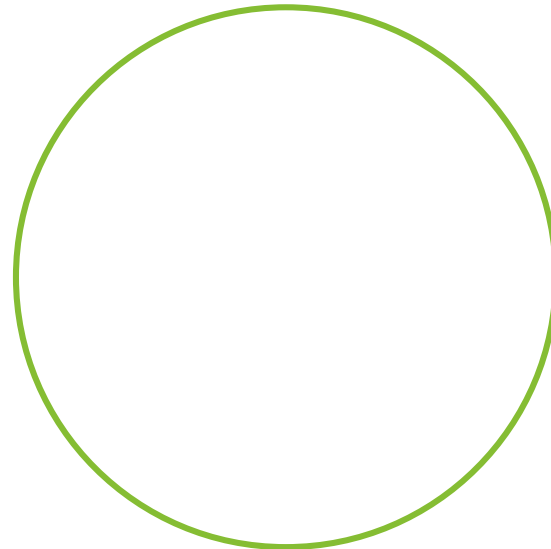
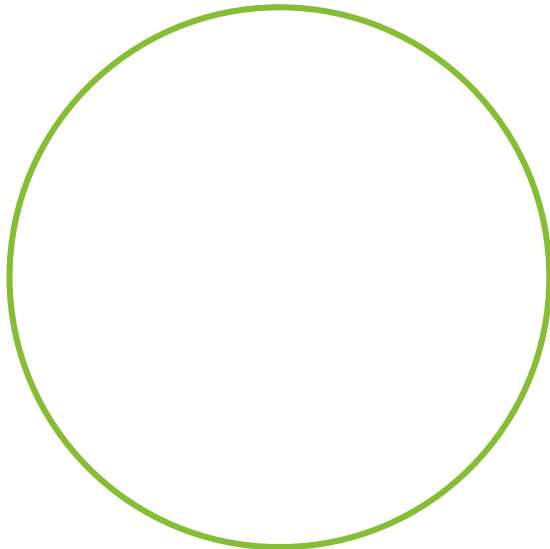
Can you sort these shapes into 2 groups?



What can you tell me about each group?

cones

pyramids

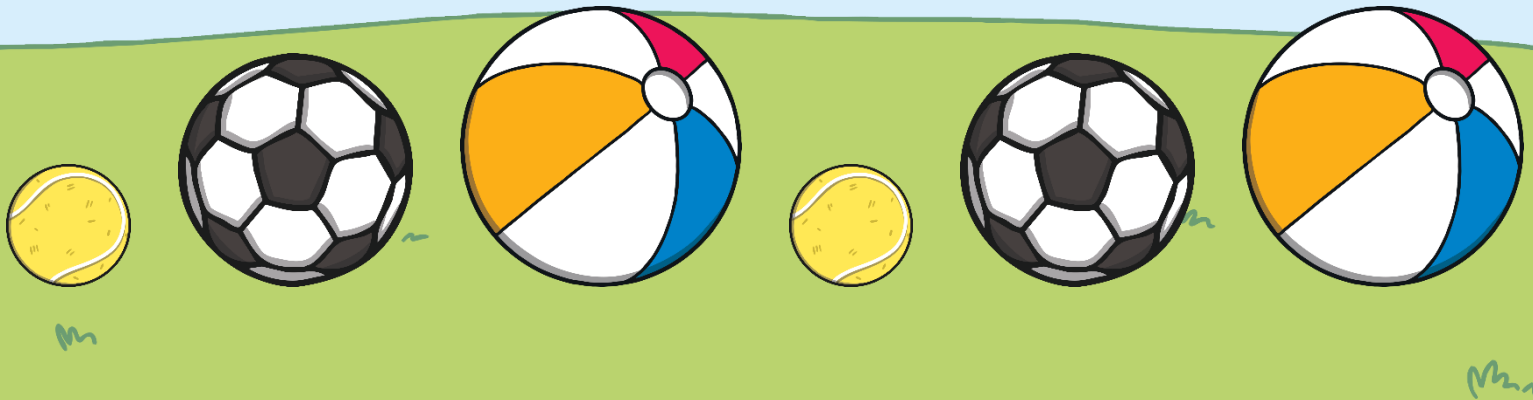


Can you see the pattern made by these objects?



