

Year Three and Four: Block B: Unit 2: Changing Shapes	
Learning Objectives	Resources
<p>Using and applying mathematics</p> <ul style="list-style-type: none"> Identify patterns and relationships involving numbers or shapes, and use these to solve problems (Year 3) Identify and use patterns, relationships and properties of numbers or shapes; investigate a statement involving numbers and test it with examples (Year 4) <p>Knowing and using number facts</p> <ul style="list-style-type: none"> Read and write proper fractions (e.g. $\frac{3}{7}$, $\frac{9}{10}$), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents (Year 3) <p>Shape and space</p> <ul style="list-style-type: none"> Relate 2-D shapes and 3-D solids to drawings of them; describe, visualise, classify, draw and make the shapes (Year 3) Draw polygons and classify them by identifying their properties, including their line symmetry (Year 4) Visualise 3-D objects from 2-D drawings; make nets of common solids (Year 4) 	<p>Mini-whiteboards 2D shapes Coloured gummed paper Scissors 100 number square Digit cards Flipchart Mirrors Coloured card</p>
	Vocabulary
	<p>Year 3 triangle, square, rectangle, quadrilateral, pentagon, hexagon, octagon, circle, semicircle, cube, cuboid, pyramid, cone, cylinder, prism, sphere, hemisphere, face, edge, vertex/vertices, surface, solid, side, straight, curved, diagram, right-angled</p> <p>Year 4 3-D, three-dimensional, 2-D, two-dimensional, net, construct, regular, irregular, concave, convex, symmetrical, line of symmetry, vertex, vertices, face, edge, polygon, equilateral triangle, isosceles triangle, quadrilateral, rectangle, square, oblong, hexagon, heptagon, octagon</p>
Success Criteria	Curriculum Links
<p>Year 3 I can draw pictures and make notes to help me solve a problem I can find $\frac{1}{2}$ and $\frac{1}{4}$ of different shapes I can recognise whether a 2-D shape is symmetrical or not and describe how I know I can reflect a shape when the mirror line is one of its sides</p>	<p>Art and Design – investigate 2D shapes and lines of symmetry used in works of art</p>
	ICT Activities
	<p>Graphics – draw examples of shapes with different lines of symmetry</p>

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	Mental/Oral Starter	Shared Learning	Independent and Group Tasks	Plenary
Monday	<p>Year 3 (working with the teacher)</p> <p>Draw part of a 2D shape on the board. Choose a child to come to the board to complete the shape. Ask the rest of the class to name the shape and to describe the shape's properties.</p> <p>Repeat by getting some children to draw parts of other shapes on the board for the rest of the group to name and identify the properties of the shapes.</p>	<p>Ask the children to try and spot examples of different shapes around the classroom. Get some children to call out the names of different shapes for the other children in the class to identify their location.</p> <p>Draw two different sized rectangles on the board. Establish with the class that they are the same shape. Ask the children to suggest how they could describe a rectangle to somebody who had not seen one before.</p> <p>Choose some children to come to the board to divide each of the shapes into two halves in different ways. Fold sugar paper rectangles to show how the halves of each shape are the same size.</p>	<p>Year 3 activities</p> <p>Core/Extension Provide the children with halves of different shapes cut from coloured gummed paper. Get the children to match up the halves of the shapes. Tell them to write a sentence describing the different shapes they have made.</p> <p>Support Provide the children with halves of different squares and rectangles cut from coloured gummed paper. Get the children to match up the halves of the shapes. Tell them to write a sentence describing the different shapes they have made.</p>	<p>Get some children to call out the names of different shapes for the rest of the class to identify in the classroom.</p>
	<p>Year 4 (working with the teaching assistant)</p> <p>Provide the children with a mini-whiteboard. Tell them to record on their boards different shapes that have four sides.</p> <p>Bring the group back together and get them to share some of the shapes that they have recorded. Discuss with the children the names and other properties of the shapes that they have drawn.</p>	<p>Draw other rectangles on the board and get some children to divide the shapes into two unequal parts.</p> <p>Draw some more rectangles on the board. Get the class to suggest other ways of dividing the rectangles into different numbers of parts. Tell the children that each part of the rectangle must be the same size. Get some children to come to the board to show how to divide the rectangles.</p>	<p>Year 4 activities</p> <p>Core/Extension Provide the children with quarters of different shapes cut from coloured gummed paper. Get the children to match up the quarters of the shapes. Tell them to write a sentence describing the different shapes they have made.</p> <p>Support Provide the children with halves of different squares and rectangles cut from coloured gummed paper. Get the children to match up the halves of the shapes. Tell them to write a sentence describing the different shapes they have made.</p>	