

# Homework/Extension

## Step 12: Make Patterns with 3D Shapes

### National Curriculum Objectives:

Mathematics Year 2: (2G1b) [Compare and sort common 3-D shapes and everyday objects](#)

Mathematics Year 2: (2G2b) [Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Circle the shapes that will not be used to continue a pattern using 2 different 3D shapes, all with the same orientation and size. Perspective lines visible on all shapes.

**Expected** Circle the shapes that will not be used to continue a pattern using 3 different 3D shapes, some patterns including the same shape in different orientations. All shapes presented in different orientations and sizes. Perspective lines visible on some shapes.

**Greater Depth** Circle the shapes that will not be used to continue a pattern using 3 different 3D shapes, patterns include the same shapes in different orientations. No perspective lines visible on shapes, with the use of some real-life objects.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Match the shape that will continue the pattern using 2 different 3D shapes, all with the same orientation and size. Perspective lines visible on all shapes.

**Expected** Match the shape that will continue the pattern using 3 different 3D shapes, some patterns including the same shape in different orientations. All shapes presented in different orientations and sizes. Perspective lines visible on some shapes.

**Greater Depth** Match the shape that will continue the pattern using 3 different 3D shapes, patterns include the same shapes in different orientations. No perspective lines visible on shapes, with the use of some real-life objects.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Using all the cards make 2 different patterns. All shapes with the same orientation and size. Perspective lines visible on all shapes.

**Expected** Using all the cards make 2 different patterns. All shapes presented in different orientations and sizes. Perspective lines visible on some shapes.

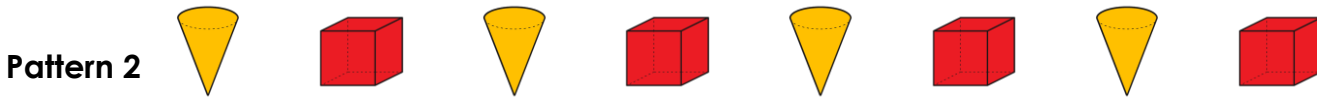
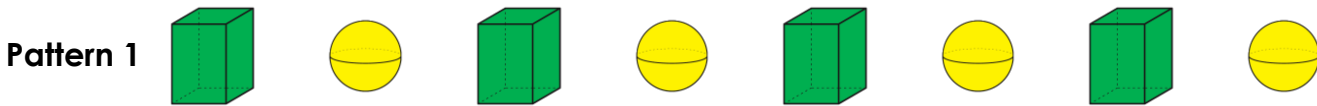
**Greater Depth** Using all the cards make 3 different patterns. All shapes presented in different orientations and sizes. No perspective lines visible on shapes, with some use of real-life objects.

More [Year 2 Properties of Shape](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

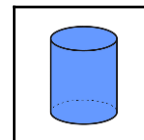
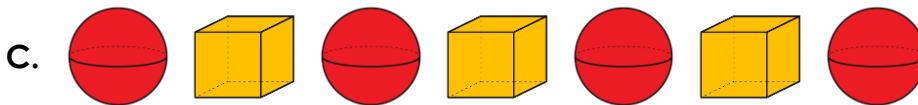
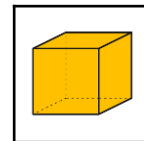
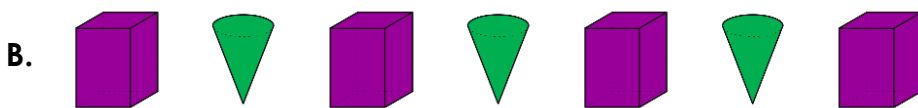
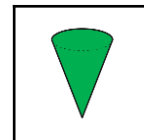
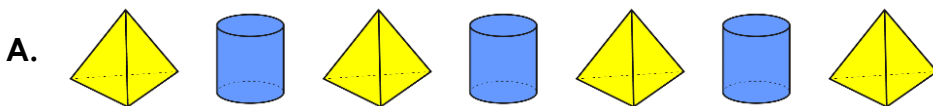
# Make Patterns with 3D Shapes