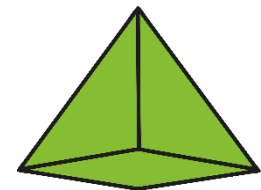
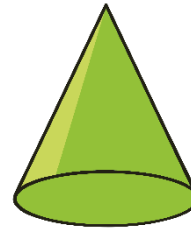
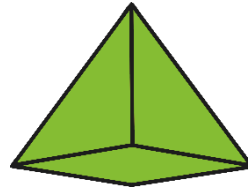
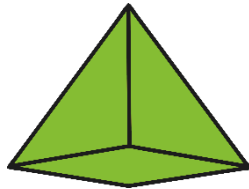
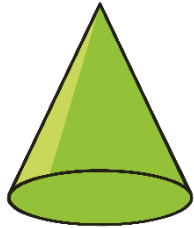
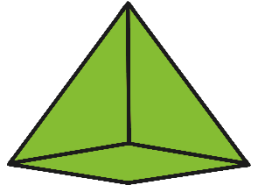
What can you tell me about them?

Can you see the pattern made by these objects?



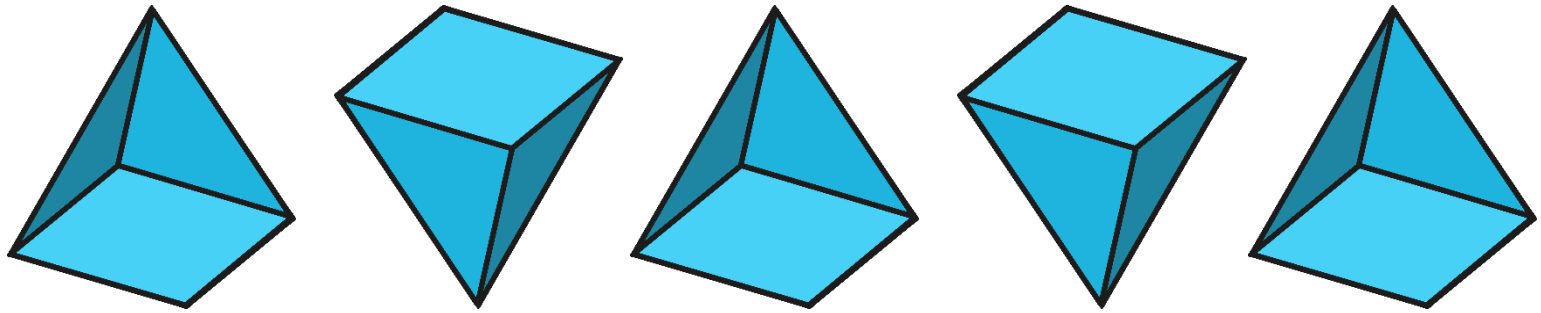
What can you tell me about them?

What can you tell me about this pattern?



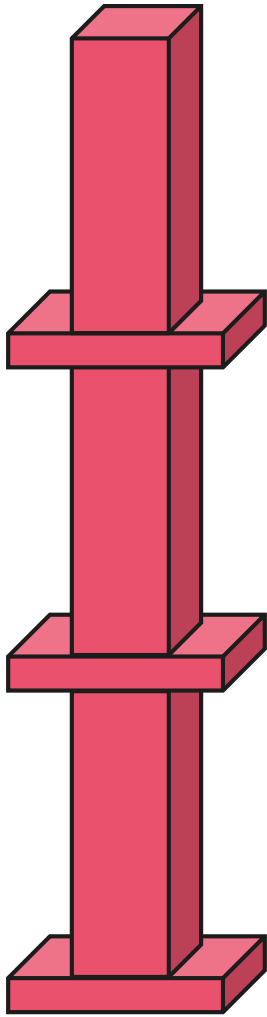
What's the same about the shapes in this pattern?

The shapes are all pyramids.



What's different?

The pyramids are facing different directions.



