

4a

Investigating cuboids

- Carefully open up each box along the glued seams so that the cardboard lies flat on the table.
- Look at each of these opened cuboids. These are called 'nets'. What do you notice?
- How many faces does each box have? What shape are these faces?
- Are the faces always joined up in the same arrangement?
- Find different ways of arranging the faces on the opened net so that they still create a cuboid when they are folded up again.
- How would the nets of a cube be different from a cuboid?



You need:

- empty boxes of all sizes (from cereals, biscuits, toothpaste ...)

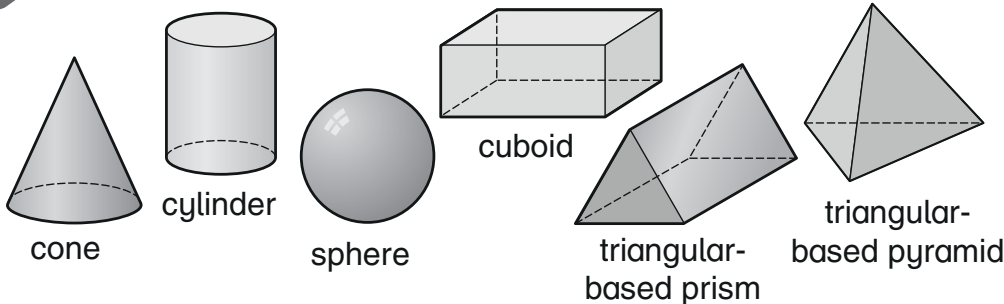


Please help your child by reading the instructions and doing the activity together.

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4a

Searching for 3-D shapes



You need:

- pencil and paper
- a grownup

- You are going to look for these 6 shapes.
- Make yourself a reminder sheet of these 3-D shapes.
- Look around the house for objects that are these shapes.
 - ▶ Look in food cupboards at boxes, tins and packaging.
 - ▶ Look in bedrooms at bottles, creams and containers.
 - ▶ Look in play areas at toys.
- Which shapes are easy to find? Which are harder? Why?
- Think how products are moved from a warehouse to the shop. Would it be sensible to package cereals and baked beans in spherical shaped containers?

Explain your thinking to a grownup.

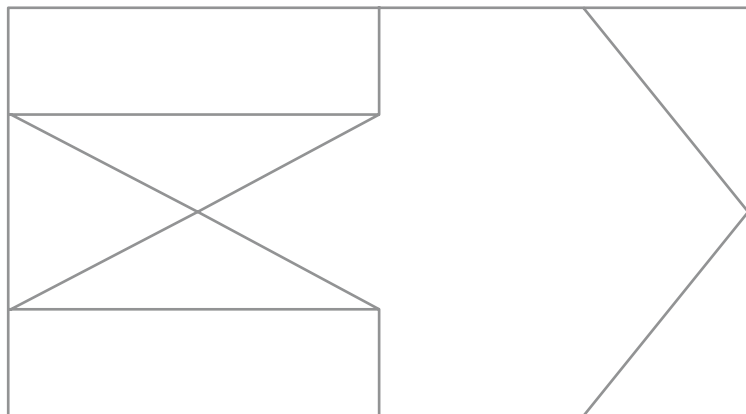


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4b

Identifying angles

- Design your own flag. Here is an example:



You need:

- ruler
- 3 coloured pencils
- Internet access or reference books
- pencil and paper

- Make a right angle tester from the corner of a piece of A4 paper.
- Use your right angle tester to find the right angles in your flag design. Colour them in the first colour.
- Then colour all the angles **less** than a right angle in a second colour.
- Colour all the angles **more** than a right angle in a third colour.
- Which type of angle are there most of? Is there a reason for this?
- Have a look at flags from different countries on the Internet or in books.
- Search for right angles.



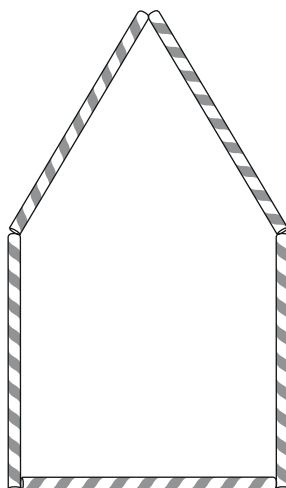
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4b

Making 2-D shapes

- Arrange the straws into a house shape like this.
- Draw a diagram of your shape.
- Use 3 different colours. Mark the right angles, angles greater than a right angle and angles smaller than a right angle.
- Now rearrange your 5 straws into a different shape.
- Again, draw a diagram and colour the different angles.
- Make 4 different shapes in total.
- Is it possible to make a shape with no right angles, 2 angles smaller than a right angle and 2 angles greater than a right angle?



You need:

- 5 drinking straws (or pencils all of the same length)
- ruler
- 3 coloured pencils
- pencil and paper



Please help your child by reading the instructions and doing the activity together.