



B O A R D O F S T U D I E S
NEW SOUTH WALES

Industrial Technology
Stage 6

Support Document

Preliminary Course
Programmed Units of Work

2010

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Introduction

This support document is designed to assist teachers as they implement the *Industrial Technology Stage 6 Syllabus*. It provides advice on programming and assessment for selected syllabus content from the Preliminary course.

The examples of scope and sequence plans provide ways in which teachers may consider planning and sequencing units of work, and developing teaching and learning activities.

The sample units of work represent a framework that teachers can customise to build a teaching and learning program and develop units of work to ensure coverage of the scope of the Preliminary course. Teachers should provide more specific details about the tasks undertaken, and the resources used, by students.

Information Specific to Programmed Units of Work

A suggested unit length has been provided; however, teachers may elect to alter this. In some cases, certain aspects of a unit can be further integrated or combined. Teachers might also find it appropriate to delete or expand suggested activities, depending on the focus of the unit for a particular school situation.

Preliminary Course

Sample Assessment Plan and Programmed Units of Work

The Stage 6 course is taught over 240 hours with the Preliminary course a pre-requisite to the HSC course.

The Preliminary course is project-based, with related management folios to support the practical projects. The scope and sequence are based on one design project and related management folio being completed each term. This can be varied depending on the focus area studied, the number of students and the design projects chosen. There are many other ways in which similar Preliminary course assessment grids could be constructed that may involve different types of tasks, timing of tasks and weighting given to each.

Preliminary Course Sample Assessment Plan

Component	Task 1 Industry Study Report with Oral Presentation	Task 2 Project 2 with Related Management Folio	Task 3 Project 3 with Related Management Folio	Task 4 Yearly Examination	Weighting
	Term 1, Week 6	Term 2, Week 6	Term 3, Week 5	Term 3, Week 7	
	P1.1, P1.2, P5.1, P7.1, P7.2	P2.1, P2.2, P3.2, P3.3, P5.2	P3.1, P4.1, P4.2, P4.3, P6.2	P1.1, P6.1, P7.1, P7.2	
Knowledge and understanding of the organisation and management of, and manufacturing processes and techniques used by, the focus area	20	5	5	10	40
Knowledge, skills and understanding in designing, managing, problem-solving, communicating and the safe use of manufacturing processes and techniques through the production of projects		15	15	30	60
Marks	20	20	20	40	100

Unit 1 Focus Area: Metal and Engineering Technologies

Sample Scope and Sequence

Syllabus Content	Term 1	Term 2	Term 3
Design Management and Communication	Introduction to project work including: <ul style="list-style-type: none"> graphical communication techniques design principles project management teamwork calculating requirements 	The relationship of the practical project to industry. Development of skills in: <ul style="list-style-type: none"> literacy and numeracy use of computer-based technologies graphics through folio documentation related to the project	Focus on: <ul style="list-style-type: none"> project quality consideration of design influences independent research activities the use of ICT to enhance the management folio
Production Industry Related Manufacturing Technology Project	Projects Letterbox Garden sculpture Focus on the development of practical skills that incorporate: <ul style="list-style-type: none"> workplace safety metals and engineering processes using hand and power tools introduction to machinery 	Project Sliding clamp Focus on: <ul style="list-style-type: none"> developing skills understanding of processes, tools and machinery 	Project Torque wrench Focus on: <ul style="list-style-type: none"> extending and applying the skills learnt in previous projects
Industry Study		Study of an organisation and management of an individual business related to the focus area	
Outcomes	P1.2, P2.1, P2.2, P3.1, P3.2, P3.3, P4.3, P5.2	P1.1, P1.2, P3.1, P4.1, P4.2, P5.1, P5.2, P7.1, P7.2	P1.2, P2.1, P3.1, P3.2, P3.3, P4.1, P4.2, P4.3, P5.1, P5.2, P6.1, P6.2

Metal and Engineering Technologies

Overview and Rationale

Unit length: 9 weeks

This unit requires students to construct a letterbox. The details are provided in a job sheet. This unit emphasises the development of skills including:

- reading and interpreting a detail drawing of the project
- constructing the project accurately to drawn details
- documenting the management and construction of the project in a management folio.

Students will engage in literacy and numeracy activities to build their understanding and use of the metalanguage of the subject.