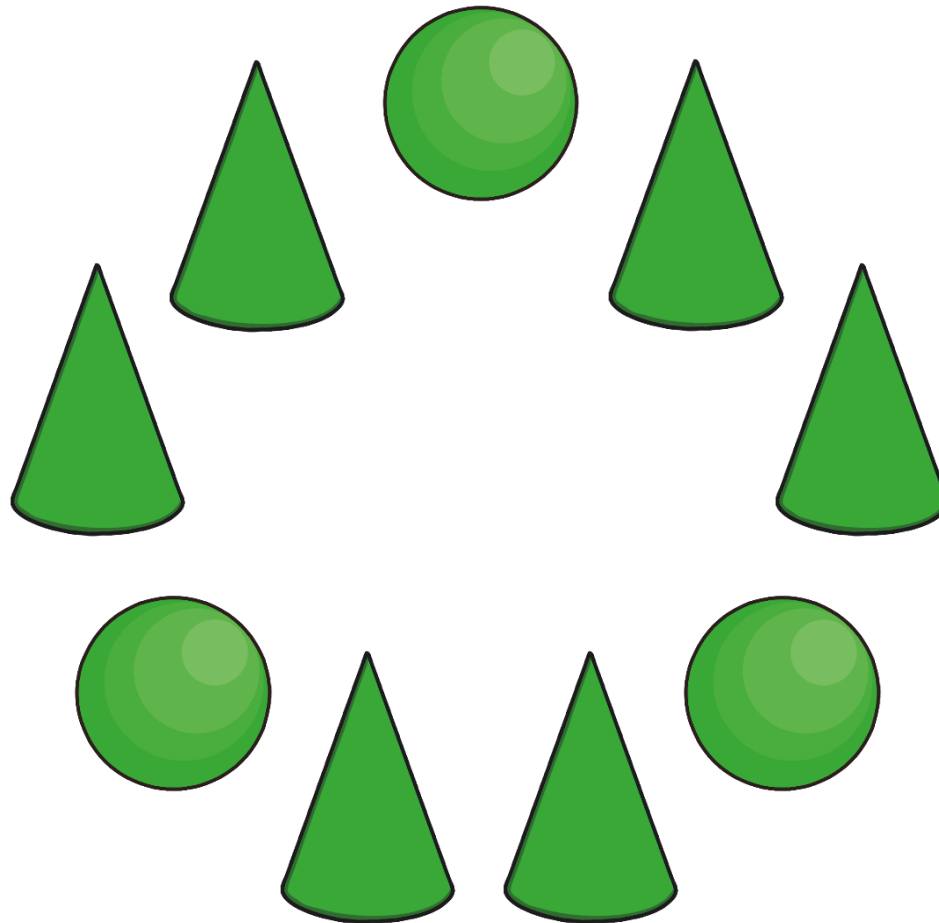
What's the same about the shapes in this pattern?

The shapes are all cuboids.

What's different?

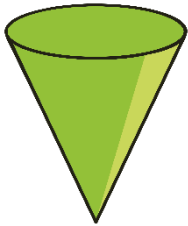
The cuboids are different sizes.

What do you notice about this pattern?

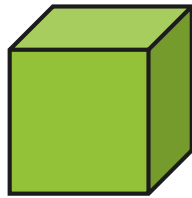


Say the name of each shape as it appears.

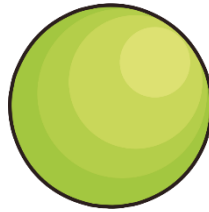
cone



cube



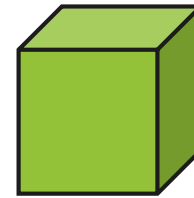
sphere



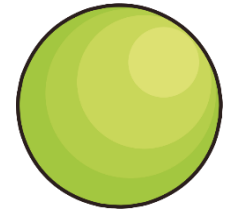
cone



cube



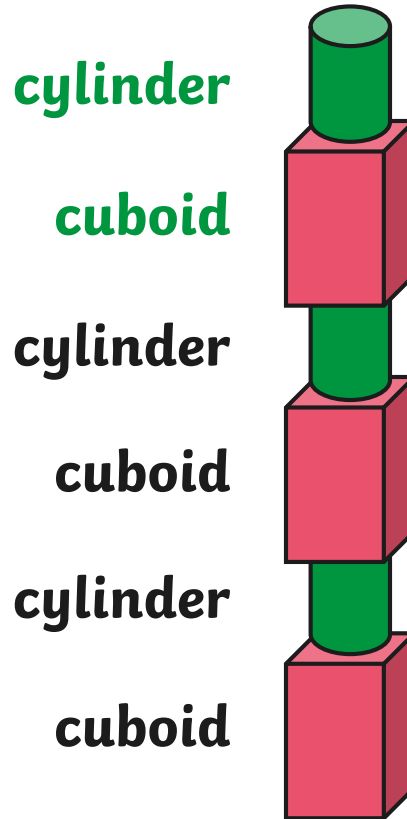
sphere



What would the next shape be?

