

OBHS Core Questions:

Subject: Design & Technology

Year and Term: Year 11 Autumn term

Topic: Specialist timber – Timbers



Learn these questions to build a strong foundation of knowledge for this half-term. Ask family or friends to test you regularly, or practise on your own using the 'Look, Say, Cover, Write' method.

	Question	Answer
1.	What are the 3 categories of timber?	Softwoods, hardwoods and manufactured boards
2.	Name 3 softwoods	Larch, Cedar, Pine
3.	Describe what a softwood is?	Softwoods are usually obtained from coniferous trees, which keep their leaves in winter.
4.	Which softwood has a natural resistance to rot?	Larch
5.	Name 5 hardwoods	Mahogany, Oak, Balsa, Beech, Ash
6.	Describe what a hardwood is?	Hardwoods are usually obtained from deciduous trees, which lose their leaves in autumn.
7.	Give 2 reasons why Oak is suitable for a kitchen table?	<ul style="list-style-type: none">• Tough, durable and strong – to withstand wear and indentation• Attractive warm / light brown / flecked / multi-tonal / grain – attractive aesthetics turning darker with age if unprotected
8.	Which hardwood is used for sporting equipment?	Ash
9.	Which hardwood is used for children's toys?	Beech
10.	What do we have to do to wood which is outside?	Apply a finish to make it last longer and increase durability
11.	What is the definition of toughness?	The ability to absorb energy without fracturing
12.	What is the definition of strength?	The ability to withstand force without breaking
13.	Give two characteristics that make MDF suitable for flat packed furniture?	<ul style="list-style-type: none">• Flat and rigid• Comes in large sheets• Good compressive strength• Cost effective to cover a large area• Easy to bond onto veneers/melamine for aesthetic effect• Easy to machine/mill/route to add features and pre-drilled locations for fittings• No natural defects/uniformly consistent material e.g. no knots
14.	Give 2 advantages of using MDF over natural timber?	<ul style="list-style-type: none">• MDF is available in large sheets - Therefore you can create much large surface areas and products• MDF has a smooth surface - So there is no need for planning and sanding• MDF is an environmentally friendly sustainable material - It is made from waste or recycled wood• MDF is a stable material - It will not warp or twist• MDF is cost effective - Therefore products will be less expensive• MDF does not have knots/ defects - Therefore the product will be stronger and will not require any additional treatment

		<ul style="list-style-type: none"> • MDF can accept a veneer finish - Therefore its appearance and properties can be altered
15.	Name 3 manufactured boards?	Medium density fibreboard, Chipboard, Plywood
16.	We can select the type of timber we are going to use for products based on certain key factors. These factors may influence why timbers are chosen. Give 3 factors to think about what choosing timber	<ul style="list-style-type: none"> • Aesthetics • Function • Availability • Environment • Cost • Culture • Social • Ethical
17.	What are the 6 R's to consider when thinking about environmental factors?	<ul style="list-style-type: none"> • Rethink, reuse, refuse, recycle, repair, reduce
18.	If Forests are not managed, this can lead to deforestation. List 2 affects of deforestation	<p>Loss of species: Loss of habitat can lead to species extinction</p> <p>Water cycle: Trees are important to the water cycle. They absorb rain fall and produce water vapor that is released into the atmosphere.</p> <p>Soil erosion: Tree roots anchor the soil. Without trees, the soil is free to wash or blow away, which can lead to vegetation growth problems.</p> <p>Life quality: Soil erosion can also lead to silt entering the lakes, streams and other water sources. This can decrease local water quality and contribute to poor health in populations in the area.</p> <p>The disturbance of native people: Many native tribes live in the rainforests of the world, and their destruction is the destruction of these peoples' homes and way of life.</p>
19.	What angle is laminated layers of plywood laid at?	90 degrees
20.	Why are the laminated layers, laid at alternate angles?	To add strength and made the board stiff