Syllabus topics covered

- Project Management
- Literacy
- Numeracy
- Communication
- Materials
 - Properties of ferrous metals
 - Applications and uses of metals
 - Sections and shapes of ferrous metals
- OHS
 - Personal Protection Equipment (PPE) and safe working practices
- Processes
 - Fabrication including marking out, cutting, bending and joining
 - Machining including turning, drilling, threading
 - Finishing
- Tools and Machinery
 - Hand tools, lathe, bench drill, cold saw, angle grinder, heat treatment and welding equipment

Preliminary course outcomes

- P1.2 identifies appropriate equipment, production and manufacturing techniques, including new and developing technologies
- P2.1 describes and uses safe working practices and correct workshop equipment maintenance techniques
- P2.2 works effectively in team situations
- P3.1 sketches, produces and interprets drawings in the production of projects
- P3.2 applies research and problem-solving skills
- P3.3 demonstrates appropriate design principles in the production of projects
- P4.3 identifies and explains the properties and characteristics of materials/components through the production of projects
- P5.2 uses appropriate documentation techniques related to the management of projects

Assessment

This unit of work will be assessed through the practical project and accompanying management folio and may also be assessed through examinations later in the course.

Quality teaching focus

The focus of this unit of work is to develop skills and knowledge in communication, fabrication and machining. Students engage in activities that build confidence and understanding of the concepts of management, construction and documentation techniques. This understanding will be gained through a thorough study of the metalanguage of project management, manufacturing and documentation. The practical project reinforces the learning of these concepts.

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Teacher Introduces students to concepts of reading and understanding a workshop drawing (job sheet) using a variety of job sheets and interpretation questionnaires. There is no student design component in this project.</p> <p>Students Analyse the various workshop drawings and prepare simple detail drawings of related objects.</p>	<p>Design</p> <ul style="list-style-type: none"> • object drawing: views of items from different perspectives: <ul style="list-style-type: none"> – orthogonal (2D) – pictorial (3D) representations – sketching, rendering using a range of appropriate media • industry production drawing specifications: <ul style="list-style-type: none"> – correct dimensions and proportions – accurate details on drawings and exploded views – CAD and presentation techniques <p>Materials</p> <ul style="list-style-type: none"> • properties of ferrous and non-ferrous metals in common usage: <ul style="list-style-type: none"> – strength – durability – ductility – malleability – lustre – hardness 	<ul style="list-style-type: none"> • interpret and prepare appropriate drawings required for the graphical communication/presentation of projects • use a range of manual and computer-based graphical techniques to communicate design details of project development • identify the properties of a range of ferrous and non-ferrous metals 	

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Teacher Demonstrates and discusses selection of appropriate ferrous and non-ferrous metals and introduces the use of materials lists.</p> <p>Students Define property terminology in relation to metals and their use.</p> <p>Examine a range of different types of metals. Develop a table of comparison including appearance, properties, possible end uses.</p> <p>Complete materials lists for a range of projects.</p> <p>Examine various metal sections and shapes available for use in different projects.</p> <p>Examine a range of project samples to determine the suitability of the material to the end use.</p> <p>Report findings back to class in a written or oral presentation.</p>	<ul style="list-style-type: none"> • applications and use of a range of ferrous and non-ferrous metals: <ul style="list-style-type: none"> – copper – brass – steel – silver – gold – aluminium • sections and shapes of ferrous and non-ferrous metals commonly used: <ul style="list-style-type: none"> – tube – wire – solid sections – bar – sheet <p>Design</p> <ul style="list-style-type: none"> • factors determining appropriateness of design: <ul style="list-style-type: none"> – economics – environment – manufacturing techniques – sustainability – decoration – anthropometrics and ergonomics • material suitability and selection 	<ul style="list-style-type: none"> • recognise and use a range of ferrous and non-ferrous metals • discuss the suitability of a particular metal for an application • discuss the uses of the various shapes and forms of ferrous and non-ferrous metals such as sheet, bar, wire and tube for particular applications • use various shapes and sections of metals in practical projects • evaluate a range of manufactured items to determine appropriate design features, material suitability and choice within the focus technology 	

