



Newton Moore Senior High School Technology and Enterprise Year 10 Design & Technology 2016



Course Description:

Learning in Design and Technologies builds on concepts, skills and processes developed in earlier years, and teachers will revisit, strengthen and extend them as needed.

Students have opportunities to use design and technologies knowledge and understanding, processes and production skills, and design thinking, to produce solutions to identified needs or opportunities of relevance to individuals, and regional and global communities. Students work independently and collaboratively. They have opportunities to understand the complex interdependencies involved in the development of technologies and enterprises. The focus is on students designing solutions, taking into account ethics; legal issues; social values; economic, environmental and social sustainability factors; and using more sophisticated strategies. They use creativity, innovation and enterprise skills with confidence, independence and collaboration.

Technology Process

Students apply a technology process to create or modify products to meet human needs and requirements.

- Investigating – Students investigate issues, needs and opportunities.
- Designing – Students devise and generate ideas and prepare production proposals.
- Producing – Students produce solutions and manage production processes
- Evaluating – Students evaluate intentions, plans and actions

Materials

Students investigate the characteristics and properties of materials, systems, components, tools and equipment used to create designed solutions

Students will apply safe selection, implementation and testing to appropriate technologies and processes, to make solutions in a safe and effective manner.

Students will apply an understanding of skills and knowledge relevant to the designing and presenting of information as required.

Course Outline

Week	Content
1	Introduction to Unit. Assessment Policy and Procedures <ul style="list-style-type: none">• Workshop Safety• Sketching Techniques• Orthogonal drawing
2	Sketching <ul style="list-style-type: none">• Pictorial drawing• Isometric Sketching• Rendering techniques

	<ul style="list-style-type: none"> • Dimensioning
3	Production Techniques <ul style="list-style-type: none"> • Marking Out • Sawing • Paring a Trench • Fitting and Assembly • Cleaning up
4-6	Introduction to the Lathe <ul style="list-style-type: none"> • Preparing timber for turning • Lathe parts and tools • Finishing on the Lathe • Drill holes for cup holder • Make template for post design • Turn post
7-10	Lamination task <ul style="list-style-type: none"> • Techniques for laminating • Use of the Router • Use of Biscuit Joint • Use of the Router • Use of Biscuit Joint
11-17	Book Worm <ul style="list-style-type: none"> • Introduction to finger joint • Turning to size • Application of finish
18	Response and Evaluation
19-20	Bird Feeder/Possum Box <ul style="list-style-type: none"> • Students required to design the above using a recycled timber • Use of Sketch up
21-25	Bird Feeder/ Possum Box <ul style="list-style-type: none"> • Development of production plan
26-29	Design of Major Project <ul style="list-style-type: none"> • Development of Working Drawings • Materials List • Costing • Development of production Plan
30-38	Production of Major Project <ul style="list-style-type: none"> • Execution of Plan • Journal • Plan verses actual
39-40	Response and Evaluation

This course outline may be subject to change, any changes will be communicated to students.

Assessment Outline

Type of assessment	Due Date	Outcomes	Max Score	Weighting
Investigation: Sketching and Design	Semester 1 Week 2	Technology Process	10	2.5%
Investigation: Devise – Lathe Post	Semester 1 Week 5	Technology Process	10	3.5%
Production: Skills Devel Cross-halving joint Lathe turning	Semester 1 Week 4 Week 6	Technology Process Materials	20 20	5% 2.5%
Investigate & Devise: Design Brief (Chopping Board)	Semester 1 Week 7	Technology Process Materials	20	6.5%
Production: Lamination task	Semester 1 Week 8-10	Technology Process	20	7.5%
Producing: Processes and Skills BookWorm Turned Worm	Semester 1 Week 11-17	Technology Process Materials	30 20	10% 5%
Evaluating	Semester 1 Week 18	Technology Process	15	7.5%
Investigate and Devise: Design Brief Bird Bath/Possum Box Major Project	Semester 2 Week 2 Week 9	Technology Process	10 15	5% 7.5%
Production: Bird Bath/Possum Box Major Project	Semester 2 Week 5 Week 17	Technology Process Materials	20 40	10% 20%
Evaluating (Major Project)	Semester 2 Week 18	Technology Process	20	7.5%
Total				100%

The above weightings are intended to show the importance of each task. The allocation of a grade at the end of a semester is determined based on grade related descriptors issued by School Curriculum and Standards Authority.