

Understanding shape

Buildings

- Visualise common 2D shapes and 3D solids
- Identify shapes from pictures of them in different positions and orientations

What you need:

Twenty 3D solids, camera; 2D shapes

Children build a simple cottage or palace, using twenty 3D solids. Take photographs of the building from two or three different angles. Demolish the building and challenge children to rebuild it from the photographs.



Saving Snow White

- Follow and give instructions involving position, direction and movement
- Recognise and use whole, half and quarter turns, both clockwise and anticlockwise

What you need: 25 tiles, small-world objects

Lay out 25 tiles on the floor in a 5 by 5 array and put hazards on some of the tiles (slimy toad, pond, snake ...): this is the forest through which the prince is riding. But it is a foggy day, and the prince is struggling to reach Snow White without meeting any of the hazards. One child acts as Snow White, lying on the floor the other side of the array from the prince. Children guide the prince to Snow White, using the language of direction and turning.

Making it easier

Make a flat picture using 2D shapes

Making it harder

Children work in pairs with identical sets of shapes and a barrier between them. One child makes a cottage, describing at the same time how to build it to a friend who makes an identical one the other side of the barrier.

Making a cottage

- Visualise common 2D shapes and 3D solids
- Make and describe shapes, referring to their properties

What you need: A cube and a square-based pyramid

Children make a simple cottage shape using only two 3D solids: a cube and a square-based pyramid.

They work out how to make a net of the shape using ready-made shapes that easily slot into each other or squares and triangles cut from card. They test the net by folding it up to recreate a cottage, which they then decorate.



Magic mirror

- Identify reflective symmetry in patterns and 2D shapes and draw lines of symmetry in shapes

What you need: Resource sheet 2, flat or sticky shapes

Children decorate the frame of the magic mirror on resource sheet 2, using flat shapes or sticky shapes. The frame should be symmetrical. They draw a symmetrical face in the reflective part of the mirror.

Making it easier

Help children use simple language such as 'forward', 'backward', 'left' and 'right'.

Making it harder

Provide a drawing of the 5 by 5 array and ask children to write a set of instructions to guide the prince through the forest.

Making it easier

Help children analyse the shape and count how many squares and triangles they will need.

Making it harder

Challenge children to make a net for a larger cottage shape and describe what it will look like when folded up.

Making it easier

Provide just a few different kinds of shape in a limited palette of colours.

Making it harder

One child draws half a face in the 'mirror', and their friend completes it, making it symmetrical.