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Teacher Demonstrates relevant marking out, cutting, machining, joining and finishing procedures using hand and power tools and appropriate machinery for the completion of practical project.</p> <p>Explains the procedures undertaken in industry for colouring and modifying the properties of metals.</p> <p>Explains the appropriate occupational health and safety procedures (OHS), equipment and responsibilities.</p> <p>Students Complete a safety test.</p> <p>Observe demonstration of processes and use of tools and equipment. Commence practical project completing the relevant marking out, cutting, machining, joining and finishing procedures using hand and power tools and machinery to complete the practical project.</p>	<p>Processes</p> <ul style="list-style-type: none"> • skills and methods used, for a variety of metals, in: <ul style="list-style-type: none"> – marking out – cutting – machining – joining – finishing – colouring – casting – modifying properties <p>Occupational health and safety</p> <ul style="list-style-type: none"> • workplace safety and communication <ul style="list-style-type: none"> – OHS requirements and considerations – signage – personal protection equipment (PPE) – safe working practices – risk assessment 	<ul style="list-style-type: none"> • apply the practical skills and methods used, for a variety of metals, in marking out, cutting, machining, fabricating, joining, modifying properties, colouring and finishing • engage in a broad range of processes through a variety of practical projects using the most suitable process • use the appropriate industry processes, where possible, in the production of practical projects • gain an awareness of processes used in industry, appropriate to the practical projects being undertaken, which may not be possible in the school environment • identify and apply appropriate finishes to complete projects • identify and apply the various techniques to modify the properties of metals in practical projects • applies all aspects of OHS requirements when working on projects in the workshop 	

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Teacher Demonstrates the appropriate procedures for using a range of tools and equipment for use in practical project number one.</p> <p>Describe tools and machinery used in industry and their purpose.</p> <p>Students Use appropriate tools and equipment safely and correctly when completing practical project number one.</p> <p>Complete an internet search on equipment used in industry. Describe their use and purpose including a labelled diagram.</p>	<p>Tools and machinery</p> <ul style="list-style-type: none"> • the use and maintenance of the tools and machinery involved in the construction of practical projects such as: <ul style="list-style-type: none"> – pliers – squares – rules – dividers – snips – punches – scribe – files – shears – stakes – hammers and mallets – heat treatment equipment – welding/brazing/soldering equipment – forging and shaping equipment – clamps – jigs and vices – thread cutting equipment – saws (power and hand) – pedestal drill – drill mill – finisher – magna bend – supershears – buff/grinder – lathe – CNC tools and equipment – portable power tools 	<ul style="list-style-type: none"> • experience a range of tools and machines appropriate to the metal being used and the processes being carried out, to complete practical projects • safely use tools and machinery • perform basic maintenance procedures on tools and machinery • identify tools and machinery used by industry, not available in the school environment, but appropriate to the practical activities being undertaken 	

Unit 2 Focus Area: Multimedia Technologies

Sample Scope and Sequence

Syllabus Content	Term 1	Term 2	Term 3
Design Management and Communication	Introduction to project work including multimedia communication techniques	Focus on developing skills in the use of: <ul style="list-style-type: none"> multimedia technologies appropriate software and animation techniques 	Focus on: <ul style="list-style-type: none"> project quality independent research activities
Production Industry Related Manufacturing Technology Project	Projects Multimedia Computer Systems Text and Graphics in Multimedia Focus on development of practical skills to incorporate: <ul style="list-style-type: none"> workplace safety considerations multimedia technology processes and tools 	Projects Web page design Animated Movie Focus on: <ul style="list-style-type: none"> skill development in animation techniques and video editing broaden understanding of processes and tools in multimedia 	Project News Bulletin Focus on: <ul style="list-style-type: none"> extending skills learnt in previous projects
Industry Study			Study <ul style="list-style-type: none"> a multimedia technology business business management practices industry use of new and emerging technologies
Outcomes	P1.1, P1.2, P2.2, P3.2, P3.3, P5.1, P5.2, P7.1, P7.2	P1.2, P3.1, P3.2, P3.3, P4.1, P4.2, P4.3, P5.1, P5.2	P1.1, P2.1, P4.3, P6.1, P6.2, P7.1, P7.2

Multimedia Technologies

Overview and Rationale

Unit length: 8 weeks

This unit requires the students to create a 3-minute animated movie using appropriate software and production techniques. Students may choose any subject and/or object for their video. The emphasis is on the student researching different software and hardware requirements, as well as storyboarding, lighting and camera peripherals. Students will then apply this research in the development and staging of their animation. Students will be introduced to a variety of animation techniques, video-editing, storyboarding, sketching, lighting and filming. Students will complete a Design, Management and Communication folio documenting their work. They will engage in literacy activities that will build their confidence in the understanding and use of the metalanguage of the subject.