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

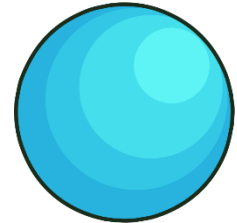
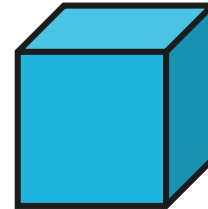
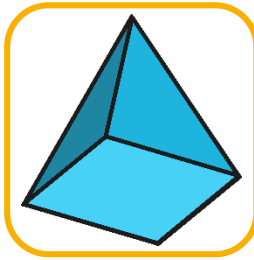
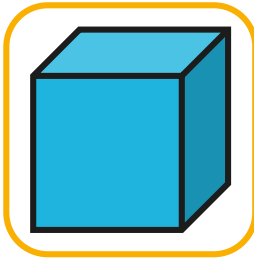
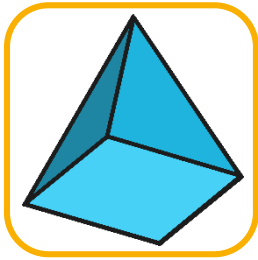
Say the name of each shape as the model is built.



What would the next 2 shapes be?

Which shape is **before** the cube?

a pyramid



Which shape is **after** the cube?

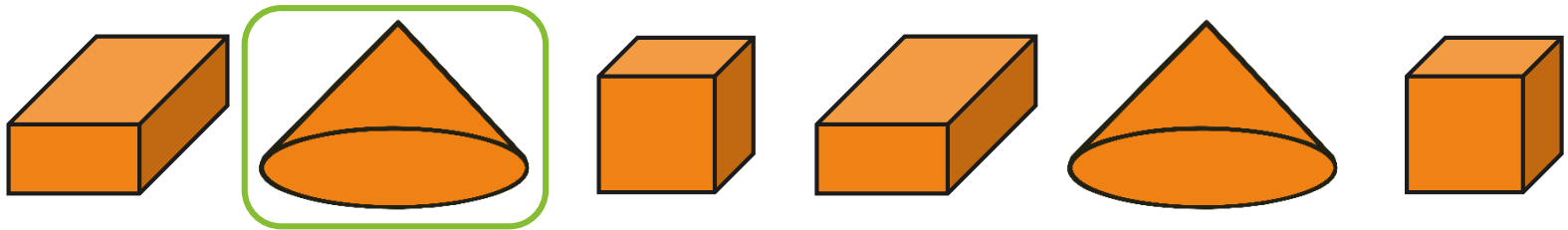
a sphere

Find the Shape

Take turns with a talk partner to give clues about a shape.
Use these words to help you.

before

after



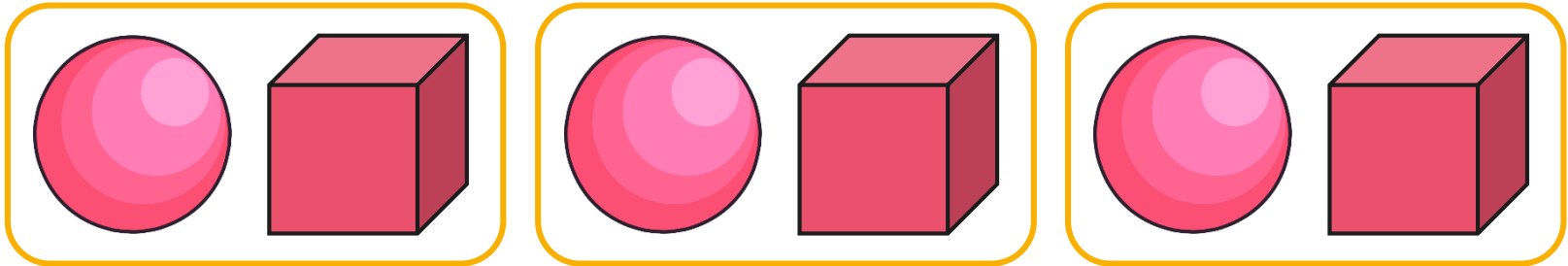
Which shape is
before the cube?

