## Year 10 Long Term Scheme of Learning 2024-25



## **Subject: Design and Technology**

Date	Exams/ Assess	Unit(s)
2/9/24		Focused Practical
9/9/24		<ul> <li>Skills Builder Storage Box.</li> <li>How to measure, mark out, cut and join materials using a range of methods.</li> </ul>
16/9/24		Mock NEA  How to produce a 'plan of manufacturing'.  The requirements for section A of your mock NEA.
23/9/24		
30/09/24		Core and Specialist technical Principles
7/10/24		<ul> <li>3.1.6 Introduction to Materials (Timbers) and working Properties</li> <li>3.2.4 Sources and origins</li> <li>3.1.6 Introduction to Materials (Polymers) and working Properties</li> <li>3.2.4 Sources and origins</li> <li>3.1.1 Sustainability and the environment. LCA. 6 R's.</li> <li>3.2.3 Ecological and social footprint</li> </ul>
14/10/24		
21/10/24		
4/11/24		Mock NEA
11/11/24		
18/11/24		
25/11/24		<ul> <li>Core and Specialist technical Principles</li> <li>3.1.1 Introduction to CAD / CAM / CNC.</li> <li>Application of 2D Design tools.</li> <li>3.1.1 Understand the impact of new and emerging technologies with relation to social, cultural and moral issues.</li> <li>3.3.5 Communication of design ideas.</li> <li>Develop, communicate, record and justify design ideas using a range of appropriate techniques</li> </ul>
2/12/24		
9/12/24		
16/12/24		
6/1/25		Focused Practical
13/1/25		
20/1/25		Mock NEA     Section D – Further research to include elements from focused theory teaching
27/1/25		Core and Specialist technical Principles  • 3.2.6 Standard Components and Stock Forms  • 3.2.8 Specialist techniques and processes  • 3.2.1 Selection of materials or components  • 3.1.4 Systems approach to designing.
3/2/25		

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# HELSBY High School Achieving Success Valuing Others

## **Subject: Design and Technology**

10/2/25	Inputs, processes and outputs.
24/2/25	<ul> <li>Focused Practical</li> <li>How to use CAD in order to produce products.</li> <li>Key functions and requirements for the laser cutter to work effectively.</li> <li>How to use hot wire strip heater.</li> </ul>
3/3/25	How to use the metal turning lathe  Core and Specialist technical Principles
10/3/25	3.2.7 Scales of production  How products are produced in different volumes. The reasons why different manufacturing methods are used for different production volumes:     Prototype     Batch     Mass     Continuous.
17/3/25	
24/3/25	<ul> <li>3.2.8 Commercial processes</li> <li>Timber based materials (routing and turning).</li> <li>Metal based materials (milling, casting and turning).</li> </ul>
31/3/25	o Polymers (injection molding and extrusion).
21/4/25	Focused Practical     How to use the metal turning lathe.
28/4/25	<ul> <li>How to create a thread on the ends of round bar.</li> <li>How to form and shape sheet metal.</li> <li>How to accurately mark out a drill holes in metal sheet.</li> <li>Permanent and semi permanent metal joining techniques including welding</li> </ul>
5/5/25	and pop riveting.  Core and Specialist technical Principles
12/5/25	<ul> <li>3.3.3 The work of others</li> <li>3.3.7 Selection of materials and components</li> <li>3.3.8 Tolerances</li> </ul>
19/5/25	<ul><li>3.2.8 Specialist techniques and processes</li><li>3.3.9 Material management</li></ul>
2/6/25	GCSE NEA context release
9/6/25	
16/6/25	Section A. Exploring design opportunities.  Section B. Davidening a design brief and specification.
23/6/25	<ul> <li>Section B. Developing a design brief and specification.</li> <li>Section C. Development of design ideas</li> </ul>
30/6/25 7/7/25	Section C. Development of design ideas
14/7/25	