Syllabus topics covered

- Cameras: video and still cameras
 - operation
 - lighting
 - angles/composition
- Appropriate software relevant to the project in the areas of:
 - authoring
 - publishing
 - sound creation/capture /editing
 - image creation/capture/editing
 - video creation/capture/editing
 - text creation/capture/editing
 - animation creation/capture /editing
- Storyboarding types – linear, nonlinear, hierarchical, composite
- Applications

Preliminary course outcomes

- P1.2 identifies appropriate equipment, production and manufacturing techniques, including new and developing technologies
- P3.1 sketches, produces and interprets drawings in the production of projects
- P3.2 applies research and problem-solving skills
- P3.3 demonstrates appropriate design principles in the production of projects
- P4.1 demonstrates a range of practical skills in the production of projects
- P4.2 demonstrates competency in using relevant equipment, machinery and processes
- P4.3 identifies and explains the properties and characteristics of materials/components through the production of projects
- P5.1 uses communication and information processing skills
- P5.2 uses appropriate documentation techniques related to the management of projects

Assessment

This unit of work will be assessed through the practical project and accompanying management folio and may also be assessed through examinations later in the course.

Quality teaching focus

The focus of this unit of work is to provide the necessary skills and knowledge to create simple animations. Students engage in activities that build confidence and understanding of the concepts of animation and various presentation techniques. This engagement will be gained from a thorough study of the metalanguage and the relevant related practical concepts of animation and video editing. Practical projects reinforce the learning of these concepts.

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Teacher Provides students with project details. Demonstrates stop motion software including:</p> <ul style="list-style-type: none"> • capture • frame rates • digital video (PAL, NTSC etc) • camera inputs from digital still or video cameras (pan, zoom etc) • backgrounds • props • 'blue screen' effects • lighting effects. <p>Demonstrates the use of appropriate software to create animation figures, including:</p> <ul style="list-style-type: none"> • imitating movement • movement/frame rate considerations • figures such as Stikfas. <p>Describes a range of storyboarding techniques.</p> <p>Demonstrates suitable video-editing software, import/export (cross-platform file types), transitions, special effects, titles, credits and adding sound.</p> <p>Students Storyboard the animations. Construct suitable sets/backgrounds, as necessary, and set up software and cameras to film their animation.</p> <p>Design sets for animation including background, props and lighting.</p>	<p>Operating a computer system</p> <ul style="list-style-type: none"> • select and operate computing packages – manipulate data between applications • input devices, including: <ul style="list-style-type: none"> – keyboard – mouse – scanners • output devices: <ul style="list-style-type: none"> – screens – printers (ink-jet and laser) – projectors • cameras: <ul style="list-style-type: none"> – digital/analogue – still/video • appropriate software relevant to the project in the areas of: <ul style="list-style-type: none"> – authoring – publishing – sound creation/capture/editing – image creation/capture/editing – video creation/capture/editing – text creation/capture/editing – animation creation/capture/editing <p>Multimedia design</p> <ul style="list-style-type: none"> • storyboarding types including: <ul style="list-style-type: none"> – linear – nonlinear – hierarchical – composite applications 	<ul style="list-style-type: none"> • manipulate and integrate data between a range of software applications • identify and use input and output devices in conjunction with specific multimedia software • set up and operate basic still and video cameras for use in small media productions • investigate and use of range of software suitable for the creation, editing and publishing of multimedia projects • identify and use planning processes related to a range of multimedia presentations • investigate and discuss the processes of obtaining, creating and modifying images, sound and text 	