A cone.



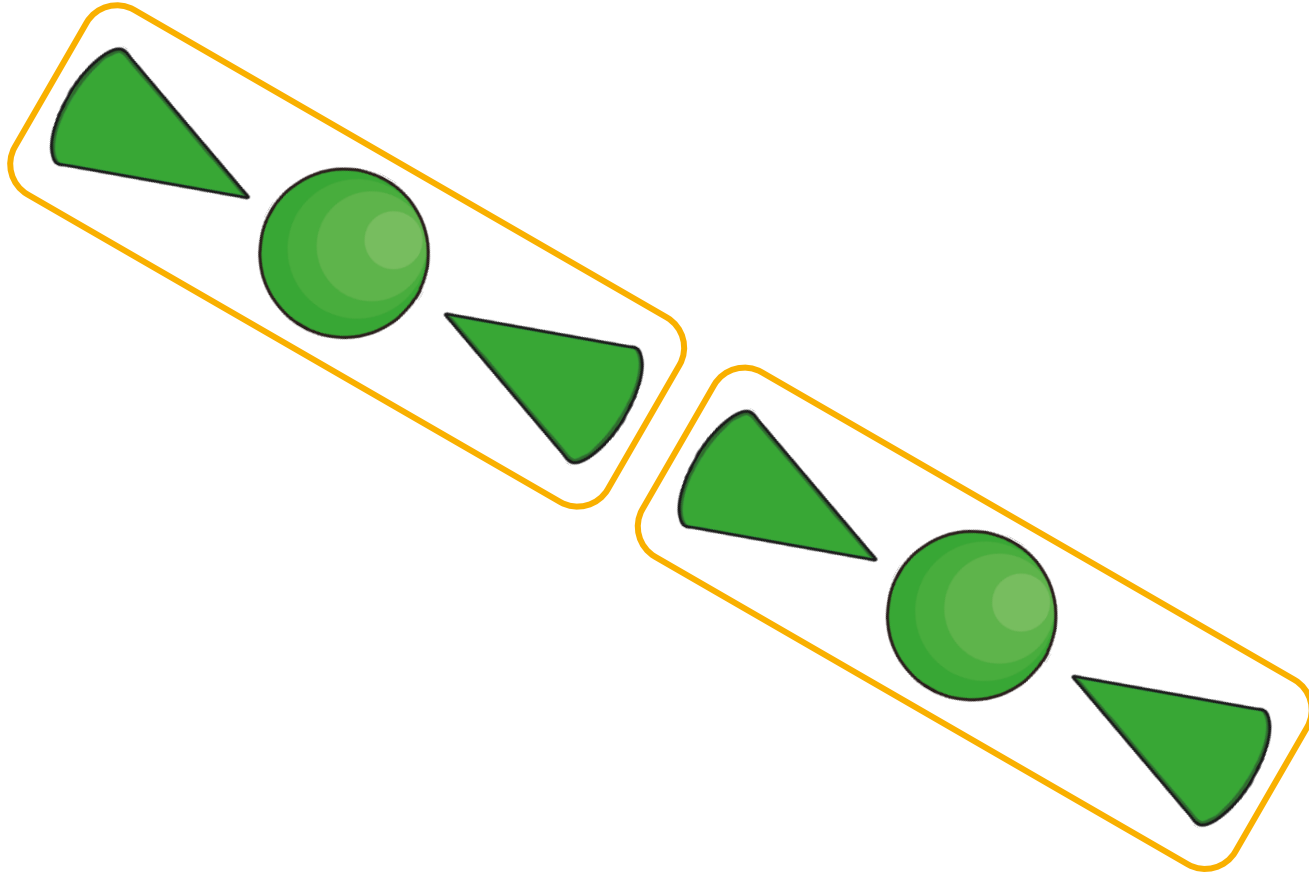
What do we call the repeating part of a pattern?