1. Circle the shapes that will not be used to continue the patterns below.



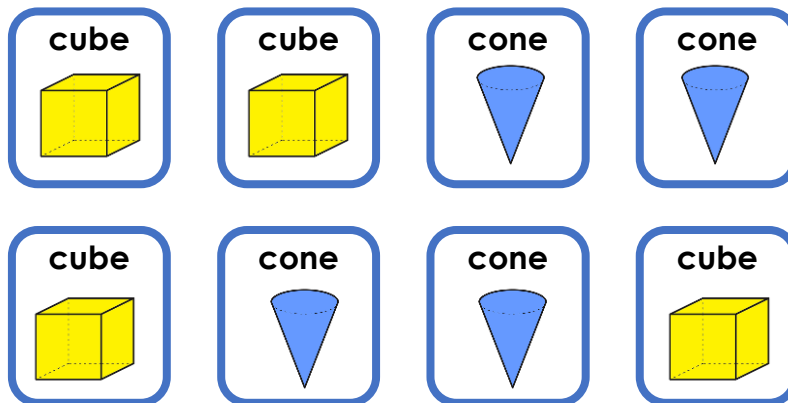
VF  
HW/Ext

2. What is the next shape in the pattern? Draw a line from the pattern to the next shape.



VF  
HW/Ext

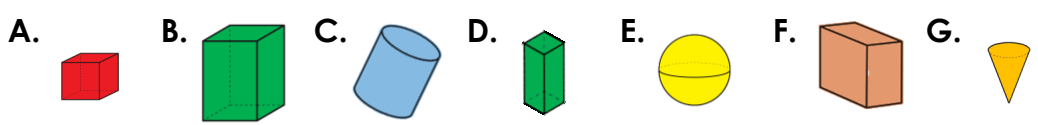
3. Using all the cards, create 2 different patterns.



RPS  
HW/Ext

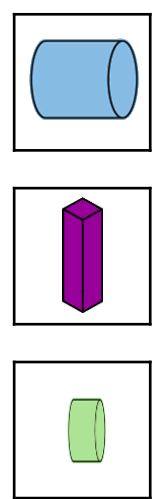
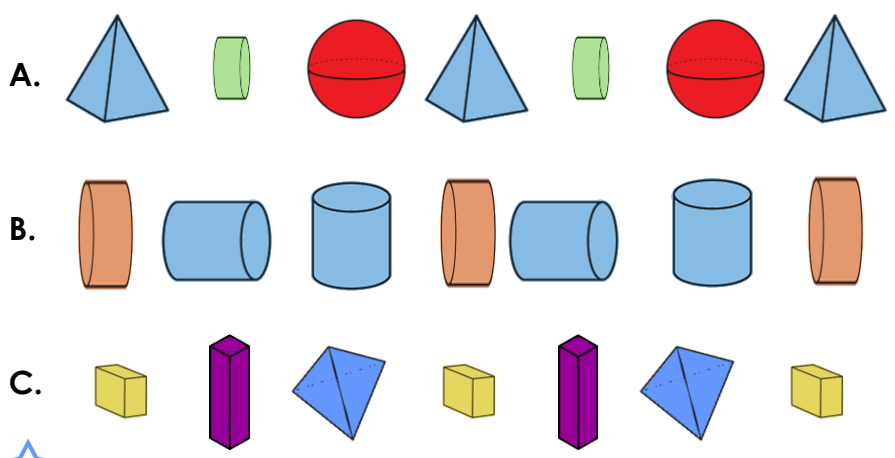
# Make Patterns with 3D Shapes