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Import digital video into suitable editing software packages, apply transitions, titles, credits, sound/music and export to a suitable cross-platform file type (QuickTime) for viewing.</p> <p>Capture enough frames for a 2-minute animation.</p> <p>Complete the editing of their animation.</p> <p>Burn to CD/DVD for viewing.</p> <p>Complete accompanying management folio.</p>	<ul style="list-style-type: none"> • sound creation/editing/conversion <ul style="list-style-type: none"> – wave – MIDI – podcasts – compression formats/codecs • video and still cameras <ul style="list-style-type: none"> – operation – lighting – angles/composition • data integration 	<ul style="list-style-type: none"> • produce and manipulate digital images • use presentation techniques and strategies in multimedia • author a multimedia product • apply principles of design in the planning and production of multimedia presentations 	

Unit 3 Focus Area: Timber Products and Furniture Technologies

Sample Scope and Sequence

Syllabus Content	Term 1	Term 2	Term 3
Design Management and Communication	<p>Introduction to project work and the relationship to industry, including:</p> <ul style="list-style-type: none"> graphical communication techniques occupational health and safety planning processes literacy and numeracy 	<p>Development of skills in:</p> <ul style="list-style-type: none"> use of computer-based technologies (including CAD) to enhance the management folio teamwork 	<p>Focus upon:</p> <ul style="list-style-type: none"> project quality consideration of design influences independent research activities
Production Industry-related Manufacturing Technology Project	<p>Project Entertainment unit</p> <p>Development of practical skills incorporating:</p> <ul style="list-style-type: none"> workplace occupational health and safety considerations timber product processes, tools and machinery 	<p>Project Station clock</p> <p>Build upon skills learnt in the introductory project. Focus on developing:</p> <ul style="list-style-type: none"> understanding of processes, tools and machinery teamwork skills in a group-based project 	<p>Project Folding stool</p> <p>Focus on:</p> <ul style="list-style-type: none"> extending skills learnt in the previous projects
Industry Study	<p>Study of timber products and furniture technologies business, eg South Coast Kitchens and their management practices</p>		
Outcomes	P1.1, P1.2, P2.1, P3.2, P4.2, P5.1, P5.2, P7.1, P7.2	P1.1, P1.2, P2.2, P3.1, P3.3, P4.1, P4.2, P6.1	P1.1, P2.1, P4.3, P6.2, P7.1, P7.2

Timber Products and Furniture Technologies

Overview

Unit length: 8 weeks

This unit requires the students to design and construct an entertainment unit that will house a micro hi-fi system, eg radio/CD bookshelf or similar iPod, MP3 sound system. The emphasis is on the student researching and designing for different size requirements of specific systems, as well as the use of suitable construction methods allowing for the different materials that will be incorporated in its design. Students will apply this research in the development and construction of their final product. Students will be introduced to a variety of design, materials, hardware and construction techniques. They will engage in literacy activities that will build their understanding and use of the metalanguage of the subject.

Syllabus topics covered

- Design – elements and principles
- Communication
- Graphical skills
- ICT
- Project management
- Literacy
- Numeracy
- Materials
 - timber and timber products
 - properties and characteristics of hardwoods and softwoods
 - manufactured boards
- Processes, tools and machinery

Preliminary course outcomes

- P1.1 describes the organisation and management of an individual business within the focus area industry
- P1.2 identifies appropriate equipment, production and manufacturing techniques, including new and developing technologies
- P2.1 describes and uses safe working practices and correct workshop equipment maintenance techniques
- P3.2 applies research and problem-solving skills
- P4.2 demonstrates competency in using relevant equipment, machinery and processes
- P5.1 uses communication and information processing skills
- P5.2 uses appropriate documentation techniques related to the management of projects
- P7.1 identifies the impact of one related industry on the social and physical environment
- P7.2 identifies the impact of existing, new and emerging technologies of one related industry on society and the environment

Assessment

This unit of work will be assessed through the practical project and accompanying management folio work and may also be assessed through examinations later in the course.

Quality teaching focus

The focus of this unit of work is to provide the necessary skills and knowledge to construct and complete a practical project. Students should engage in activities that build confidence and understanding of the dynamics that are involved in the design and realisation of a major work. This understanding will be gained through a hands-on approach in the design studio and workshop. Practical projects reinforce the learning of these concepts.