■ ■ ■ **The core.** ■ ■ ■



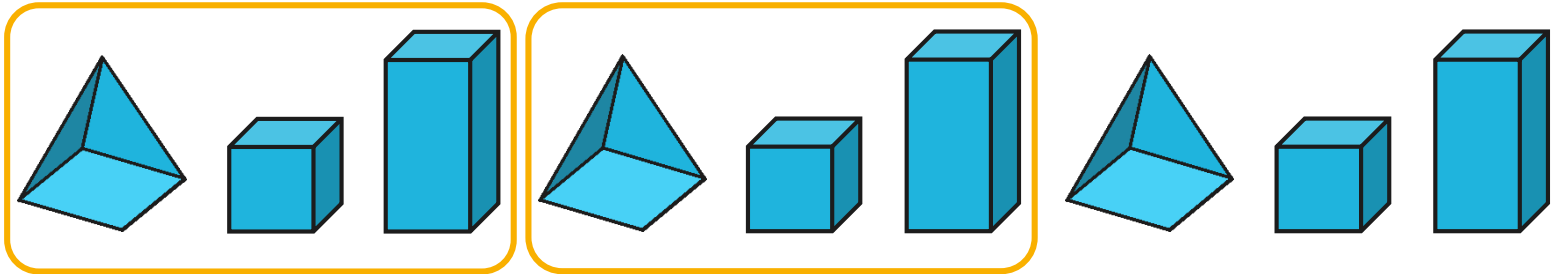
What can you tell me about
the core of this pattern?

Can you find the core of this pattern?



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

Can you continue this pattern?



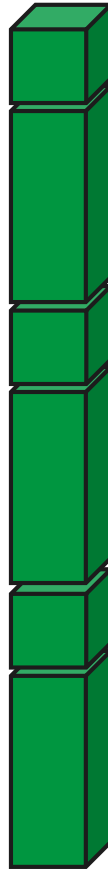
What strategies could help?

- Say the pattern.
- Find the core.

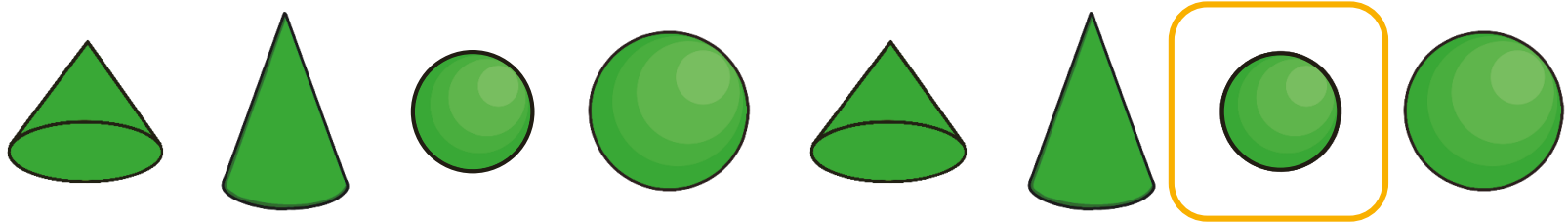
Which strategy worked for you?

Can you continue this pattern?

Which strategy will you use?



Which shape is missing from the pattern?

