

GEOMETRY AND ART

Teaching notes

Lesson 2: SOLID SHAPES

8th session: 3-D shapes	
AIMS	<ul style="list-style-type: none"> ● To begin to name solid shapes and select a particular 3-D shape. ● To start identifying some features in 3-D shapes. ● To find similarities and differences between 3-D shapes and 2-D shapes. ● To classify shapes into 2-D/flat and 3-D/solid shapes.
RESOURCES	<ul style="list-style-type: none"> - A computer and a data projector for the power point presentation. - A selection of 2-D and 3-D shapes. - Felt-tip pens, crayons and worksheet - Supplementary material: (solid_shapes.ppt) (labels_classification_2d3d.pdf) (worksheet_imprints.pdf).
GROUPING	- Half group.
DESCRIPTION OF THE ACTIVITIES	<p>1st activity: Solid and flat shapes (solid_shapes.ppt)</p> <p>Watch the power point presentation to introduce the vocabulary related to 3-D shapes. Afterwards, use plastic 3-D shapes or similar to revisit the vocabulary. Add, one by one, all the flat shapes that children already know. Teacher takes them out form a feely bag as pupils answer the question: who remembers the name of a flat shape?.</p> <p>Classify the shapes in 2 trays: solid and flat shapes (labels_classification_2d3d.pdf). Then ask the children to find a pair of similar shapes from each</p>

	<p>tray. Help the children to recognise that the 2-D shapes are faces of the 3-D shapes.</p> <p>E.g.</p> <ul style="list-style-type: none"> - Demonstrate, by matching the 2-D shapes to the 3-D shape, that two of the faces of the cylinder are circles. - Demonstrate that the cube is made of 6 squares. - Demonstrate that the cuboid has 2 types of surfaces: squares and rectangles. <p>etc...</p> <p>2nd activity: The imprints of 3-D shapes (worksheet_imprints.pdf)</p> <p>Teacher chooses a solid shape and prints a face of the shape on a piece of flat plasticine. Before removing the solid shape, ask the children which shape do they think it is going to appear printed in the plasticine. Do the same with all the faces of the chosen shape.</p> <p>Afterwards, ask each child to choose a solid shape and trace all its faces in the worksheet (A3 paper). They have to write down the name of the solid shape and the names of the flat faces. It is also important to number all the faces to avoid repetition or omission. Finally, they can colour the shapes. (Cone use circular base only and sphere not appropriate for this activity).</p>
<p>LANGUAGE</p>	<p><i>Key vocabulary:</i></p> <ul style="list-style-type: none"> - Cube, cuboid, cylinder, sphere, cone and pyramid. - Square, triangle, circle and rectangle. <p><i>key phrases needed:</i></p> <ul style="list-style-type: none"> - Who can remember the name of a flat shape?. -Look for 2 similar shapes from each tray. <p>(the explanations given by the children will be in L1).</p> <ul style="list-style-type: none"> -Trace all the faces of the 3-D shape.
<p>SKILLS</p>	<p>Listening, speaking, classifying and matching.</p>