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Teacher Provides examples of drawings used in industry, specifically those used in the industry visited, eg CAD versus hand-drawn and designer’s use of both mediums. Demonstrates the principles of isometric sketching/drawing. Demonstrates the use of Micro station V8 (drawing program) and drawing a simple tray in 3D. Demonstrates orthogonal drawings including orientation of top, front and side views, labelling and dimensions for entertainment unit.</p> <p>Students Complete task on basic isometric sketching. Investigate orthogonal projection. View Video titled ‘Technical Graphics’. Complete orthogonal/isometric task for homework and ‘Graphics for Design and Technology’ (as an introduction to perspective drawing and rendering) using grid paper. Produce their own drawings of entertainment unit, with regard to the requirements. Sketch a minimum of three design ideas. Sketches should be in isometric projection with explanatory notes explaining features.</p>	<p>Communication techniques Communication skills related to practical project work</p> <p>Graphical</p> <ul style="list-style-type: none"> • object drawing: views of items from different perspectives, including orthogonal (2D) and pictorial (3D) representations • sketching, rendering using a range of appropriate media • industry production drawing specifications: correct dimensions and proportions, accurate details on drawings and exploded views • Computer Aided Design (CAD) and presentation techniques <p>Communication</p> <ul style="list-style-type: none"> • reading and interpretation of technical drawings • industry standards • freehand drawing • sketching and annotations • production and working drawings • ICT techniques 	<ul style="list-style-type: none"> • interpret and prepare appropriate drawings required for the graphical communication/presentation of projects • use a range of manual and computer-based graphical techniques to communicate design details of project development • interpret and understand drawings • use sketches and freehand drawings to interpret ideas • prepare working drawings for the production of projects through both manual and ICT techniques 	

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Select and download text and graphical images of research for the entertainment unit.</p> <p>Teacher Demonstrates machinery use including:</p> <ul style="list-style-type: none"> – band saw – crosscut/combination saw – circular saw (not for student use) – router – reiteration of jig use, dovetail jig – mortising machine – biscuit cutter. <p>Demonstrates tool grinding and sharpening processes.</p> <p>Discussion – use of HSS and tungsten carbide and industrial diamond in edge tools.</p> <p>Students Experiment with and use common workshop tools and equipment such as band saw, compound saw, mortising and pedestal drill machine, plunge router and dovetail jig, biscuit cutter, Hoffman cutter, as required for the construction of their entertainment unit.</p> <p>Follow occupational health and safety guidelines as previously identified.</p>	<p>Literacy</p> <ul style="list-style-type: none"> • industry terminology • written reports utilising appropriate text types • materials/component list • management folio • ICT <p>Processes, tools and machinery</p> <ul style="list-style-type: none"> • manufacture of individual components as part of a project: <ul style="list-style-type: none"> – legs – rails – drawers – doors – tops – panels • carcass joints <ul style="list-style-type: none"> – rebate – scribed – dovetail – housing • widening joints <ul style="list-style-type: none"> – dowelled butt – biscuit • assembly of components, including: <ul style="list-style-type: none"> – test, fit and check joints – dry clamp – use of clamps – testing for square and flatness • finishing <ul style="list-style-type: none"> – preparation 	<ul style="list-style-type: none"> • compile reports using appropriate text types using information gathered • document relevant information into related folios • develop ICT skills in the preparation of related folios • use a broad range of processes through a variety of practical projects • use the appropriate industry processes, where possible in the production of projects • discuss processes used in industry, appropriate to the practical activities being undertaken, which may not be possible in the school 	

Project activities/integrated learning experiences	Students learn about	Students learn to	Registration
<p>Undertake joint construction for their entertainment unit, as required.</p> <p>Describe and sketch different parts of the assembly process and explain their importance.</p> <p>Apply suitable assembly techniques to their project.</p> <p>Apply suitable finishing techniques to their project as appropriate.</p> <p>Research tools and machinery used by industry, not available in the school workshop. Determine their use in relation to the project being undertaken and record in table format.</p>	<ul style="list-style-type: none"> - staining - filling - oils - finishes (oil and water based) - shellac - French polish - spray finishes <p>Tools and machinery</p> <ul style="list-style-type: none"> • use and maintenance of tools and machinery involved in the processes listed above 	<ul style="list-style-type: none"> • safely and competently use a wide a range of tools and machinery • conduct basic maintenance procedures on tools and machinery • describe tools and machinery used by industry, not available in the school, but appropriate to the practical activities being undertaken • identify and apply appropriate finishes to completed projects 	