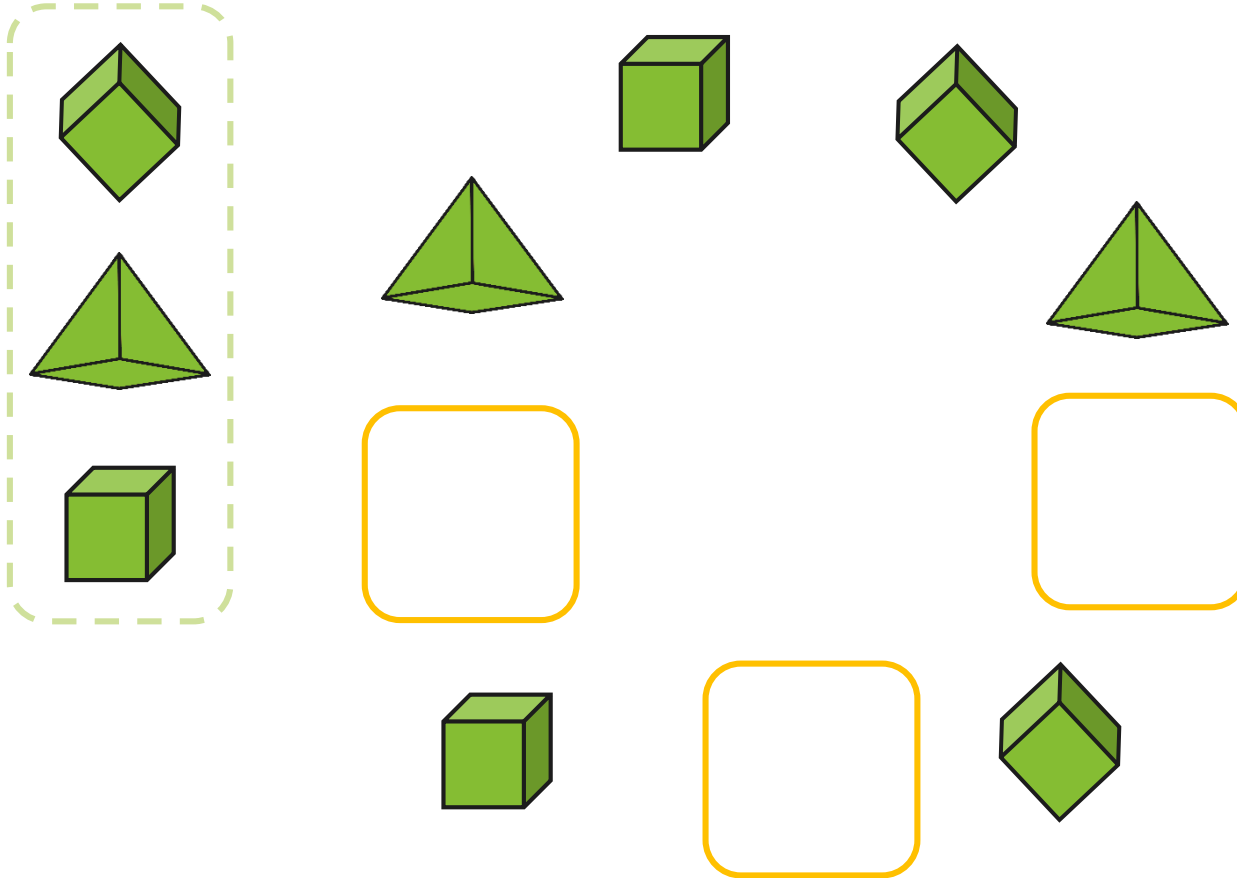


What can you do to find out?

- Say the pattern.
- Find the core.

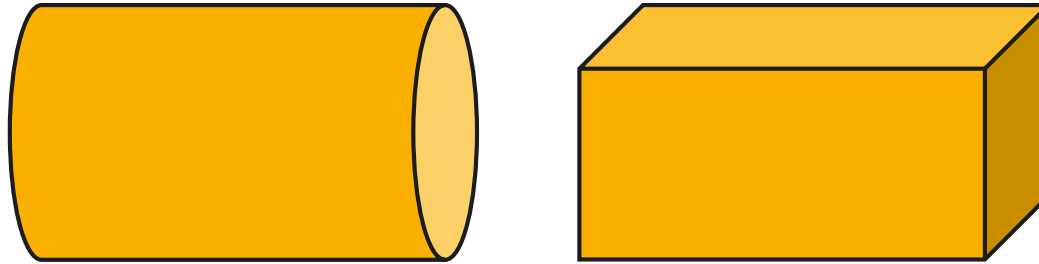
Complete the Pattern

Where do these shapes belong in the pattern?



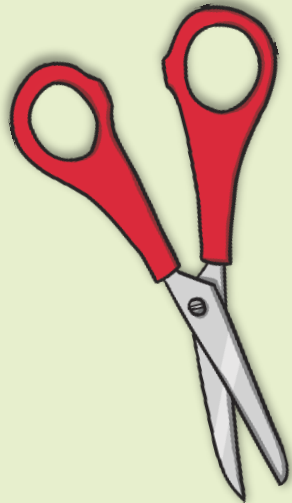
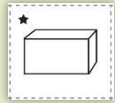
How did you know where to place each shape?

