

Chairs - Forming, Manipulating and Transforming

Achievement Objective	Technological Knowledge - Technological Products - Level 4 <i>Understand that materials can be formed, manipulated, and/or transformed to enhance the fitness for purpose of a technological product</i>
Learning Intention	I am learning... that materials can be manipulated (shaped, cut, moulded, bent, carved etc) to the form required, and that joining and finishing can change the performance properties
Activity Instructions	Examining and comparing two similar products <ol style="list-style-type: none">1. Examine and describe the two products, list the materials used.2. Identify how the material(s) was shaped, suggest why this was done, does it enhance the chairs fitness for purpose?3. Describe/sketch how the material(s) are joined,4. Identify how, the technological products fitness for purpose, was enhanced by its finish.5. Use this knowledge to justify your chosen methods for shaping, joining and finishing your design
Teacher Notes	

Chairs



What material(s) have been used



Describe how the materials have been manipulated/shaped

Identify/describe the joining processes

Identify/describe the finishing processes

How did the above enhance the products fitness for purpose?

ANSWERS...

<p>Chairs</p>		
<p>What material(s) have been used and why</p>	<p>Wood /glue Traditional use of materials, indoor furniture and is pleasing to the eye. Long lasting, durable</p>	<p>Resin/Polythene plastic. Light , cheap, waterproof, stackable, easy maintenance. They are sturdy. They are weatherproof. They are cheap. If one blows away in a storm, you are likely to find it still in one piece next door.</p>
<p>Describe how the materials have been manipulated/shaped</p>	<p>Steaming process to shape the wood Legs turned on the lathe Seat shaped to fit bottoms!</p>	<p>Plastic melted, coloured dyes added than Injection moulded</p>
<p>Identify/describe the Joining processes</p>	<p>Bars and legs plugged into holes and glued</p>	<p>Continuous one piece moulding</p>
<p>Identify/describe the finishing processes</p>	<p>Sanding, coloured lacquer or varnish or polish</p>	<p>Plastic flashings removed and injection stem. Choice of colours</p>
<p>How did these enhance the products fitness for purpose?</p>	<p>Think about Indoor use</p>	<p>Think about Outdoor use Negatives: “non-biodegradable and made out a fossil fuels. They make horrible noises when moved.. If you ever do something to cause one of the legs to bend too much, the structural integrity is gone and the chair becomes a veritable death trap. They blow away in strong winds....”</p>