

2019 - 2020 KS4 Engineering Curriculum Plan

Week	Day	W/C	Year 9 - 2 Lessons Per Week	Year 10 - 2 Lessons Per Week	Year 12 - 2 Lessons Per Week
1	Wednesday	28/08/2019	Introduction to Plastics/Polymers and Clock project module of work	Introduction to Engineering Manufacture course and overview of course content	Introduction and preparation for Assignment Task R112
2	Monday	02/09/2019	Research into Thermo and thermosetting plastics	Metals - Properties and uses	Task 1
3	Monday	09/09/2019	Plastic production/manufacturing methods	Metal Processes - Mini-project	Task 2
4	Monday	16/09/2019	Project design work	Metal Production methods - Lathe turning, cutting & Threading	Task 2
5	Monday	23/09/2019	Project production and assembly	Metal Production methods - Lathe turning, cutting & Threading	Task 2
6	Monday	30/09/2019	Evaluation and end of project assessment	Metal Production methods - Lathe turning, cutting & Threading	Task 2
7	Monday	07/10/2019	Engineering Drawing Techniques - Oblique projection	Metal Production methods - Lathe turning, cutting & Threading	Task 3
8	Monday	14/10/2019	Engineering Drawing Techniques - Isometric projection	End of Unit Assessment	Catchup and revision week.
Half Term	Monday	21/10/2019			
	Monday	28/10/2019			
9	Monday	04/11/2019	Engineering Drawing Techniques - Orthographic drawing and interpretation	Introduction to CAD / CAM and CNC manufacturing	Exam preparation & Revision
10	Monday	11/11/2019	CAD - ProDesktop 3D	CNC Milling - Design	Mocks - Mon 11th to fri 22nd
11	Monday	18/11/2019	3D design project	CNC Milling - Design and setup	Mocks - Mon 11th to fri 22nd
12	Monday	25/11/2019	3D design project & 3D Printing	CNC Milling - practical	Revision for final exam starts.
13	Monday	02/12/2019	Plastic production/manufacturing methods	CNC in Industry - Methods and applications	Modern Technologies in Engineering Production
14	Monday	09/12/2019	Plastic production/manufacturing methods	Robotics and Emerging technologies	Additive manufacturing and Rapid Prototyping
15	Monday	16/12/2019	End of Unit Assessment	Scale of Production - One-off, Batch, Mass production	Properties, Characteristics and uses of Engineering Materials
Christmas	Monday	23/12/2019			
	Monday	30/12/2019			
16	Monday	06/01/2020	Introduction to Metals	End of Unit Assessment	Exam - first possible sitting - 9th January
17	Monday	13/01/2020	Ferrous and non-Ferrous metal research	Engineering Drawing Refresher - Orthographic drawing and interpretation	Revision - Plastics, properties and manufacturing processes
18	Monday	20/01/2020	Metal production/manufacturing methods	Introduction and preparation for Assignment Task R110	Revision - Plastics, properties and manufacturing processes
19	Monday	27/01/2020	Introduction to Metal Casting project module of work	Task 1	Revision - Plastics, properties and manufacturing processes
20	Monday	03/02/2020	CAD design of mould and laser cutting	Task 1	Revision - Plastics, properties and manufacturing processes
21	Monday	10/02/2020	Project production and assembly	Task 2	Revision - Metals, properties and manufacturing processes
Half Term	Monday	17/02/2020			
22	Monday	24/02/2020	Project production and assembly	Task 2	Revision - Metals, properties and manufacturing processes
23	Monday	02/03/2020	Evaluation and end of project assessment	Task 2	Revision - Metals, properties and manufacturing processes
24	Monday	09/03/2020	Cutting/Joining/Moulding/Shaping metals	Task 2	Revision - Metals, properties and manufacturing processes
25	Monday	16/03/2020	Cutting/Joining/Moulding/Shaping metals	Task 3	Revision - Composites and SMART materials
26	Monday	23/03/2020	Cutting/Joining/Moulding/Shaping metals	Introduction and preparation for Assignment Task R111	Revision - Composites and SMART materials
27	Monday	30/03/2020	End of Unit Assessment	Task 1	Revision - Composites and SMART materials
Easter	Monday	06/04/2020			
	Monday	13/04/2020			
28	Monday	20/04/2020	Knowledge review and target setting	Task 1	Revision - Modern Technologies in Engineering Production
29	Monday	27/04/2020	Composites and SMART materials	Task 2	Robotics and Emerging technologies
30	Monday	04/05/2020	Composites and SMART materials	Task 2	Scale of Production - One-off, Batch, Mass production
31	Monday	11/05/2020	Composites and SMART materials	Task 2	Revision
32	Monday	18/05/2020	Emerging Technologies	Task 3	Revision
Half Term	Monday	25/05/2020			
33	Monday	01/06/2020	End of Year 9 Assessment	Revision - Production methods and equipment	Exam - final exam - 22nd May
34	Monday	08/06/2020	Summer project - Electric racing car. Research and design	Revision - Modern Technologies in Engineering Production	
35	Monday	15/06/2020	CAD development	Revision - Modern Technologies in Engineering Production	
36	Monday	22/06/2020	Practical work	Revision	
37	Monday	29/06/2020	Practical work	Revision	
38	Monday	06/07/2020	Assembly and racing.	Revision	
39	Monday	13/07/2020	Extension Task	Revision	
Summer					