Use these shapes to make a pattern.



Compare your patterns.

- What's the same about them?
- What's different?



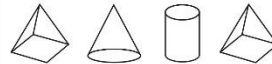
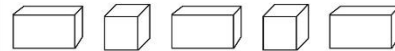
3D Shape Patterns

To introduce 3D shape patterns.

Draw a ring around the core.



Cut and stick the 3D shape pictures to continue the patterns.

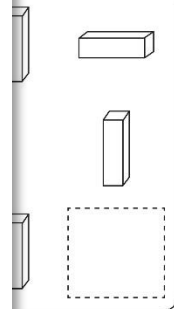


Cut and stick the 3D shape pictures to complete the patterns.



3D Shape Patterns

Patterns.



3D shape pattern.

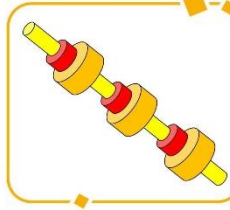
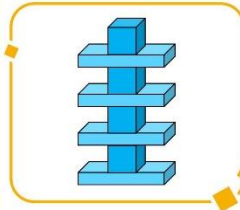
Diving into Mastery

Dive in by completing your own activity!



Make 3D Shape Patterns

Draw a ring around the core of each pattern.



Continue the pattern.



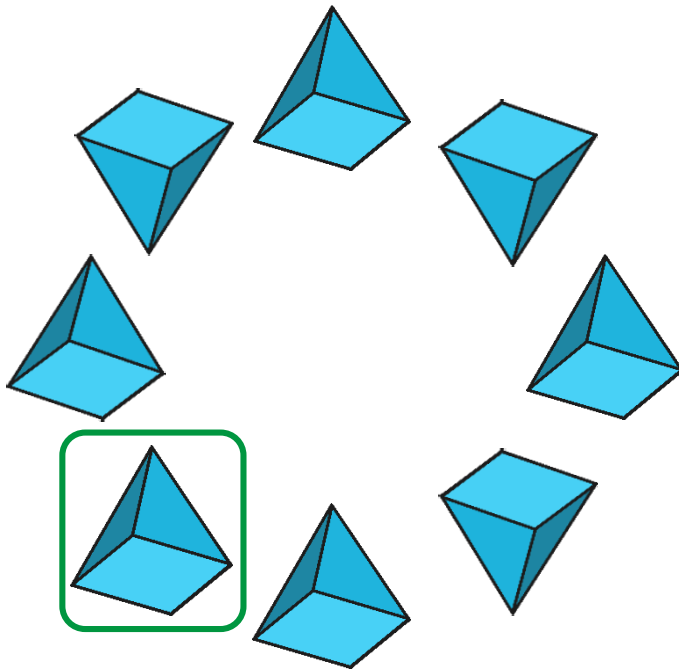
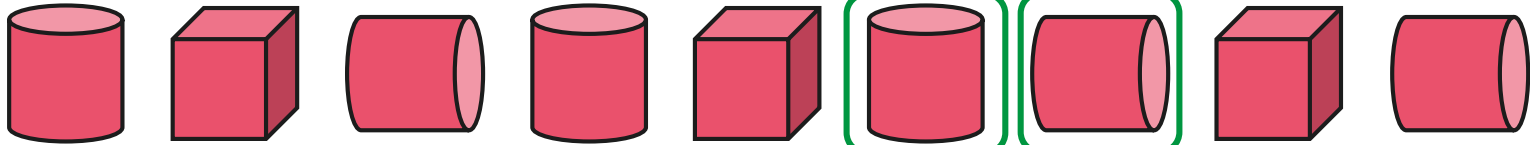
Complete the pattern.



Pick three 3D shapes.

How many different core patterns can you make?

Are these patterns correct?



Can you spot the mistakes?

What would you do to correct them?

Aim



- To introduce 3D shape patterns.

Success Criteria

- I can identify the core of 3D shape patterns.
- I can continue 3D shape patterns.
- I can complete 3D shape patterns.
- I can create 3D shape patterns.

