

**Preparation**

**Lesson 1:** prepare 'Visualised shapes' for display on interactive whiteboard; copy '2D shapes – polygons', one per child

**Lesson 2:** prepare 'Visualised shapes' for display on interactive whiteboard; copy '2D shapes – polygons', one per child

**Lesson 3:** prepare 'Carroll diagrams' for display on interactive whiteboard; copy '2D shapes – polygons', one per pair

**Lesson 4:** copy 'Reflections', one per child

**Lesson 5:** copy 'Visualised shapes', one per pair, and prepare the sheet for display on interactive whiteboard

**You will need****Photocopiable sheets**

'Reflections'

**General resources**

'Visualised shapes'; '2D shapes – polygons'; 'Carroll diagrams'; interactive activity 'Shape shifting'; interactive teaching resource 'Reflection grid'

**Equipment**

Individual whiteboards; mirrors or semi-transparent reflective materials; tracing paper; large sheets of paper; scissors; glue; rectangular paper; equilateral triangle

**Further practice**

Prepare some shapes using the interactive teaching resource 'Reflection grid' to give children further practice of identifying or completing symmetrical shapes

**Oral and mental starters for week 5**

See bank of starters on pages 45, 86 and 126. Oral and mental starters are also on the CD-ROM.

**15** Twenty questions

**6** Fact practice (addition)

**7** Fact practice (subtraction)

**13** Targets

**Overview of progression**

During this week, the children will consolidate and extend their knowledge of the properties of 2D shapes, including lines of symmetry and regularity. Lesson 1 introduces regular shapes and children are asked to identify which polygons are regular and which are irregular. Lesson 2 explores lines of symmetry of shapes presented in different orientations. These ideas are developed further in the next lesson as children classify shapes according to properties including regularity and symmetry. In lesson 4 children are given opportunities to reflect shapes in a range of mirror lines and to complete symmetrical figures. The final lesson of the week draws together all the properties explored in problem-solving situations.

**Watch out for**

Some children find spatial topics more difficult than other children, particularly in relation to symmetry. Look out for children who merely want to replicate the same shape on the other side of the mirror line when reflecting, rather than drawing the reflected image. It is vital that children are given suitable reflecting equipment such as mirrors or semi-transparent reflective materials to enable them to check reflections.

**Creative context**

Link this shape work to art activities, including creating symmetrical patterns using colour and shapes.

**Vocabulary**

angles, decagon, heptagon, irregular, **line of symmetry**, octagon, pentagon, quadrilateral, rectangle, reflection, **regular polygon**, shape, sides, square, triangle