4. Circle the shapes that will not be used to continue the patterns below.



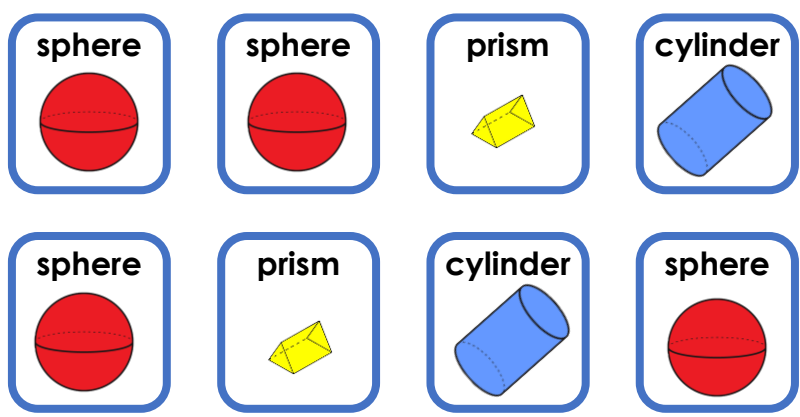
VF  
HW/Ext

5. What is the next shape in the pattern? Draw a line from the pattern to the next shape.



VF  
HW/Ext

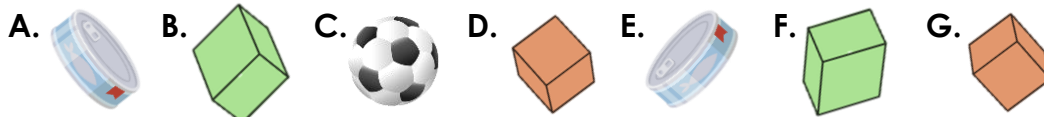
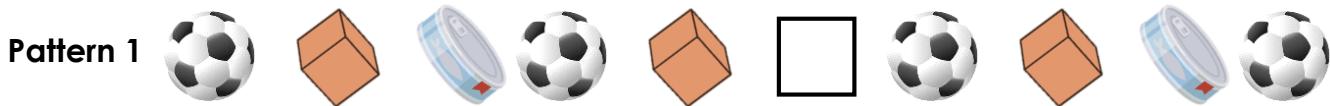
6. Using all the cards, create 2 different patterns.



RPS  
HW/Ext

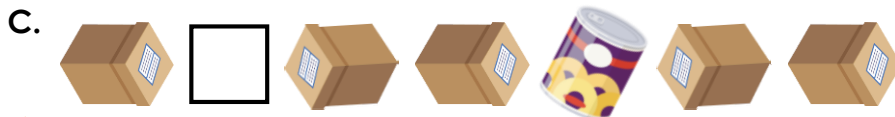
# Make Patterns with 3D Shapes

7. Circle the shapes that will not be used to complete the patterns below.



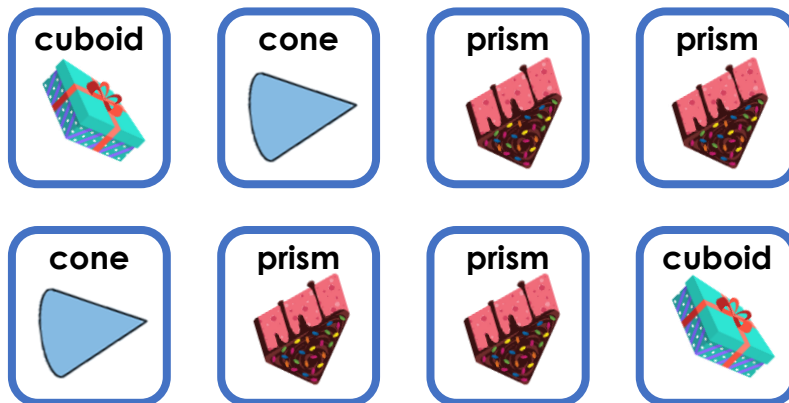
VF  
HW/Ext

8. What is the missing shape in the pattern? Write the number of the missing shape in the empty box to complete the pattern.



VF  
HW/Ext

9. Using all the cards, create 2 different patterns.



RPS  
HW/Ext

# Homework/Extension

## Make Patterns with 3D Shapes

### Developing

1. **D, E and G**
2. **A = cylinder, B = cone, C = cube**
3. **Various answers, for example: cube, cone, cube, cone, cube, cone, cube, cone; cone, cube, cone, cube, cone, cube, cone, cube**

### Expected

4. **B and F**
5. **A = small cylinder, B = large cylinder, C = cuboid**
6. **Various answers, for example: sphere, sphere, prism, cylinder, sphere, sphere, prism, cylinder; cylinder, sphere, prism, sphere, cylinder, sphere, prism, sphere**

### Greater Depth

7. **B, C, D, F and G**
8. **A = 2, B = 3, C = 1**
9. **Various answers, for example: cuboid, prism, prism, cone, cuboid, prism, prism, cone; cone, prism, cuboid, prism, cone, prism, cuboid, prism**