

Year 9 GCSE Design & Technology - Assessment Questions

| | Question | Answer |
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| 1 | Why is it better for the environment to use softwood rather than hardwood for paper pulp? | Because softwood trees grow more quickly than hardwood trees (30 years compared to 100 years), so the raw materials can be replaced more quickly. |
| 2 | What unit of measurement is used to measure the thickness of paper? | Grams per square metre. |
| 3 | Why is corrugated cardboard a good material choice for packaging a product? | The flutes between the two layers absorb shock if the packaging is damaged, this helps protect the product inside the package. |
| 4 | Which common board is used to make the lids for take away containers? | Foil lined board. |
| 5 | What is foam core board often used for? | Model making. |
| 6 | What is the difference between a hardwood tree and a softwood tree? | Hardwood = slow growing, deciduous (loses leaves in winter), wood is harder to work with. Softwood = relatively fast growing, coniferous (keeps leaves in winter), wood is easier to work with. |
| 7 | What is the term for cutting down a tree? | Felling. |
| 8 | Which group of woods do oak and ash belong to? | Hardwoods. |
| 9 | Which group of woods do pine and larch belong to? | Softwoods. |
| 10 | Which group of woods do mdf and plywood belong to? | Manufactured boards. |
| 11 | What is the standard size of sheets of manufactured board? | 2440mm x 1220mm. |
| 12 | What is a veneer? | A thin slice of natural wood taken from the trunk of a tree. |
| 13 | What gives plywood it's strength? | The fact it has alternating layers with the grain layers at 90 degrees to each other. |
| 14 | What are the names of the three groups of metals? | Ferrous, non-ferrous and alloys. |
| 15 | What does the word ferrous mean? | Contains iron. |
| 16 | What does the word alloy mean? | A mixture of at least one pure metal and another element. |
| 17 | Give an example of an alloy. | Brass, stainless steel, or high speed steel. |
| 18 | What are the names of the two groups of polymers? | Thermoforming and thermosetting. |
| 19 | Why is melamine formaldehyde a good choice for a kitchen worksurface. | It is a thermosetting polymer which means that it is heat resistant so would not be damaged by, for example, a hot saucepan. |
| 20 | Which material to we use in school for the process of vacuum forming? | High impact polystyrene. |
| 21 | Why is mdf a good choice as a material to make a mould for vacuum forming? | It is easy and quick to shape. |
| 22 | The name of which plastic can be shortened to PVC? | Polyvinyl chloride. |
| 23 | Give two examples of natural fibres. | Wool and cotton. |
| 24 | What is the fabric elastane often used to make? | Swimsuits and sportswear. |
| 25 | What is the advantage of plain weave over other weaves? | It is simpler, stronger and cheaper to produce than other weaves. |
| 26 | Why is copper a good choice for electrical wiring? | It is a good conductor. |
| 27 | What is the name given to the process of treating timber to make it suitable for use outdoors? | Tanalisation. |
| 28 | Name two advantages of joining two pieces of wood together using screws rather than | Screws can be easily removed if required. Screws provide a stronger fixing. |

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| | nails. | |
| 29 | Give four safety precautions you should take when cutting a material in the workshop. | Wear goggles, tie back long hair, wear apron, make sure there is no one close to you who may distract you. |
| 30 | What is the name of the tool used to mark out right angles? | Try square. |