

MERBEIN P-10 DESIGN, CREATIVITY TECHNOLOGY COURSE OUTLINE

TECHNOLOGY METALS (Ausvels based)

<u>Year</u>	<u>Investigating & Designing</u>	<u>Producing</u>	<u>Analysing & Evaluating</u>
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7	<p>Class work consists of:</p> <ul style="list-style-type: none"> • Safety in the workshop • Measurement using Millimetres • Skill development using basic hand and power tools • Design process including reflection, analysing and evaluating logical steps involved in constructing a project • Limitations of the materials in use 	<ul style="list-style-type: none"> • Marking out using –Engineers square/Rule/Chalk/Pencil/Center punch • Cutting materials using – Scroll saws/Guillotine • Drilling holes using- Pedestal drill/ Pistol drill • Changing shape of Plastic using- Strip Heater/Oven • Scrolling metal for wrought iron • Use of File, Sandpaper, steel wool to prepare materials • Photo Frames • Candle Holder • Electronic Siren 	<ul style="list-style-type: none"> • Introduction to the Design process including reflection, analysing and evaluating logical steps involved in constructing a project. • Evaluating work processes, design features and techniques and skills learnt

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8	<p>Class work consists of:</p> <ul style="list-style-type: none"> • Safety in the workshop • Measurement using Millimetres • Skill development using basic hand and power tools (One – two more complex tools used in the design) • Development of the Design process including logical steps involved in constructing a project • Considerations of different materials and the limitations or suitability to the task • Creating working drawings of the project-Include all measurements/angles/joint structure/ • Detailed procedure for the project is written to display understanding and planning. 	<ul style="list-style-type: none"> • Creating working drawings of the project-Include all measurements/angles/joint structure/ • Producing a metal creation of the students choice, involving use of basic hand and power tools (One – two more complex tools used in the design) 	<ul style="list-style-type: none"> • Detailed procedure for the project is written to display understanding and planning. • Evaluation of tools procedures used and suitability of the materials chosen/skill level displayed and improvements needed.
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9	<p>Class work:</p> <ul style="list-style-type: none"> • Safety in the workshop (More complex tools and equipment are identified and the dangers that exist when using this type of equipment are discussed. All Personal Protective Equipment is identified and worn during use of these tools. Safety is specifically taught to satisfy OHS requirements) • Measurement using Millimetres is assessed to 3mm tolerance • Skill development using basic hand and power tools (One –two more complex tools must be used in the design, as per the VELS requirements) • Development of the Design process including logical steps involved in constructing a project • Considerations of different materials and the limitations 	<ul style="list-style-type: none"> • Creating working drawings of the project-Include all measurements/angles/joint structure/ • Detailed procedure for the project is written to display understanding and planning • Producing one or more metal creation of the students choice, involving use of basic hand and power tools (More complex tools used in the design) 	<ul style="list-style-type: none"> • Evaluation of tools used and suitability of the materials chosen/skill level displayed and improvements needed. • MIG Welding, associated cutting tools and techniques undertaken by the students are analysed and evaluated with teacher input into improvement techniques • Students have the option to create a design that they have considered different materials, researched and developed a solution to fit the need of this item. Ergonomics, colours, strength and process selection must be discussed within the research displayed in the folio.
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	or suitability to the task.		
10	<p>Class work:</p> <ul style="list-style-type: none"> • Safety in the workshop (More complex tools and equipment are identified and the dangers that exist when using this type of equipment are discussed. All Personal Protective Equipment is identified and worn during use of these tools. Safety is specifically taught to satisfy OHS requirements) • Measurement using Millimetres is assessed to 3mm tolerance • Skill development using basic hand and power tools (One –two more complex tools must be used in the design, as per the VELS requirements) • Development of the Design process including logical steps involved in constructing a project 	<ul style="list-style-type: none"> • Creating working drawings of the project-Include all measurements/angles/joint structure/ • Detailed procedure for the project is written to display understanding and planning Producing one or more metal creation of the students choice, involving use of basic hand and power tools (More complex tools used in the design) 	<ul style="list-style-type: none"> • Evaluation of tools used and suitability of the materials chosen/skill level displayed and improvements needed. • MIG Welding, associated cutting tools and techniques undertaken by the students are analysed and evaluated with teacher input into improvement techniques • Students have the option to create a design that they have considered different materials, researched and developed a solution to fit the need of this item. Ergonomics, colours, strength and process selection must be discussed within the research displayed in the folio.

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	Considerations of different materials and the limitations or suitability to the task.		
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