

Year 13 Product Design Revision Timetable 2019

Below is a suggested schedule of activities in order to structure your revision of the Year 12 content relating to materials, their properties, applications; advantages and disadvantages; and associated processes.

Day	Revision Tasks	
1	<p>Timbers</p> <p>1) Read: Resistant Materials Book. 30, 32, 48, 52,</p> <p>2) Watch: Laminating: https://www.youtube.com/watch?v=vVswXx2m3eI Steam bending: https://www.youtube.com/watch?v=8sUti5yG7iU Joints: https://www.youtube.com/watch?v=JzemhohoTfM</p> <p>3) Draw: diagrams for preparing an item on the wood lathe, and two ways to bend timber.</p> <p>4) List: list as many wood joints, timber marking out tools, wood saws, drilling bits, wood finishes.</p> <p>5) Test – Complete the following test via the google form.</p>	<p>10 mins</p> <p>15 mins</p> <p>10 mins</p> <p>5 mins</p> <p>20mins</p>
2	<p>Metals</p> <p>1. Read: Resistant Materials Book: 25-28, 43-47, 60-62</p> <p>2. Watch: Heat Treatments: https://www.youtube.com/watch?v=6jQ4y0LK1kY Sand casting: https://www.youtube.com/watch?v=pwaXCko_Tkw Investment casting: https://www.youtube.com/watch?v=npHQPXGGkgl</p> <p>3. Draw: diagrams for sand casting process, metal die casting process and investment die casting process.</p> <p>4. List: list as many processes associated with working with timber</p> <p>5. Test – Complete the following test via the google form.</p>	<p>10 mins</p> <p>15 mins</p> <p>10 mins</p> <p>5 mins</p> <p>20mins</p>
3	<p>Papers, Boards and printing</p> <p>1. Read: Graphics Book: 29-33, 66-69, 62- 64</p> <p>2. Watch: Offset lithography https://www.youtube.com/watch?v=k-F9oOdRh0k Rotogravure https://www.youtube.com/watch?v=kd9seU1k6FE Flexography https://www.youtube.com/watch?v=flz-xWOB-gY</p> <p>3. Draw: diagrams for: offset lithography, rotogravure, flexography</p> <p>4. List: three common papers, and 3 carton boards, with an advantage and disadvantage for each.</p> <p>5. Test – Complete the following test via the google form.</p>	<p>15 mins</p> <p>10 mins</p> <p>10 mins</p> <p>5 mins</p> <p>20mins</p>

4	<p>Polymers</p> <ol style="list-style-type: none"> Read: Resistant Materials Book- 28-29, 49-51 Watch: Injection moulding: https://www.youtube.com/watch?v=RMjtmr3CqA PLA: https://www.youtube.com/watch?v=unmvWkfpmRE ABS https://www.youtube.com/watch?v=YCdvL87bv0w Draw: diagrams for injection moulding, blow moulding, rotational moulding and List: list as many thermoforming plastics, thermoplastics. Give two properties and uses for each. Test – Complete the following test via the google form. 	<p>10 mins</p> <p>15 mins</p> <p>10 mins</p> <p>5 mins</p> <p>20mins</p>
5	<p>Composites and smart materials</p> <ol style="list-style-type: none"> Read: Resistant Materials Book. 33-35 Watch: Carbon Fibre: https://www.youtube.com/watch?v=aKpDyfJnxQQ GRP: https://www.youtube.com/watch?v=W4fex_C3nKM Piezo electric: https://www.youtube.com/watch?v=ja4AidO7TO8 Draw: diagram for plywood List: list as many smart materials and give an application for each. Test – Complete the following test via the google form. 	<p>10 mins</p> <p>15 mins</p> <p>5mins</p> <p>10 mins</p> <p>20mins</p>